

Topical Report  
TVA-NPOD89-A  
Rev. 2

NUCLEAR POWER  
ORGANIZATION DESCRIPTION

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ABSTRACT

The TVA Nuclear Power Organization Description (TVA-NPOD89-A) includes organization descriptions for Nuclear Power (NP) including the organization descriptions for Browns Ferry, Sequoyah, Watts Bar, and Bellefonte Nuclear Plants. This report contains the senior management, technical support and operating organization descriptions and organization charts that meet the "content" guidance of NRC's Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants-LWR Edition, Rev. 3 (November 1978), Sections 12.1.1 and 12.1.2. The format of this report is similar to that provided in the format and content document; however, the section numbers do not begin with the chapter number (i.e., 13, 17). Following NRC acceptance of this report, TVA intends to remove the organization descriptions from applicable licensing documents including the Final Safety Analysis Reports, Technical Specifications and Nuclear Performance Plans as they are revised and TVA-NPOD89-A will be referenced.

Qualifications requirements and training descriptions specified in the standard format document will continue to be addressed in each plant's Final Safety Analysis report. The TVA quality assurance organization and program description is contained in the TVA Nuclear Quality Assurance Plan (TVA-NQA-PLN89-A) and is not repeated herein.

## INTRODUCTION

The purpose of the Nuclear Power Organization Description (TVA-NPOD89-A) is to establish a controlled single source document and a disciplined process for communicating organization structure and position descriptions to the Nuclear Regulatory Commission (NRC). TVA-NPOD89-A will be referenced in future revisions of our license applications including the Safety Analysis Reports (SARs), Technical Specifications (TSs), the Nuclear Quality Assurance Plan, and other documents that may refer to the Tennessee Valley Authority's Nuclear Power organization. This topical report will be revised as necessary to reflect major organizational changes and at least annually in accordance with the requirements of 10 CFR 50.71.

## 1.0 Corporate Organization

TVA is an agency of the Federal Government whose major policies, programs, and organization are determined by a full-time, three-member Board of Directors. Members of the Board are appointed by the President and confirmed by the Senate for nine-year terms. The Board of Directors is assisted by TVA's Executive Committee, which shapes long-term business strategies, recommends major program initiatives, and guides the day-to-day operations.

### 1.1 Nuclear Power

TVA's Nuclear Power organization is responsible for nuclear plant engineering and design, construction, operation, quality assurance, and compliance with regulatory requirements. Nuclear Power plans and manages the nuclear energy supply program to meet the requirements of TVA's power program consistent with safety, environmental, quality, and economic objectives. The general organization of Nuclear Power, TVA is shown in Figure 1-1.

### 1.2 Senior Vice President, Nuclear Power (NP)

The Senior Vice President, Nuclear Power is the senior nuclear manager with direct authority and responsibility for the management, control, and supervision of TVA's nuclear power program and for the execution of nuclear programs, policies, and decisions that the Board of Directors approves or adopts. The Senior Vice President reports directly to the President, Generating Group, and also reports to the TVA Board of Directors.

The Senior Vice President, Nuclear Power is responsible for the overall safety, efficiency, and economy of nuclear operations. The Senior Vice President establishes management and operating policies and procedures related to TVA's nuclear power program and is responsible for personnel, planning, scheduling, licensing, engineering and design, construction, operation, quality assurance, training, maintenance, technical and administrative matters related to that program. The Senior Vice President coordinates the activities and functions of Nuclear Power with other TVA organizations in order to carry out TVA corporate policy and to meet corporate goals and objectives. This position is responsible for all aspects of TVA's interface and relations with the United States Nuclear Regulatory Commission and other entities with jurisdiction over or interest in TVA's nuclear power program.

The Senior Vice President, Nuclear Power is responsible for the development and implementation of an effective radiological emergency preparedness program; directing shutdown of nuclear facilities when deemed appropriate; and the development of long-range strategic plans for all TVA nuclear programs, activities and facilities.

The Senior Vice President, Nuclear Power is assisted in carrying out these responsibilities by the Manager, Nuclear Business Operations; the Manager, Employee Concern Program; the Manager of Nuclear Human Resources; the vice presidents of Nuclear Assurance, Licensing, and Fuels; Nuclear Operations; Nuclear Projects; and New Generation and Bellefonte Construction.

The Senior Vice President, Nuclear Power, accomplishes the responsibilities through four vice presidents and three staff groups. The Vice Presidents' functions are described in sections 2.0 through 5.0. The staff groups are discussed below.

#### Nuclear Business Operations

The Manager, Nuclear Business Operations is responsible for developing, coordinating, and overseeing of a strong business and fiscal management program throughout Nuclear Power (NP) including business planning and budgeting. This manager also provides for the monitoring and reporting of NP goals and objectives.

#### Employee Concern Program (ECP)

The Manager, Employee Concern Program, is responsible for developing, coordinating, directing, and managing a viable Employee Concern Program for NP. The Manager, Employee Concern Program has full-time site representatives at each nuclear site and the central office. Each location utilizes standard procedures, documentation and record keeping and contributes to a common data base of information regarding employee concerns. The Employee Concern Program provides employees with a means for reporting their concerns to a high-level within TVA's nuclear organization if, for any reason, the employees do not believe that their supervisors would properly respond to expressing of concern.

#### Nuclear Human Resources (NHR)

The Manager of NHR is responsible for developing, coordinating, directing, and managing a viable human resources program for NP. Elements of the program include staffing and employment, compensation administration, labor relations, affirmative action and equal opportunity employment, employee communication, organization development, human resource policy and procedures development, management development and training; and ensuring suitability of employees service by the implementation of the Fitness for Duty Program. The Manager of NHR provides guidance and assistance to senior line managers and human resource specialists to ensure that TVA and NP Human Resources policies and standards are carried out in an efficient and effective manner.

# NUCLEAR POWER

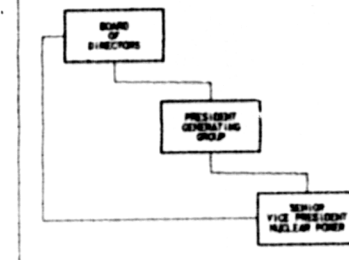
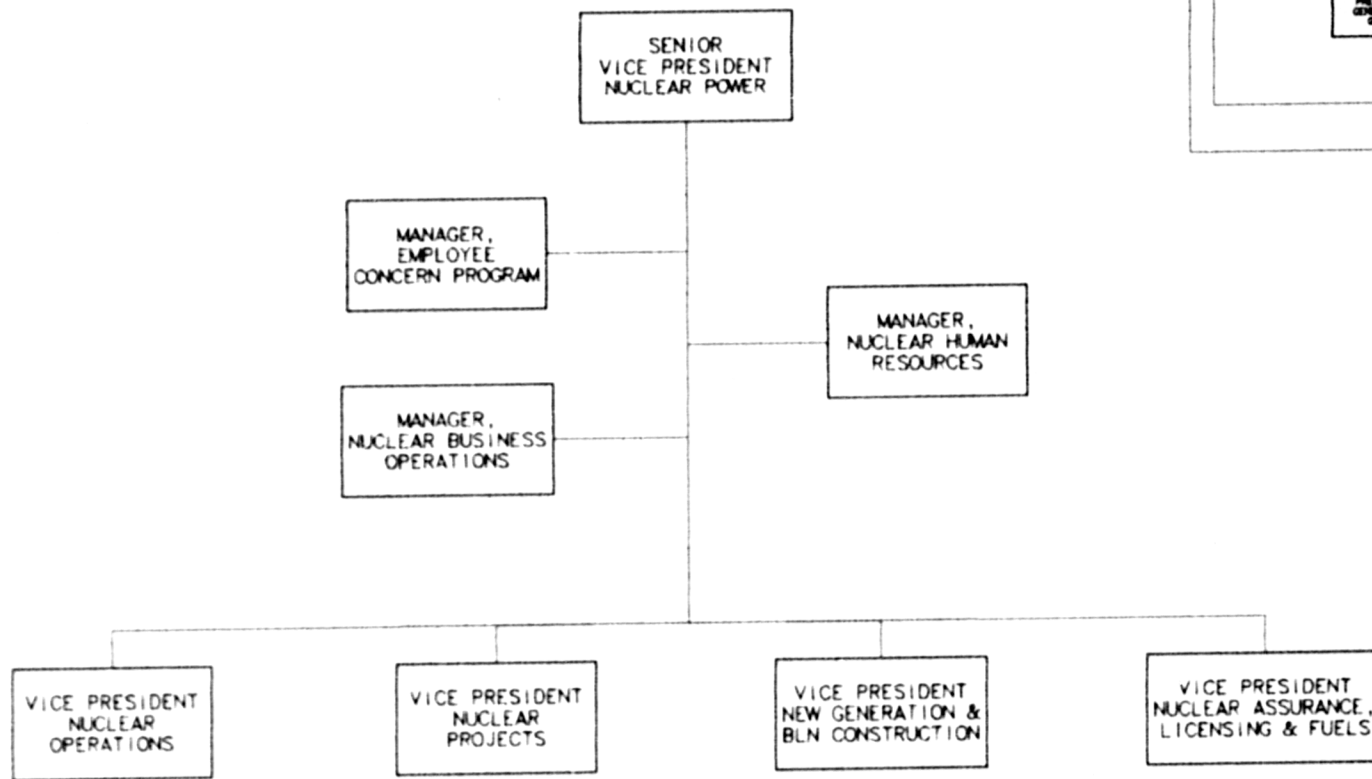


FIGURE 1-1

## 2.0 Vice President, Nuclear Assurance, Licensing, and Fuels (NAL&F)

The Vice President, NAL&F, is responsible for the general management and oversight of the programmatic activities of quality assurance, licensing, nuclear fuel, nuclear experience review, industry programs, Nuclear Manager's Review Group, Nuclear Safety Review Board, and Materials Contracts and Administrative Support. Management support to other organizations within NP is provided in the areas of nuclear procedures system, document control, and records management. In addition, NAL&F provides oversight coordination of reviews and evaluation of NP activities including quality performance.

The Vice President, NAL&F has six principal reports and accomplishes responsibilities through the following managers:

General Manager, Materials, Contracts, & Administrative Support  
Manager, Nuclear Licensing & Regulatory Affairs  
Manager, Nuclear Fuels  
Manager, Nuclear Quality Assurance  
Manager, Nuclear Manager's Review Group  
Chariman, Nuclear Safety Review Board

See Figure 2-1 for NAL&F Organization Chart

## 2.1 Nuclear Quality Assurance (NQA)

The Manager, NQA reports directly to the Vice President, NAL&F, and has an independent reporting relationship to the Senior Vice President on quality matters. This is to ensure that the quality organization has direct access to appropriate levels of management and sufficient independence and organizational freedom to be able to effectively assure conformance to quality assurance program requirements. All nuclear quality assurance and quality control functions are consolidated under the Manager, NQA.

The Manager, NQA, is responsible for:

- A. Developing and administering the Nuclear Quality Assurance Plan and the NQA organization procedures required to ensure that TVA activities provide the required degree of safety and reliability;
- B. Auditing, inspecting, and monitoring the conduct of TVA activities to ensure that they provide the required high degree of safety and reliability and are carried out consistent with applicable laws, regulations, regulatory commitments, licenses, and other requirements;
- C. Performing assessments on a planned and periodic basis to comprehensively determine the effectiveness of the program and its implementation and submitting results of assessments to appropriate management;
- D. Stopping work or further processing, delivery, or installation or taking other comparable actions when warranted to control and/or

prevent the use of nonconforming materials or continuance of activities adverse to quality; and

- E. Establishing requirements for QA training and for monitoring the implementation and effectiveness of that training.

Descriptions of the NQA Manager's organization and responsibilities are described in detail in TVA's Nuclear Quality Assurance Plan TVA-NQA-PLN 89-A.

## 2.2 Nuclear Licensing & Regulatory Affairs (NL&RA)

The Manager, NL&RA, reports to the Vice President, NAL&F, and is responsible for the following activities:

- A. Serving as the principal interface with the NRC: provides information and interpretations concerning regulatory requirements; directs the preparation for and conduct of NRC audits, inspections and meetings; ensures the interpretation or resolution of NRC requests or imposed regulatory changes; and ensures compliance with NRC reporting requirements;
- B. Establishing policy, procedures and oversight to maintain a licensing program for obtaining and maintaining required licenses and permits for new, recovering and operating nuclear plants;
- C. Providing management and oversight of the internal and external operations experience review, generic issues, and the corporate commitment tracking programs;
- D. Ensuring resolution of NRC issues by developing action plans and managing implementation of those plans;
- E. Managing the coordination of the NP interface with nuclear industry groups including INPO, EPRI, NUMARC, nuclear owner's groups, and other nuclear industry-wide programs; and
- F. Managing and coordinating nuclear insurance programs and procedures.

## 2.3 Nuclear Fuels

The Manager, Nuclear Fuels, reports to the Vice President, NAL&F, and is responsible for the following:

- A. Managing TVA nuclear fuel cycle activities (from uranium acquisition through spent fuel disposal) to supply fuel, fuel-related components, and services;
- B. Providing support and technical direction to the nuclear sites for fuel utilization and nuclear fuel performance; and
- C. Providing reactor core design and analysis including core-related transient and safety analysis.



#### 2.4 Nuclear Manager's Review Group (NMRG)

The Manager, NMRG, reports to the Vice President, NAL&F, and is responsible for the following activities:

- A. Developing and implementing a review and evaluation program under the control and direction of the Senior Vice President, Nuclear Power to assess activities associated with the design, construction, operation, and support of TVA's nuclear plants;
- B. Providing an independent evaluation of the effectiveness of NP programs and their implementation;
- C. Periodically providing reports to senior management;
- D. Performing the Independent Safety Engineering (ISE) function as set forth in NUREG 0737 including reviews, surveillances of plant activities, and examinations of plant operating experience reviews; and
- E. Performing special assessments as requested by senior management.

#### 2.5 Nuclear Safety Review Board (NSRB)

The Chairman, NSRB, is responsible for developing and implementing procedures consistent with NP policy and NRC requirements to conduct independent nuclear safety assessment and review of TVA's nuclear power plants. Individual safety review boards are in place for the Browns Ferry, Sequoyah, and Watts Bar Nuclear Plants. These boards are composed of senior TVA managers and advisors to the chairman who are not employed by TVA. The Chairman directs independent safety reviews of TVA's nuclear plants; manages the activities of the NSRBs to ensure that responsibilities and functions are in accordance with appropriate Technical Specification requirements; and recommends plant safety improvements to the Senior Vice President. The Chairman or designee chairs each meeting of the NSRBs; approves and transmits minutes of NSRB meetings; and issues reports consistent with the NSRB charter.

## 2.6 Materials, Contracts, and Administrative Support (MC&AS)

The General Manager, MC&AS, is responsible for materials, corporate records, corporate policy and procedures, contracts and procurement, and acts as liaison with corporate information systems. The General Manager, MC&AS, has three direct reports and administers these responsibilities through the following managers:

Nuclear Materials Manager  
Administrative Support and Procedures Manager  
Contracts and Procurement Manager

The General Manager, MC&AS, also provides direction to the Senior Vice President's Central Staff.

### 2.6.1 Nuclear Materials

The Nuclear Materials Manager is responsible for development, coordination, and implementation of the materials management and procurement program for Nuclear Power. In addition, the Nuclear Materials Manager is responsible for the management of purchase orders for NP materials, Materials Data Base control, nuclear material classification, and the Nuclear Distribution Center. This manager is responsible for development of the materials inventory control and material application programs and provides support to and oversight of site implementation of these and other materials activities for Nuclear Power.

### 2.6.2 Administrative Support and Procedures (AS&P)

The AS&P Manager is responsible for the Corporate Nuclear Procedure System, Records Management, Central Emergency Control Center support, the Central Office document control records management unit, and Chattanooga Administrative Services. Support is provided to the site by developing policy for and establishing consistency in the plants by overseeing and maintaining a system of corporate-level procedures for site standardization. In addition, the AS&P Manager establishes and provides overall management and coordination of the Nuclear Power system of standards and business practices and acts as the liaison with corporate information systems.

### 2.6.3 Contracts and Procurement (C&P)

The Contracts and Procurement Manager is responsible for the development of contract policy including oversight and support to line organizations in the solicitation, negotiation, award, and administration of contracts for personal and professional services, including construction/installation services. The C&P Manager is also responsible for all specialty agreements such as user/owner groups and joint activity commercial endeavors. This manager provides oversight for line management adherence to contract policy.

# NUCLEAR POWER ORGANIZATION CHART NUCLEAR ASSURANCE, LICENSING AND FUELS

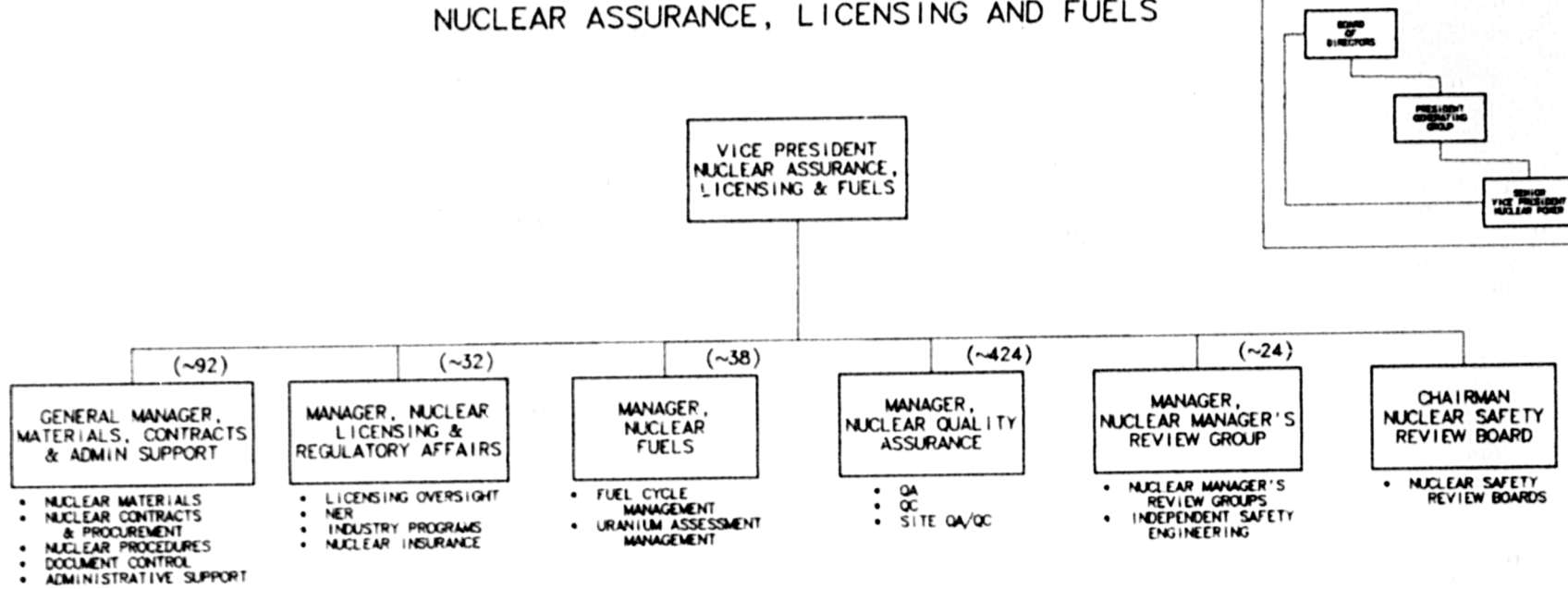


FIGURE 2-1

### 3.0 Vice President, Nuclear Operations

The Vice President, Nuclear Operations is responsible for the safe, efficient, and reliable operation of Nuclear Power operating sites and reviews and concurs in plant staffing and organizational matters. This position ensures that managed activities are conducted in accordance with appropriate Federal regulations and TVA policies and procedures.

Nuclear Operations provide operations and maintenance support, as well as operational policy for units under construction/restart in order to ensure operational readiness.

The Vice President, Nuclear Operations has three principal reports and administers responsibilities through them. These principal reports are as follows:

Vice President, Operation Services  
Vice President, Browns Ferry Nuclear Plant (BFN) Operations  
Vice President, Sequoyah Nuclear Plant (SQN) Site

See Figure 3-1 for the Nuclear Operations organization chart.

### 3.1 Vice President, Operation Services (OS)

The Vice President, Operation Services is responsible for providing necessary support to ensure NP operating sites are safe, efficient, and reliable. This position ensures that managed activities are conducted in accordance with appropriate Federal regulations and TVA policies and procedures.

The Vice President, OS has four principal reports and administers responsibilities through the following managers:

Manager, Technical Programs Support  
Manager, Operations and Maintenance Support  
Manager, Nuclear Training  
Manager, Operations Support Services

See Figure 3-2 for the OS organization chart.

#### 3.1.1 Technical Programs (TP)

The Manager, TP, reports to the Vice President, Operation Services, and assists senior management with establishing policy for and maintaining consistency in the plants with a assigned functional areas. The Manager, TP provides technical support and assistance to the line organizations and assists the plants with solving problems in radiological control, radioactive waste management, environmental protection, chemistry, emergency preparedness, fire protection, industrial safety, and nuclear security. The TP organization establishes and implements the offsite emergency response plan and coordinates with the sites to

provide internal consistency and interface control. TP also establishes programmatic oversight of the security plan for nuclear power sites.

### 3.1.2 Operations and Maintenance Support (O&MS)

The Manager, O&MS is responsible for providing consistent operating guidelines and standards for the Nuclear Operations organization, including:

- A. Development of consistently applied nuclear standards, procedures, and guidelines for operations, outages, and maintenance;
- B. Specialized assistance to the plants in equipment and system maintenance, maintenance systems, techniques, and improvement programs, welding, and field engineering support;
- C. Long range operational planning including major work and outage planning and coordination; and
- D. Oversight and coordination of operations and maintenance manpower and training needs and schedules.

### 3.1.3 Nuclear Training (NT)

The Manager, NT reports to the Vice President, OS and is responsible for establishing, maintaining, and implementing the Nuclear Power Training and Qualification Program, which includes technical training for plant operations, maintenance, and technical personnel and General Employee Training. The Site Training Managers receive technical and programmatic direction and support from the Manager, NT, and receive day-to-day management oversight and direction on site training needs from the assigned site manager. The Manager, NT is also responsible for managing and coordinating with the line organizations in order to attain and maintain accreditation by the National Nuclear Accrediting Board in the applicable functional plant staff areas.

### 3.1.4 Operations Support Services (OSS)

The Manager, OSS, is responsible for providing staff support to the Vice President, OS, in the areas of goal setting and performance reporting, financial and budgeting coordination, development of procedures and standards, and related management support.

NUCLEAR POWER  
NUCLEAR OPERATIONS

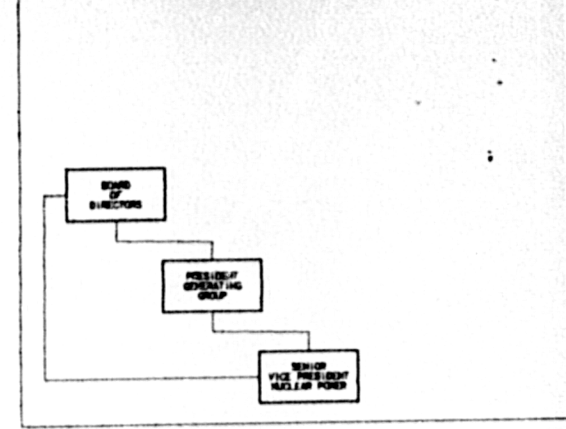
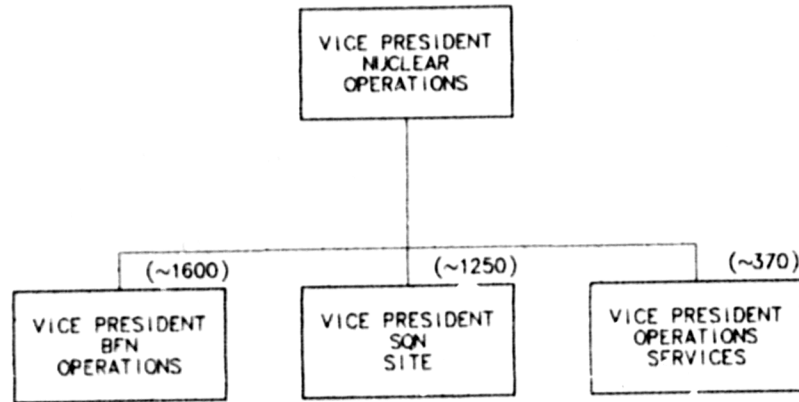


FIGURE 3-1

NUCLEAR POWER  
 NUCLEAR OPERATIONS  
 OPERATIONS SERVICES

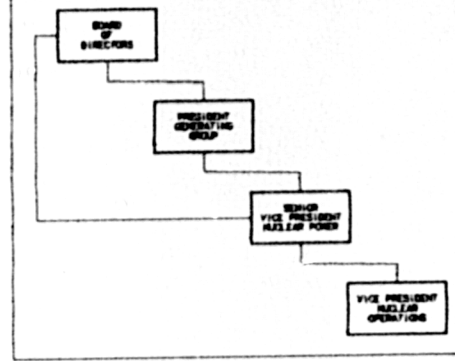
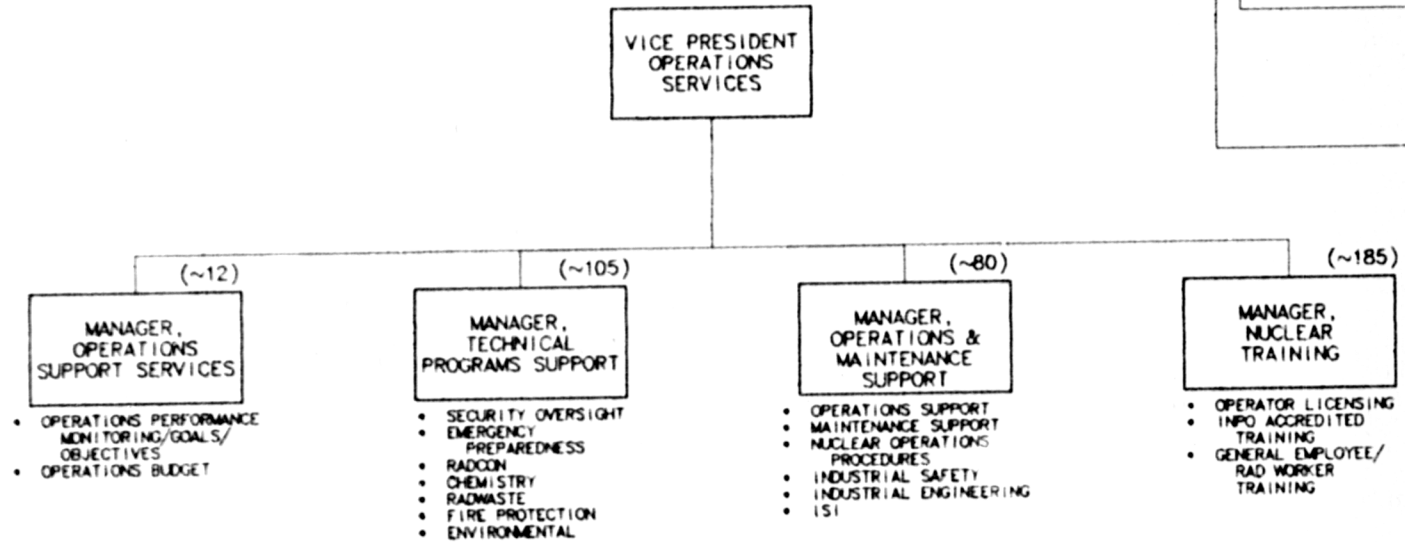


FIGURE 3-2

### 3.2 Vice President, BFN Operations (BFN)\*

The Vice President, BFN Operations is responsible and accountable for Unit 2 and basic site-wide activities including operations, modifications, support, licensing, quality assurance, and engineering services. The Vice President, BFN Operations, determines the nature and extent of onsite and offsite support services required to support assigned site operations in accordance with Nuclear Power policy and procedures. The Vice President, BFN Operations, is responsible for the quality of work activities and provides plant operations and maintenance support for Units 1 and 3.

The Vice President, BFN Operations, has five principal reports and administers responsibilities through the following managers:

Site Support Manager  
Site Controller  
Engineering and Modifications Manager  
Site Licensing Manager  
Plant Manager

Two other managers report functionally to the Vice President, BFN Operations. They are the Site Quality Manager and Site Human Resource Manager.

See Figure 3-3 for the BFN Operations organization chart.

#### 3.2.1 Site Support

The Site Support Manager provides general management and oversight of a variety of staff and support functions, including:

- a. Administrative services, procedure coordination, and document control;
- b. Site industrial safety support;
- c. Onsite radiological emergency preparedness program;
- d. Site facilities management;
- e. Site security; and
- f. Onsite management interface and coordination of site ADP.

\* TVA NP will have consistent plant organizations for operating units. The remainder of the site organization will be structured to support recovery and restart of remaining units.



### 3.2.2 Site Controller

The Site Controller is responsible for providing financial and budget support to the site. The Site Controller coordinates and monitors the preparation of all budgets, capital or recovery project proposals, multiyear plans and special financial analyses; ensures compliance with TVA, NP and site financial management and accounting procedures and instructions; establishes systems for measuring, controlling, and reporting site financial performance; and provides cost analysis and estimating support.

### 3.2.3 Engineering and Modifications

The Engineering and Modifications Manager provides overall management and direction using project management concepts to supervise the assigned engineering and modifications organizations. This responsibility includes providing administrative and functional direction on scope, schedule, budget, and provide the manpower to perform assigned tasks. Corporate Engineering is responsible for engineering technical direction, establishment and maintenance of engineering standards and processes, and monitoring oversight of engineering activities of the sites.

### 3.2.4 Site Licensing Manager

The Site Licensing Manager is responsible for the following activities:

- a. Serving as the principal on site interface with the NRC, provides information and interpretations concerning regulatory requirements; directs the preparation for and conduct of NRC audits, inspections and meetings; ensures the interpretation or resolution of NRC requests or imposed regulatory changes; and ensures compliance with NRC reporting requirements;
- b. Establishing and maintaining a site licensing program for obtaining and maintaining required licenses and permits;
- c. Ensuring resolution of NRC issues by developing action plans and managing implementation of those plans;
- d. Providing management of the site operating experience reviews, generic issues, and the commitment tracking programs; and
- e. Coordination of site corrective action programs.

The Manager, Nuclear Licensing and Regulatory Affairs, provides oversight and technical direction to the Site Licensing Manager and is responsible for establishment and maintenance of related corporate standards and programs.

### 3.2.5 Plant Manager

The primary responsibility and authority for ensuring safe, reliable, and efficient plant operations in conformance and compliance with all Federal, State, and local laws and regulations are vested in the Plant Manager. The Plant Manager is responsible for ensuring that hardware and software modifications or revisions made subsequent to the original design or construction of the project are authorized and carried out in accordance with procedures and instructions. This position is responsible for ensuring that established acceptance criteria are satisfied before plant systems or components are returned to normal operation. The Plant Manager is responsible for ensuring that adequate and complete records and reports are developed and maintained and that plant personnel are appropriately trained and qualified for their jobs. The plant manager provides operation and maintenance support to Units 1 and 3.

The Plant Manager has four principal reports and administers responsibilities through the following managers:

Maintenance Manager  
Radiological Control Manager  
Plant Operations Manager  
Technical Support Manager

See Figure 3-4 for the Plant Manager's organization chart.

#### a. Maintenance

The Maintenance Manager is responsible for planning, directing, and managing the plant main power block maintenance program to ensure that equipment and systems are maintained in accordance with operability and reliability engineering practices and requirements. This position manages the development, implementation, and maintenance of the site measuring and test equipment tool rooms.

TVA's Power Transmission and Customer Service organization is responsible for the maintenance and testing of the relaying associated with the transmission system, switchyard maintenance, generator protection, and the auxiliary power system. This organization is also responsible for the maintenance and testing of all in-plant radios, T1 spans (digital method of voice or data transmissions), and all external plant communications systems (with the exception of the Bell system and AT&T equipment).

This organization is under the administrative supervision of the Power Transmission and Customer Service-Muscle Shoals Area Manager and under the functional supervision of the plant Electrical Maintenance Manager.

b. Radiological Control

The Radiological Control Manager is responsible for radiological control activities at the plant. This includes developing, implementing, and managing the site radiological program with emphasis on meeting as low as reasonably achievable (ALARA) radiation exposure goals. This Manager develops and applies radiation standards and procedures; reviews and recommends radiation protection requirements and management controls; and assists in the plant training program, providing specialized training in radiation protection. The Radiological Control Manager is responsible for conducting a comprehensive onsite radiological monitoring before, during, and after plant startup and providing radiological control coverage for all operations including maintenance, fuel handling, decontamination, and radiological waste disposal. The manager is responsible for personnel and plant radiation monitoring and maintains continuing records of personnel exposures, plant radiation, and contamination levels.

c. Plant Operations Manager

The Plant Operations Manager has overall responsibility for plant operation and overall execution of plant operational activities.

The Plant Operations Manager has three principal reports:

Operations Superintendent  
Schedule/Work Control Superintendent  
Chemistry and Environmental Superintendent

Operations

The Operations Superintendent is responsible for all plant operations. The Superintendent manages refueling operations, startup, operational testing, water and waste processing, and plant operations. The Superintendent is responsible for coordinating and scheduling the training program for all operations personnel as well as providing the nucleus for emergency response teams.

Within Operations are six shift crews. The minimum shift crew for one unit will consist of the Shift Operations Supervisor (SRO), Assistant Shift Operations Supervisor (ASRO), four Unit Operators (RO), and four Assistant Unit Operators (AUOs). One additional SRO is required for two and three unit operation. Additional operators are assigned as required by the Technical Specifications to meet the requirements of 10 CFR 50.54m(2). Plant management and technical support personnel will be present or on call at all times.

See Figure 3-5 for the Operations Superintendent organization chart.

#### Shift Crew Composition:

The Shift Operations Supervisor on duty is in direct charge of and has direct responsibility for the plant, including the startup, operation, and shutdown of the reactor and turbine generators. The Assistant Shift Operations Supervisor is under the immediate supervision of the Shift Operations Supervisor. This position is responsible for the operation of one unit or for specific plant areas.

The Unit Operator is under the immediate supervision of the Assistant Shift Operations Supervisor responsible for that unit and the general supervision of the Shift Operations Supervisor. This position performs those functions which require the attention of a licensed individual. This position is responsible for the safe and efficient operation of one unit from the control room or from local control stations.

The Assistant Unit Operator is under the immediate supervision of the Unit Operator and the general supervision of the Assistant Shift Operations Supervisor. This position performs assigned routine inspections and manipulative operations. This position assists in the operation and performs work requirements within the defined area of the plant.

The Shift Technical Advisor reports to the Shift Operations Supervisor in the control room during normal and off-normal operating plant conditions. The Shift Technical Advisor serves in an advisory capacity to the Shift Operations Supervisor.

The relief of any shift position is made such that the minimum required shift crew complement is always maintained. Such reliefs are formal and appropriate responsibilities are transferred at the time of relief.

A duty radiochemical analyst is under the functional supervisor of the Shift Operations Supervisor. The analyst's duties consist of periodic sampling of reactor coolant, feedwater, main steam, condensate, and other plant process streams as required.

Duty health physics technicians are under the functional supervision of the Shift Operations Supervisor. They perform routine radiation surveys, personnel monitoring activities, and other assigned duties. These personnel keep the Shift Operations Supervisor informed of radiation hazards and perform special surveys as requested.

#### Schedule/Work Control

The Work Control Superintendent has the overall responsibility for ensuring that ongoing work activities during operating conditions and outages are planned for execution in a timely and efficient manner and in accordance with approved schedules and scopes of work. The Superintendent develops overall work schedules, defines outage scope and content, and reviews all work requests. The Superintendent plans all outages, establishes work priorities, and coordinates shift turnover.

#### Chemistry and Environmental

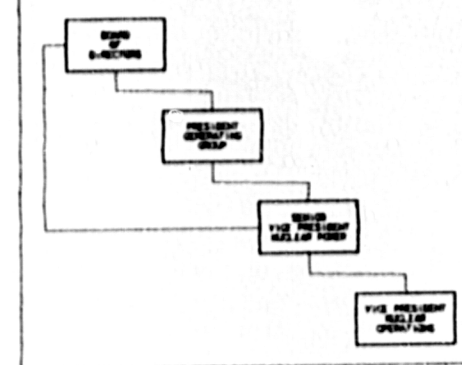
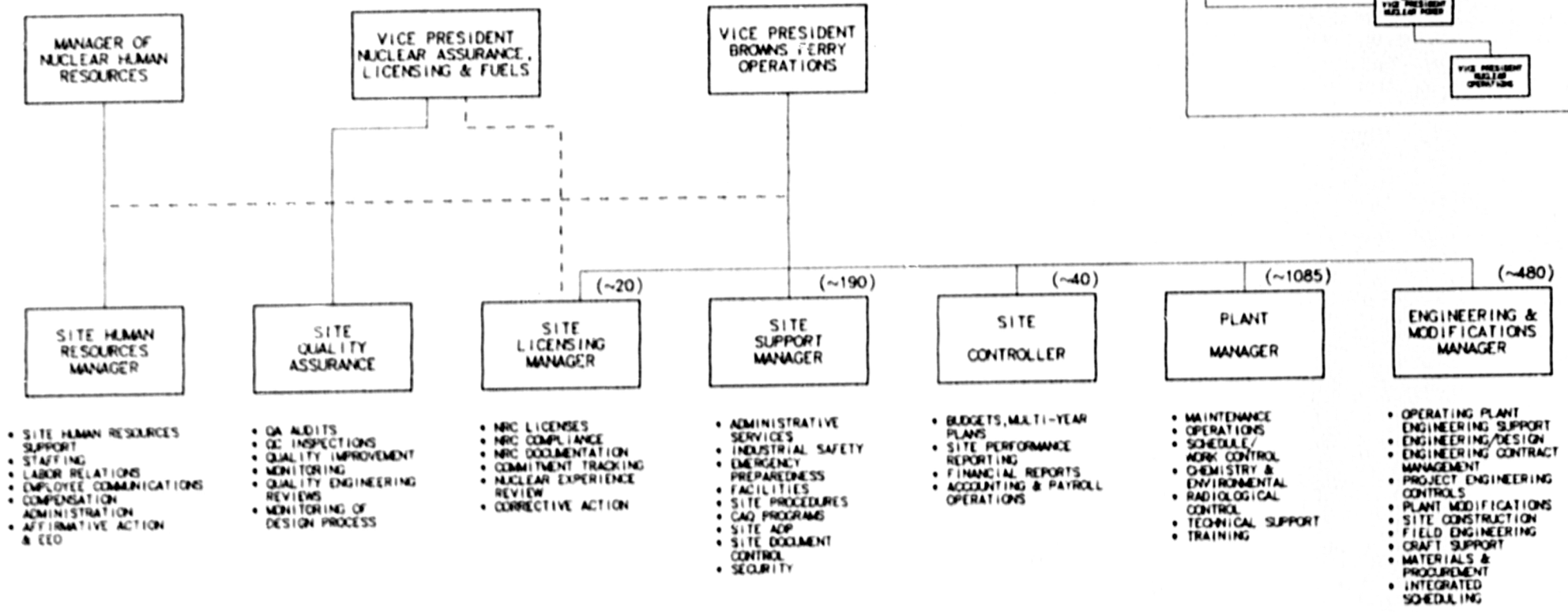
The Chemistry and Environmental Superintendent is responsible for implementation of effective site programs for plant chemistry, radiochemistry and environmental compliance.

#### d. Technical Support

The Technical Support Manager is responsible for technical direction and staff assistance in the area of systems engineering. Systems engineering includes nuclear, reactor, mechanical, chemical, electrical, and instrumentation and controls. Responsibilities include plant and equipment performance monitoring and tests, reactor engineering, integrated system operation and post modification and major maintenance testing.

Technical Support carries out a comprehensive program of plant tests, studies, and investigations for the purpose of monitoring the reactor, engineered safeguards, NSSS equipment, and balance-of-plant equipment directed at ensuring compliance with operating licenses, technical specifications, and improving plant and system efficiency.

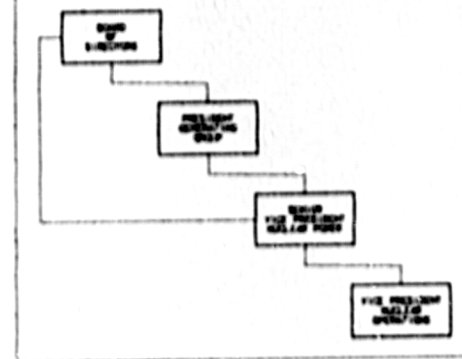
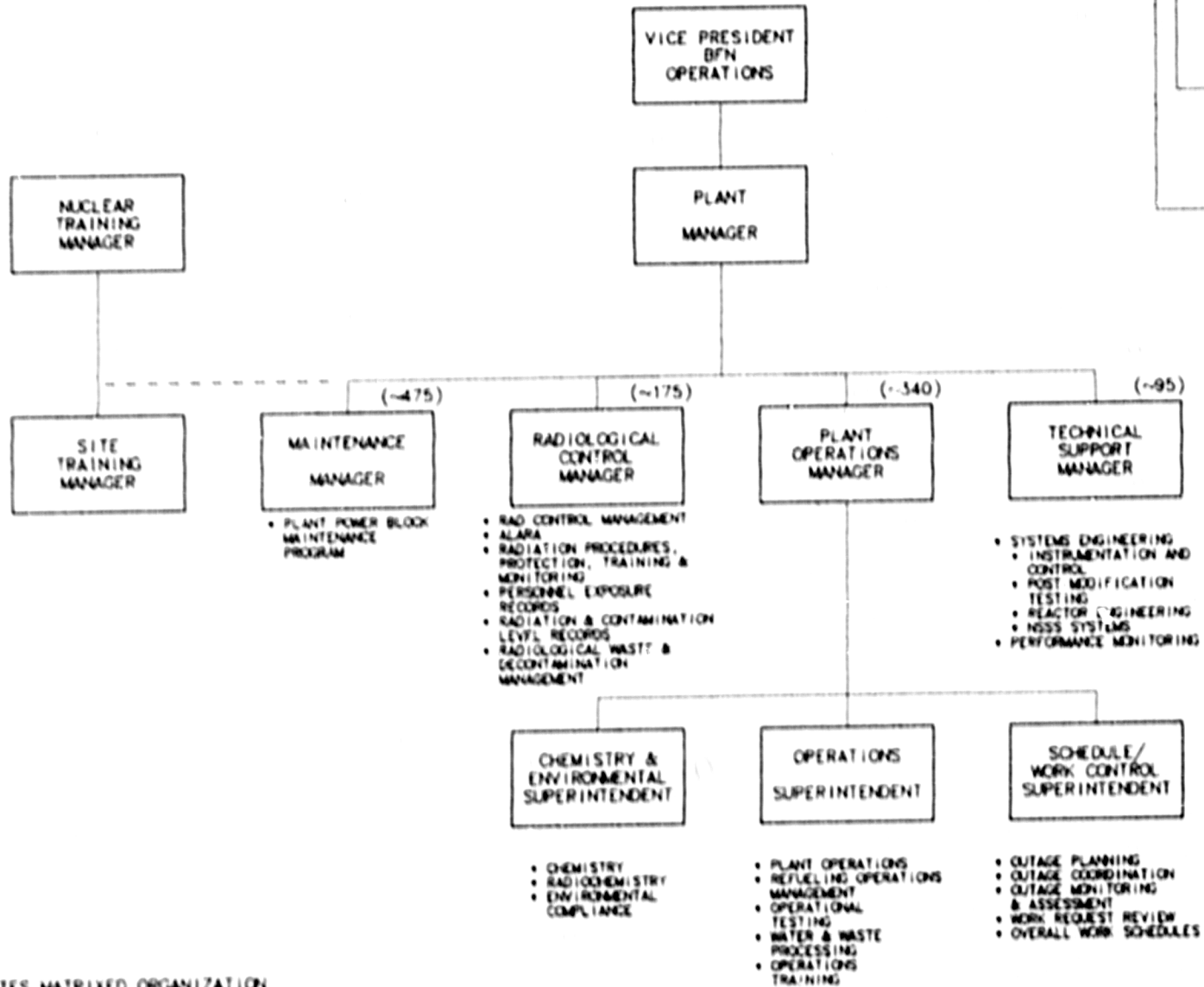
# NUCLEAR POWER NUCLEAR OPERATIONS BROWNS FERRY OPERATIONS (THREE UNIT PLANT)



- - - INDICATES MATRIXED ORGANIZATION AND SHOWS DAY-TO-DAY FUNCTIONAL SUPERVISION

FIGURE 3-3

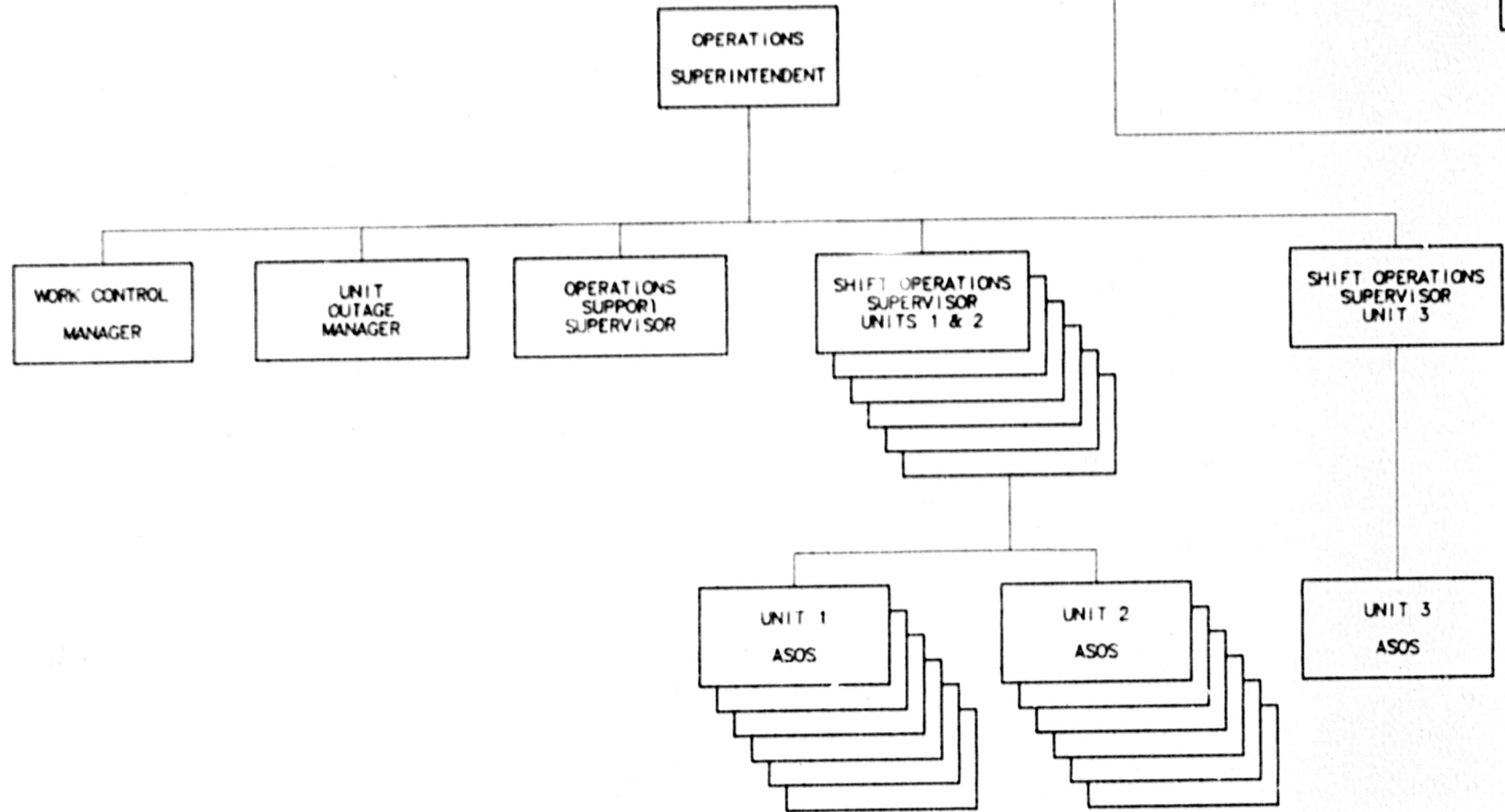
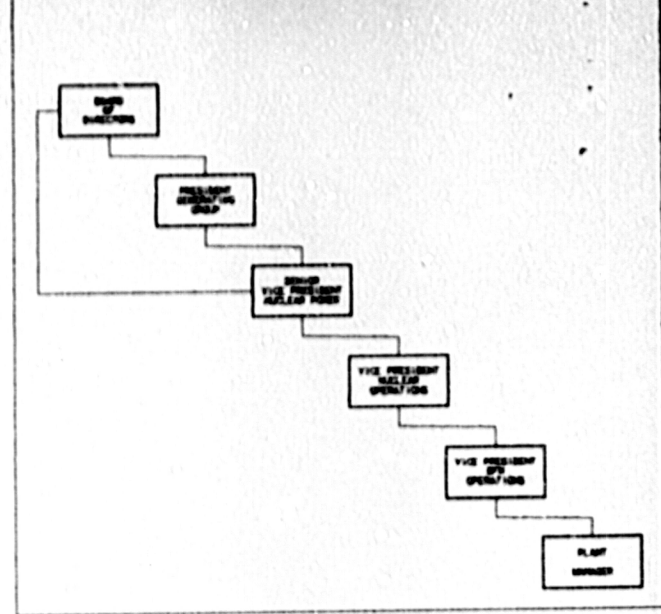
NUCLEAR POWER  
 NUCLEAR OPERATIONS  
 BROWNS FERRY OPERATIONS  
 (THREE UNIT PLANT)  
 PLANT MANAGER



- - - INDICATES MATRIXED ORGANIZATION AND SHOWS DAY-TO-DAY FUNCTIONAL SUPERVISION

FIGURE 3-4

NUCLEAR POWER  
 NUCLEAR OPERATIONS  
 BROWNS FERRY OPERATIONS  
 (THREE UNIT PLANT)  
 PLANT MANAGER  
 PLANT OPERATIONS  
 OPERATIONS SUPERINTENDENT





### 3.3 Vice President, SQN Site (SQN)

The Vice President, SQN is responsible and accountable for activities at the site, including operations, modifications, support, licensing, quality assurance, and engineering services. The Vice President, SQN manages activities associated with the Sequoyah plant and determines the nature and extent of onsite and offsite support services required to support site operations in accordance with NP policy and procedures. The Vice President, SQN is responsible for the quality of work activities.

The Vice President, SQN has five principal reports and administers responsibilities through the following managers:

Site Support Manager  
Site Controller  
Engineering and Modifications Manager  
Site Licensing Manager  
Plant Manager

Two other managers report only functionally to the Vice President, SQN. They are the Site Quality Manager and Site Human Resource Manager.

See Figure 3-6 for the SQN organization chart.

#### 3.3.1 Site Support

The Site Support Manager provides general management and oversight of a variety of staff and support functions, including:

- a. Administrative services, procedure coordination, and document control;
- b. Site industrial safety support;
- c. Onsite radiological emergency preparedness program;
- d. Site facilities management;
- e. Site security; and
- f. Onsite management interface and coordination of site ADP.

### 3.3.2 Site Controller

The Site Controller is responsible for providing financial and budget support to the site. The Site Controller coordinates and monitors the preparation of all budgets, capital or recovery project proposals, multiyear plans and special financial analyses; ensures compliance with TVA, NP and site financial management and accounting procedures and instructions; establishes systems for measuring, controlling, and reporting site financial performance; and provides cost analysis and estimating support.

### 3.3.3 Engineering and Modifications

The Engineering and Modifications Manager provides overall management and direction using project management concepts to supervise the assigned engineering and modifications organizations. This responsibility includes providing administrative and functional direction on scope, schedule, budget, and provide the manpower to perform assigned tasks. Corporate Engineering is responsible for engineering technical direction, establishment and maintenance of engineering standards and processes, and monitoring oversight of engineering activities of the sites.

### 3.3.4 Site Licensing Manager

The Site Licensing Manager is responsible for the following activities:

- a. Serving as the principal on site interface with the NRC, provides information and interpretations concerning regulatory requirements; directs the preparation for and conduct of NRC audits, inspections and meetings; ensures the interpretation or resolution of NRC requests or imposed regulatory changes; and ensures compliance with NRC reporting requirements;
- b. Establishing and maintaining a site licensing program for obtaining and maintaining required licenses and permits;
- c. Ensuring resolution of NRC issues by developing action plans and managing implementation of those plans;
- d. Providing management of the site operating experience reviews, generic issues, and the commitment tracking programs; and
- e. Coordination of site corrective action programs.

The Manager, Nuclear Licensing and Regulatory Affairs, provides oversight and technical direction to the Site Licensing Manager and is responsible for establishment and maintenance of related corporate standards and programs.

### 3.3.5 Plant Manager

The primary responsibility and authority for ensuring safe, reliable, and efficient plant operations in conformance and compliance with all Federal, State, and local laws and regulations are vested in the Plant Manager. The Plant Manager is responsible for ensuring that hardware and software modifications or revisions made subsequent to the original design or construction of the project are authorized and carried out in accordance with procedures and instructions. This position is responsible for ensuring that established acceptance criteria are satisfied before plant systems or components are returned to normal operation. The Plant Manager is responsible for ensuring that adequate and complete records and reports are developed and maintained and that plant personnel are appropriately trained and qualified for their jobs.

The Plant Manager has four principal reports and administers responsibilities through the following managers:

Maintenance Manager  
Radiological Control Manager  
Plant Operations Manager  
Technical Support Manager

See Figure 3-7 for the Plant Manager's organization chart.

#### a. Maintenance

The Maintenance Manager is responsible for planning, directing, and managing the plant main power block maintenance program to ensure that equipment and systems are maintained in accordance with operability and reliability engineering practices and requirements. This position manages the development, implementation, and maintenance of the site measuring and test equipment tool rooms.

TVA's Power Transmission and Customer Service organization is responsible for the maintenance and testing of the relaying associated with the transmission system, switchyard maintenance, generator protection, and the auxiliary power system. This organization is also responsible for the maintenance and testing of all in-plant radios, T1 spans (digital method of voice or data transmissions), and all external plant communications systems (with the exception of the Bell system and AT&T equipment).

This organization is under the administrative supervision of the Power Transmission and Customer Service-Muscle Shoals Area Manager and under the functional supervision of the plant Electrical Maintenance Manager.

b. Radiological Control

The Radiological Control Manager is responsible for radiological control activities at the plant. This includes developing, implementing, and managing the site radiological program with emphasis on meeting as low as reasonably achievable (ALARA) radiation exposure goals. This Manager develops and applies radiation standards and procedures; reviews and recommends radiation protection requirements and management controls; and assists in the plant training program, providing specialized training in radiation protection. The Radiological Control Manager is responsible for conducting a comprehensive onsite radiological monitoring before, during, and after plant startup and providing radiological control coverage for all operations including maintenance, fuel handling, decontamination, and radiological waste disposal. The manager is responsible for personnel and plant radiation monitoring and maintains continuing records of personnel exposures, plant radiation, and contamination levels.

c. Plant Operations Manager

The Plant Operations Manager has overall responsibility for plant operation and overall execution of plant operational activities.

The Plant Operations Manager has three principal reports:

Operations Superintendent  
Schedule/Work Control Superintendent  
Chemistry and Environmental Superintendent

Operations

The Operations Superintendent is responsible for all plant operations. The Superintendent manages refueling operations, startup, operational testing, water and waste processing, and plant operations. The Superintendent is responsible for coordinating and scheduling the training program for all operations personnel as well as providing the nucleus for emergency response teams.

Within Operations are six shift crews. The minimum shift crew for one unit will consist of the Shift Operations Supervisor (SRO), two Unit Operators (RO), and two Assistant Unit Operators (AUOs). One assistant SRO, one additional RO, and one AUO, will be required for 2-unit operation. Additional operators are assigned as required by the Technical Specifications to meet the requirements of 10 CFR 50.54m(2). Plant management and technical support personnel will be present or on call at all times.

See Figure 3-8 for the Operations Superintendent organization chart.

#### Shift Crew Composition:

The Shift Operations Supervisor on duty is in direct charge of and has direct responsibility for the plant, including the startup, operation, and shutdown of the reactor and turbine generators. The Assistant Shift Operations Supervisor is under the immediate supervision of the Shift Operations Supervisor. This position is responsible for the operation of one unit or for specific plant areas.

The Unit Operator is under the immediate supervision of the Assistant Shift Operations Supervisor responsible for that unit and the general supervision of the Shift Operations Supervisor. This position performs those functions which require the attention of a licensed individual. This position is responsible for the safe and efficient operation of one unit from the control room or from local control stations.

The Assistant Unit Operator is under the immediate supervision of the Unit Operator and the general supervision of the Assistant Shift Operations Supervisor. This position performs assigned routine inspections and manipulative operations. This position assists in the operation and performs work requirements within the defined area of the plant.

The Shift Technical Advisor reports to the Shift Operations Supervisor in the control room during normal and off-normal operating plant conditions. The Shift Technical Advisor serves in an advisory capacity to the Shift Operations Supervisor.

The relief of any shift position is made such that the minimum required shift crew compliment is always maintained. Such reliefs are formal and appropriate responsibilities are transferred at the time of relief.

A duty radiochemical analyst is under the functional supervision of the Shift Operations Supervisor. The analyst's duties consist of periodic sampling of reactor coolant, feedwater, main steam, condensate, and other plant process streams as required.

Duty health physics technicians are under the functional supervision of the Shift Operations Supervisor. They perform routine radiation surveys, personnel monitoring activities, and other assigned duties. These personnel keep the Shift Operations Supervisor informed of radiation hazards and perform special surveys as requested.

Schedule/Work Control

The Work Control Superintendent has the overall responsibility for ensuring that ongoing work activities during operating conditions and outages are planned for execution in a timely and efficient manner and in accordance with approved schedules and scopes of work. The Superintendent develops overall work schedules, defines outage scope and content, and reviews all work requests. The Superintendent plans all outages, establishes work priorities, and coordinates shift turnover.

Chemistry and Environmental

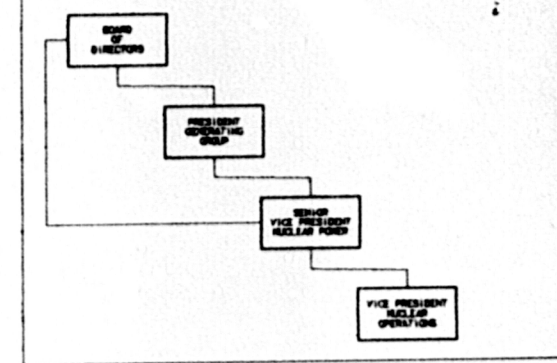
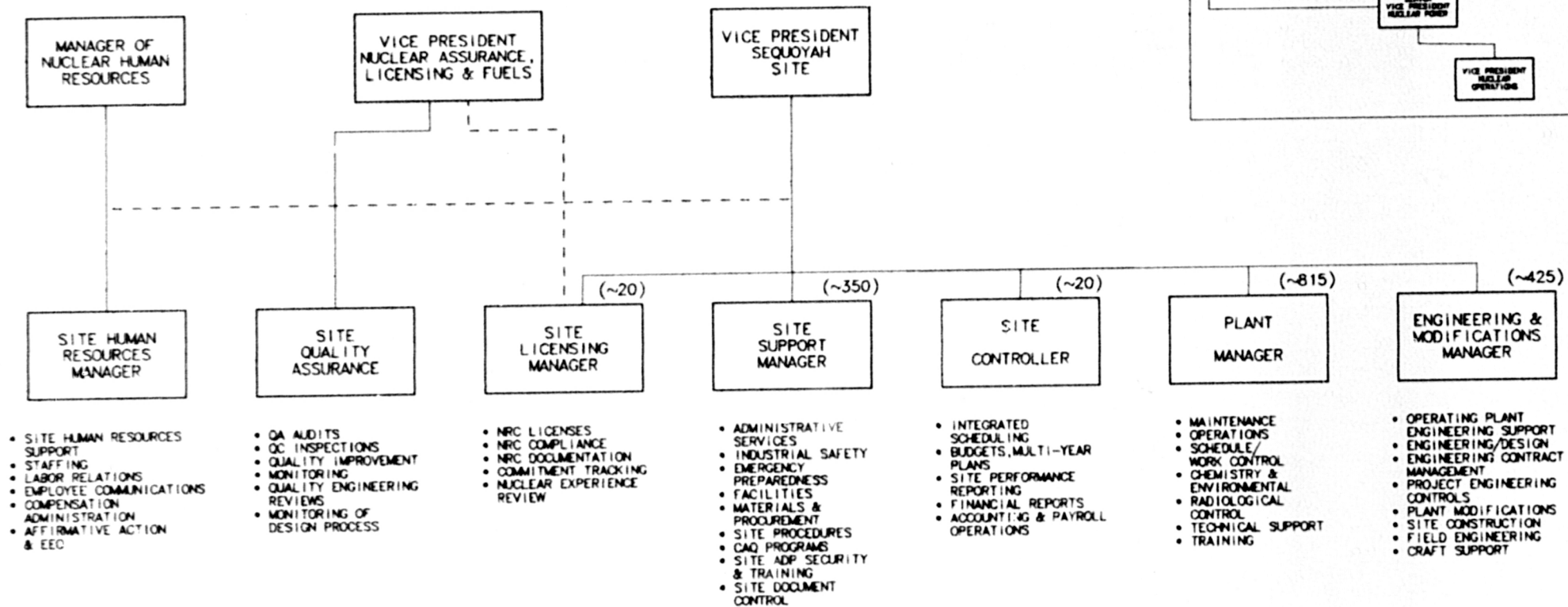
The Chemistry and Environmental Superintendent is responsible for implementation of effective site programs for plant chemistry, radiochemistry and environmental compliance.

d. Technical Support

The Technical Support Manager is responsible for technical direction and staff assistance in the area of systems engineering. Systems engineering includes nuclear, reactor, mechanical, chemical, electrical, and instrumentation and controls. Responsibilities include plant and equipment performance monitoring and tests, reactor engineering, integrated system operation and post modification and major maintenance testing.

Technical Support carries out a comprehensive program of plant tests, studies, and investigations for the purpose of monitoring the reactor, engineered safeguards, NSSS equipment, and balance-of-plant equipment directed at ensuring compliance with operating licenses, technical specifications, and improving plant and system efficiency.

# NUCLEAR POWER NUCLEAR OPERATIONS SEQUOYAH SITE

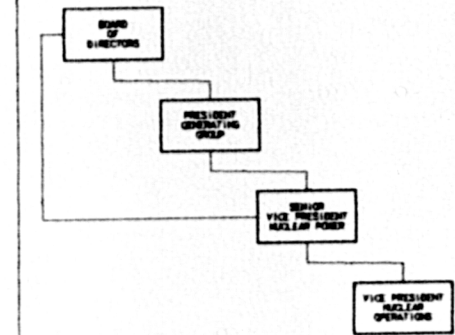
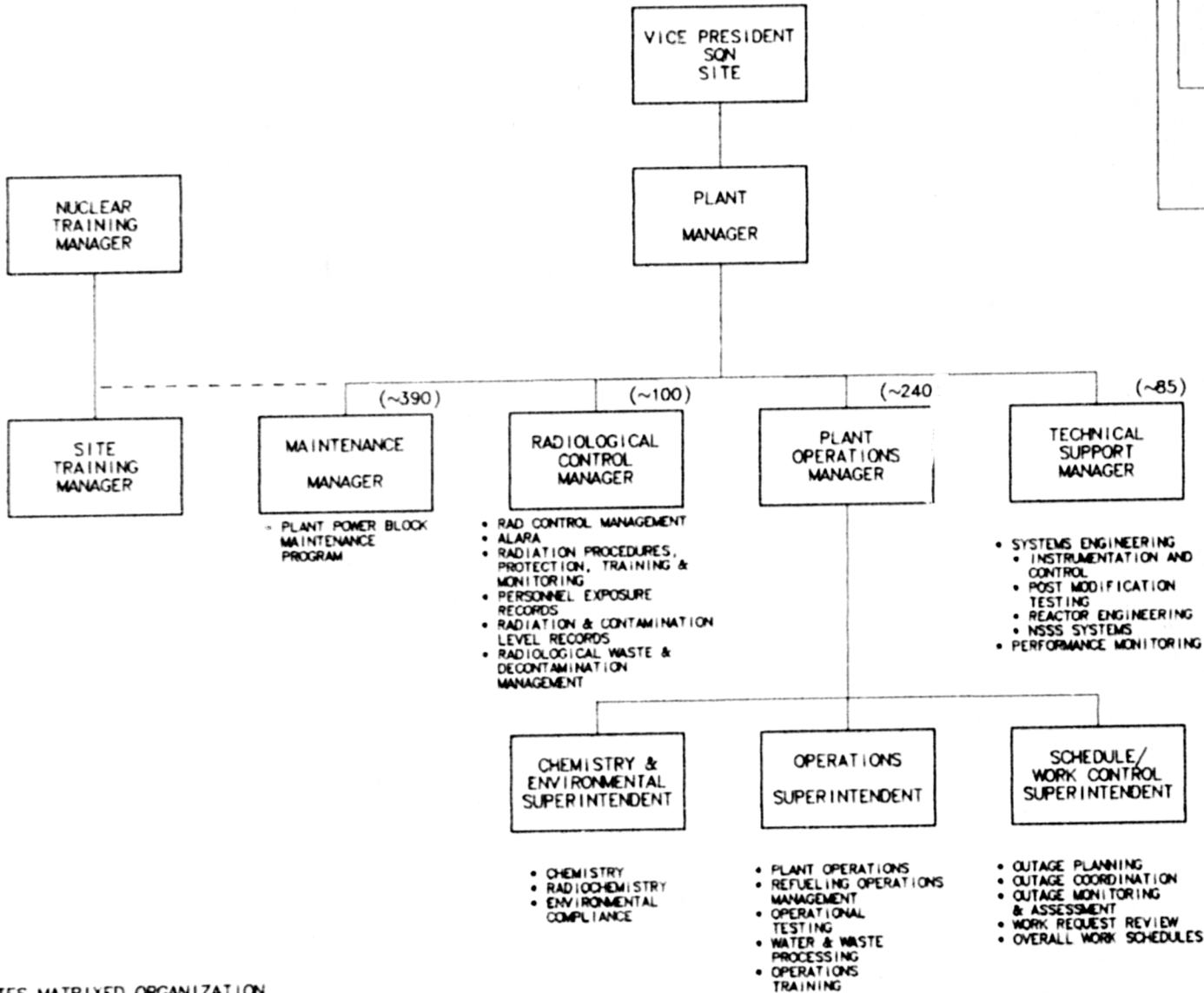


--- INDICATES MATRIXED ORGANIZATION AND SHOWS DAY-TO-DAY FUNCTIONAL SUPERVISION

FIGURE 3-6



NUCLEAR POWER  
 NUCLEAR OPERATIONS  
 SEQUOYAH SITE  
 PLANT MANAGER

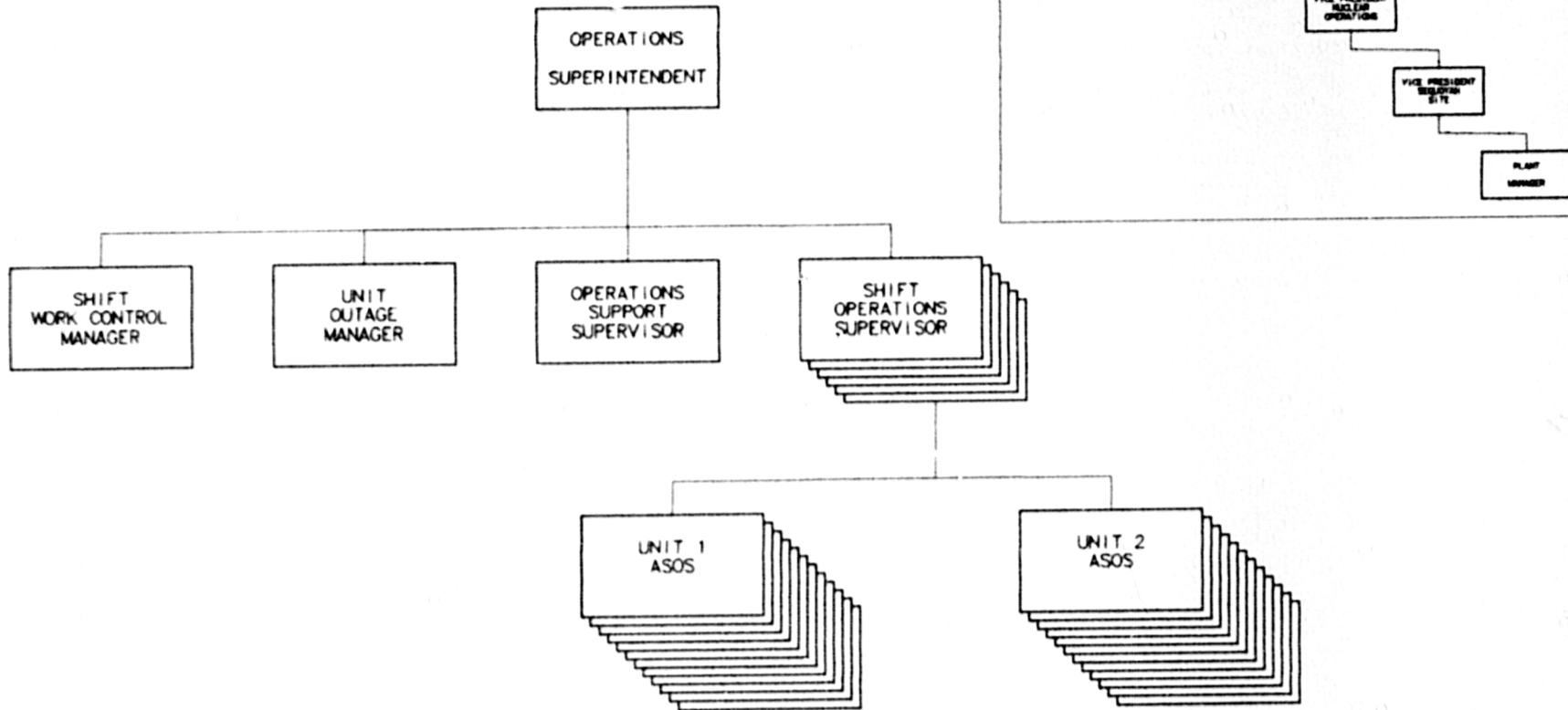


- - - INDICATES MATRIXED ORGANIZATION  
 AND SHOWS DAY-TO-DAY FUNCTIONAL  
 SUPERVISION

FIGURE 3-7



NUCLEAR POWER  
NUCLEAR OPERATIONS  
SEQUOYAH SITE  
PLANT MANAGER  
PLANT OPERATIONS  
OPERATIONS SUPERINTENDENT



#### 4.0 Vice President, New Generation and Bellefonte Construction (NG&BC)

The Vice President, NG&BC, is responsible for management and direction for planning of future nuclear plant generation and plant life extension of existing nuclear plants.

The Vice President, NG&BC, is also responsible for the construction, engineering and design, and startup testing required to support the completion and startup of BLN Units 1 and 2. This position is also responsible for supporting the technical activities required to license BLN and New Projects.

The Vice President, NG&BC, administers responsibilities through the following direct reports:

New Generation Planning Manager  
Vice President, BLN Site

See Figure 4-1 for the NG&BC organization chart.

#### 4.1 New Generation Planning Manager (NGPM)

The NGPM reports directly to the Vice President, NG&BC. The NGPM is responsible for developing TVA knowledge and expertise on second generation nuclear power plant technology and managing TVA strategies to provide new nuclear generation alternatives, including siting.

In addition to the above, the NGPM is responsible for initiating necessary support to achieve plant life extensions for existing nuclear power plants if it is determined that these plants can safely and economically continue to provide electrical power.

#### 4.2 Vice President, BLN Site (BLN)

The Vice President, BLN Site, reports directly to the Vice President, NG&BC. The Vice President, BLN Site, is responsible for managing all site activities associated with plant lay up and maintenance to ensure safe, reliable, efficient plant activities, and processes to maintain compliance with applicable regulatory requirements and good engineering practices.

The Vice President, BLN Site, is also responsible for the licensing, engineering, design, construction, and startup testing required to support the completion and startup of BLN Units 1 and 2.

The Vice President, BLN Site, has six principal reports and administers responsibilities through the following managers:

Site Services Manager  
Site Controller  
Site Licensing Manager  
Engineering Manager  
Project Completion Manager  
Plant Manager

See Figure 4-1 for the BLN Site organization chart.

#### 4.2.1 Site Services Manager

The Site Services Manager is responsible for managing and coordinating site services in support of plant layup and plant completion. These services include facility support, safety, training, materials and management, procedures, security, document control, etc.

#### 4.2.2 Site Controller

The Site Controller is responsible for providing financial and budget support to the site. The Site Controller coordinates and monitors the preparation of all budgets, capital or recovery project proposals, multiyear plans and special financial analyses; ensures compliance with TVA, NP and site financial management and accounting procedures and instructions; establishes systems for measuring, controlling, and reporting site financial performance; and provides cost analysis and estimating support.

#### 4.2.3 Engineering Manager

The Engineering Manager is responsible for assuring technical programs are in place for configuration control and that technical data bases are maintained and correct. He also assures that programs which transition from plant completion to support of operations, i.e., maintenance of fire protection, environmental qualification, etc., are in place and functioning. He additionally provides engineering for modification activities and for technical support of plant operations.

#### 4.2.4 Site Licensing Manager

The Site Licensing Manager is responsible for the following activities:

- a. Serving as the principal on site interface with the NRC, provides information and interpretations concerning regulatory requirements; directs the preparation for and conduct of NRC audits, inspections and meetings; ensures the interpretation or resolution of NRC requests or imposed regulatory changes; and ensures compliance with NRC reporting requirements;
- b. Establishing and maintaining a site licensing program for obtaining and maintaining required licenses and permits;
- c. Ensuring resolution of NRC issues by developing action plans and managing implementation of those plans;
- d. Providing management of the site operating experience reviews, generic issues, and the commitment tracking programs; and
- e. Coordination of site corrective action programs.

The Manager, Nuclear Licensing and Regulatory Affairs, provides oversight and technical direction to the Site Licensing Manager and is responsible for establishment and maintenance of related corporate standards and programs.

#### 4.2.5 Project Completion Manager

The Project Completion Manager is responsible for all site activities dealing with completion of the plant up through obtaining the operating license. These activities include project planning, engineering, construction, startup testing, and turnover to plant operations. This position will manage all completion contracts, including engineering and construction.

#### 4.2.6 Plant Manager

The Plant Manager is responsible for providing maintenance operations, radiological control, and technical support services associated with plant completion and startup activities.

# NUCLEAR POWER NEW GENERATION AND BLN CONSTRUCTION

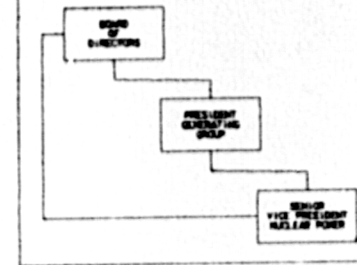
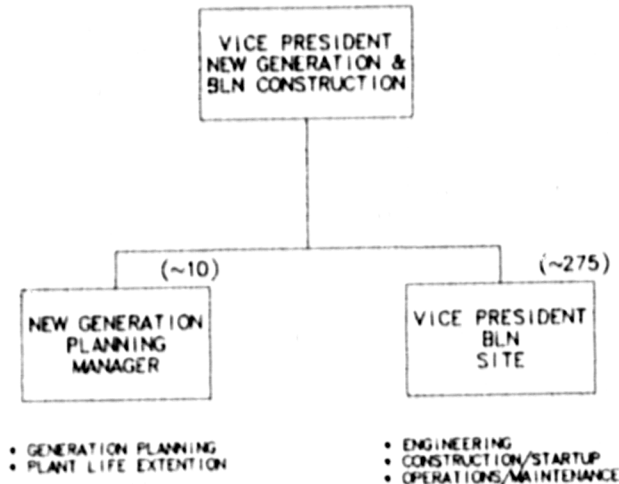
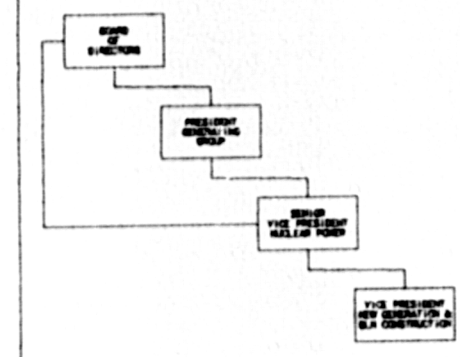
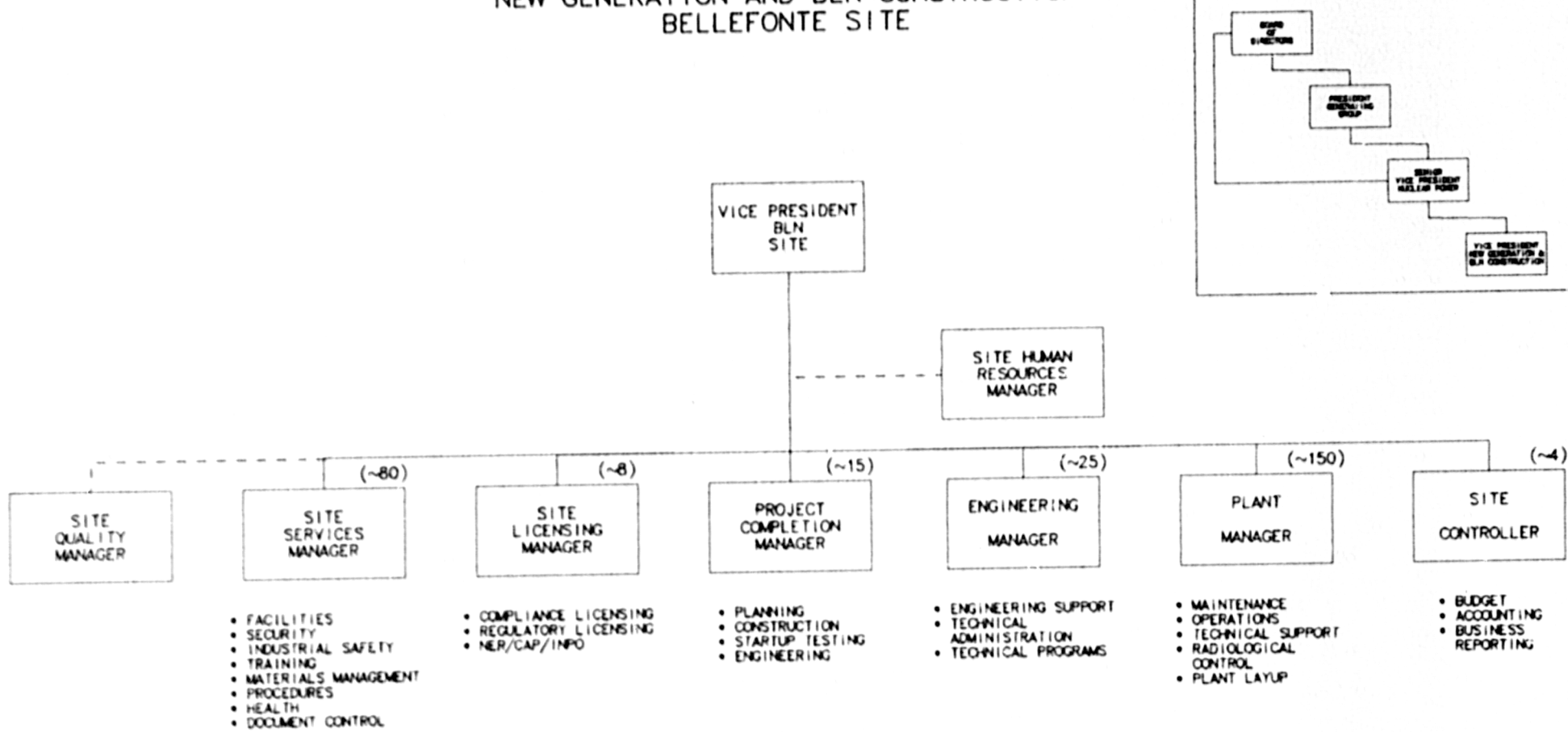


FIGURE 4-1

# NUCLEAR POWER NEW GENERATION AND BLN CONSTRUCTION BELLEFONTE SITE



- - - INDICATES MATRIXED ORGANIZATION AND SHOWS DAY-TO-DAY FUNCTIONAL SUPERVISION

FIGURE 4-2

## 5.0 Vice President, Nuclear Projects

The Vice President, Nuclear Projects, is responsible for Browns Ferry Units 1 and 3 recovery, Watts Bar Units 1 and 2 startup, overall corporate project management, corporate modifications, and corporate engineering. The key functions of the Vice President, Nuclear Projects, are to integrate and manage the development of assigned units through engineering, construction, and licensing in order to turn them over to the Nuclear Operations organization. The Vice President, Nuclear Projects, has five principal reports and administers responsibilities through the following:

Vice President, BFN Restart  
Vice President, WBN Site  
Manager, Corporate Projects  
Manager, Modifications Support  
Manager, Corporate Engineering

See Figure 5-1 for the Vice President, Nuclear Projects, organization chart.

### 5.1 Vice President, BFN Restart

The Vice President, BFN Restart, provides management of the recovery efforts for Browns Ferry Units 1 and 3.

The Vice President, BFN Restart, is responsible for all activities relating to the restart of the assigned units including construction, engineering, start-up testing. This includes directing the development of management systems to control nuclear power plant construction and modification, plant preservation, pre-fuel load, and pre-operational activities.

The Vice President, BFN Restart, has four direct reports and administers responsibilities through them. The direct reports are as follows:

Nuclear Engineering Manager  
Restart Programs Manager  
Field Services Manager  
Quality Initiative Process/Procedures Manager

The Vice President, BFN Restart, has functional supervision over the Licensing Restart Manager, Restart Quality Manager, and Unit 3 Restart Operations Manager. These are matrixed positions that have direct reports to the Vice President, BFN Operations organization.

See Figure 5-3 for the Vice President, BFN Restart organization chart.

5.1.1 Nuclear Engineering

The BFN Restart Nuclear Engineering Manager manages the engineering team to meet scope, schedule, and budgeting requirements as set by the Vice President, BFN Restart. The Nuclear Engineering Manager is responsible for design engineering, overall design integration and coordination, calculations, and baseline verification.

5.1.2 Restart Programs

The BFN Restart, Restart Program Manager, is responsible for integrated programs, nonintegrated programs, and project control activities in support of unit restart.

5.1.3 Field Services

The BFN Restart, Field Services Manager, is responsible for construction, modifications, materials, and procurement activities in support of unit restart.

5.1.4 Quality Initiatives Process/Procedures Manager

The Quality Initiatives Process/Procedures Manager is responsible for development and implementation of procedures, conduct surveillance of Processes, identify trends, and develop methods to measure and improve quality and productivity. Additionally, this manager directs the work authorization board for design changes.



# NUCLEAR POWER NUCLEAR PROJECTS

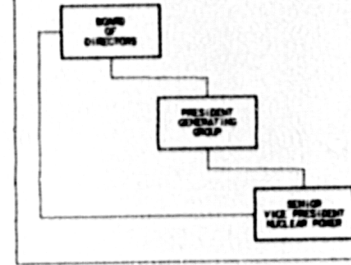
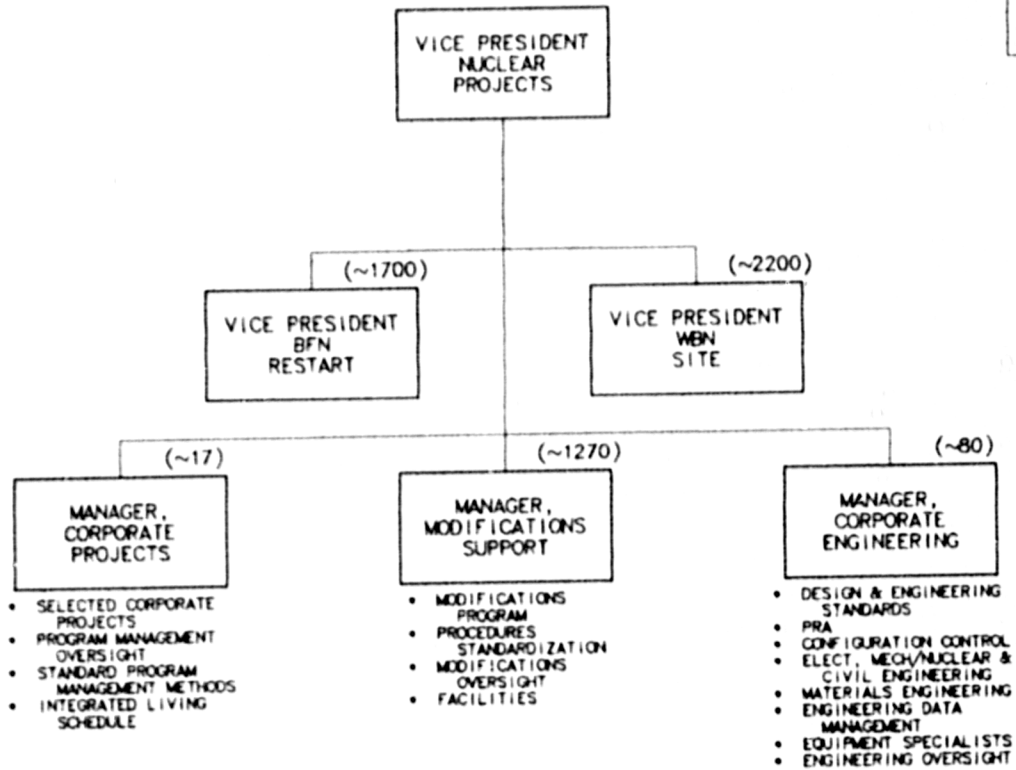
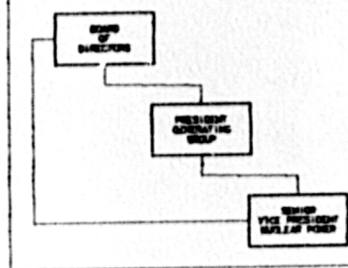
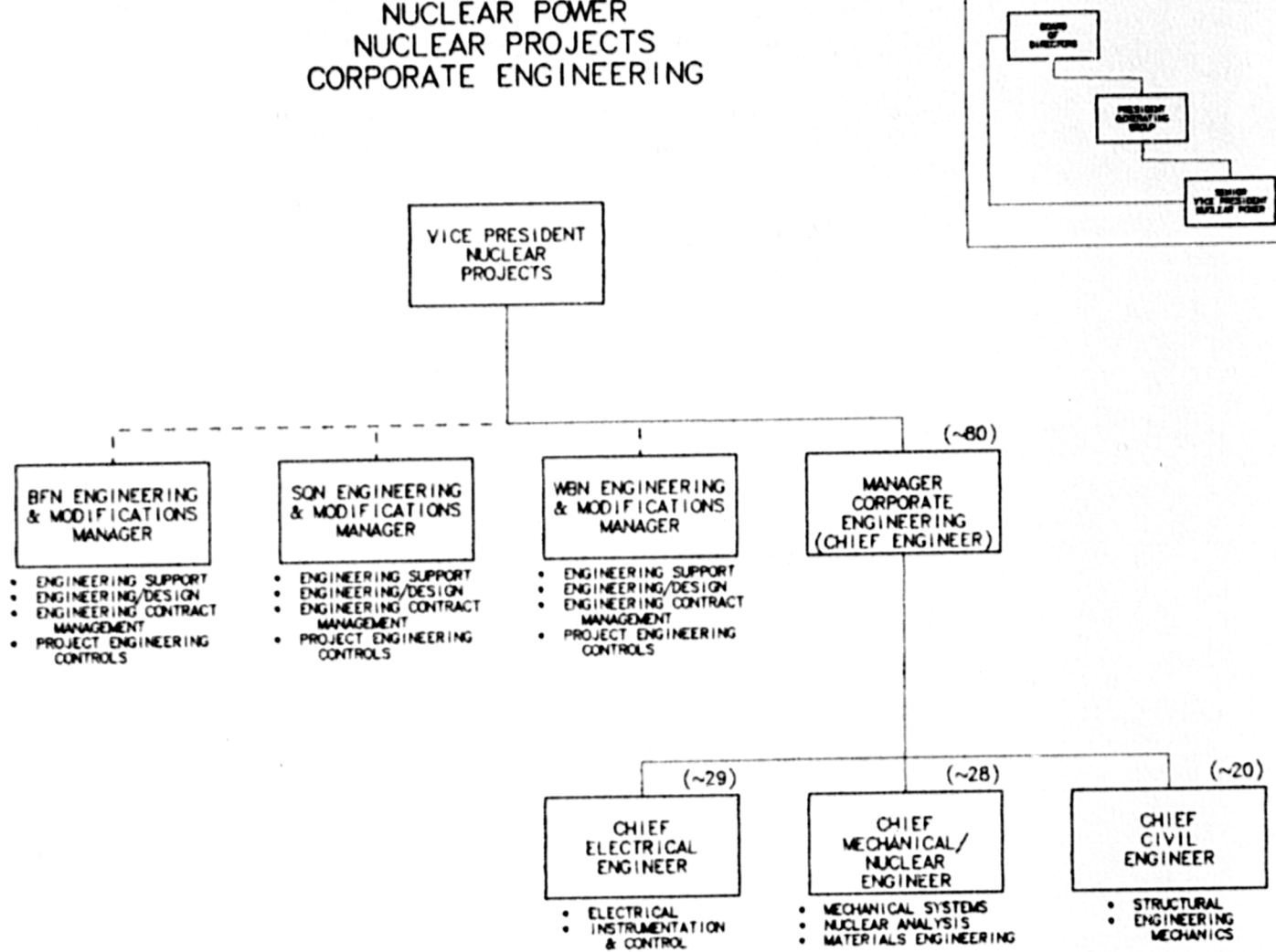


FIGURE 5-1

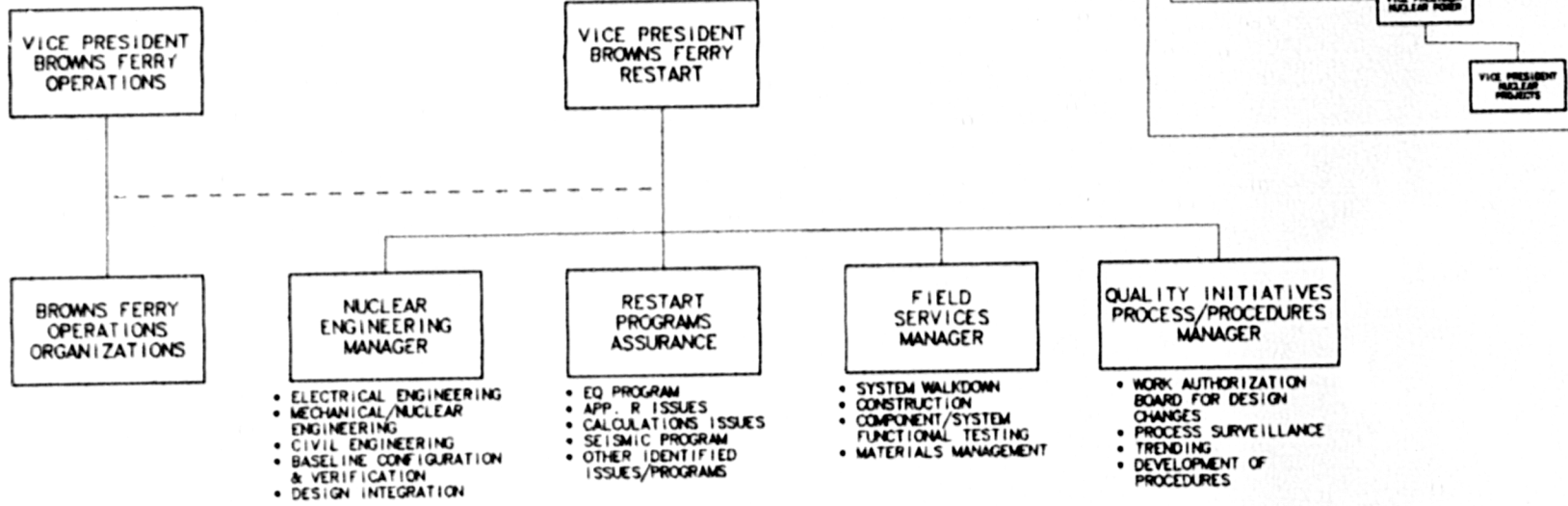
# NUCLEAR POWER NUCLEAR PROJECTS CORPORATE ENGINEERING



NOTE: EACH SITE ENGINEERING AND MODIFICATIONS MANAGER REPORTS TO A DESIGNATED SITE VICE PRESIDENT  
 - - - INDICATES MATRIXED ORGANIZATION AND SHOWS DAY-TO-DAY FUNCTIONAL SUPERVISION

FIGURE 5-2

NUCLEAR POWER  
 NUCLEAR PROJECTS  
 BROWNS FERRY RESTART  
 (UNITS 1 AND 3)



- - - INDICATES MATRIXED ORGANIZATION AND SHOWS DAY-TO-DAY FUNCTIONAL SUPERVISION

FIGURE 5-3

## 5.2 Vice President, WBN Site

The Vice President, WBN Site, reports directly to the Vice President, Nuclear Projects. The Vice President, WBN Site, is responsible for WBN startup, construction, and general site management.

The Vice President, WBN Site, has five principal reports and administers responsibilities through them. The principal reports are as follows:

Engineering and Modifications Manager  
Site Controller  
Site Support Manager  
Site Licensing Manager  
Plant Manager

The Site Quality Manager and Site Human Resources Manager also report functionally to the Vice President.

See Figure 5-4 for the Vice President, WBN, Site organization chart.

### 5.2.1 Engineering and Modifications Manager

The Engineering and Modifications Manager provides overall management and direction using project management concepts to supervise the assigned engineering and modifications organizations. This responsibility includes providing administrative and functional direction on scope, schedule, budget, and provide the manpower to perform assigned tasks. Corporate Engineering is responsible for engineering technical direction, establishment and maintenance of engineering standards and processes, and monitoring oversight of engineering activities of the sites.

### 5.2.2 Site Controller

The Site Controller is responsible for providing financial and budget support to the site. The Site Controller coordinates and monitors the preparation of all budgets, capital or recovery project proposals, multiyear plans and special financial analyses; ensures compliance with TVA, NP and site financial management and accounting procedures and instructions; establishes systems for measuring, controlling, and reporting site financial performance; and provides cost analysis and estimating support.

### 5.2.3 Site Support Manager

The Site Support Manager provides general management and oversight of a variety of staff and support functions, including:

- a. Administrative services, procedure coordination, and document control;
- b. Site industrial safety support;
- c. Onsite radiological emergency preparedness program;
- d. Site security; and
- e. Onsite management interfaces and coordination of site ADP, security, and training activities.

### 5.2.4 Site Licensing Manager

The Site Licensing Manager is responsible for the following activities:

- a. Serving as the principal on site interface with the NRC, provides information and interpretations concerning regulatory requirements; directs the preparation for and conduct of NRC audits, inspections and meetings; ensures the interpretation or resolution of NRC requests or imposed regulatory changes; and ensures compliance with NRC reporting requirements;
- b. Establishing and maintaining a site licensing program for obtaining and maintaining required licenses and permits;
- c. Ensuring resolution of NRC issues by developing action plans and managing implementation of those plans;
- d. Providing management of the site operating experience reviews, generic issues, and the commitment tracking programs; and
- e. Coordination of site corrective action programs.

The Manager, Nuclear Licensing and Regulatory Affairs, provides oversight and technical direction to the Site Licensing Manager and is responsible for establishment and maintenance of related corporate standards and programs.

#### 5.2.5 Plant Manager

The primary responsibility and authority for ensuring safe, reliable, and efficient plant operations in conformance and compliance with all Federal, State, and local laws and regulations are vested in the Plant Manager. The Plant Manager is responsible for ensuring that hardware and software modifications or revisions made subsequent to the original design or construction of the plant are authorized and carried out in accordance with procedures and instructions. This position is responsible for ensuring that established acceptance criteria are satisfied before plant systems or components are accepted for operation. The Plant Manager is responsible for ensuring that adequate and complete records and reports are developed and maintained, staffing the plant, ensuring training of plant personnel, and establishing systems, procedures, and methods required to startup and operate the plant.

Since WBN Site is in construction status, the detailed description of the operating organization is not provided in this section. See Section 5.6 for the planned operating organization description.

See Figure 5-5 for the Plant Managers organization chart.

##### a. Maintenance

The Maintenance Manager is responsible for the planning and management of the site maintenance program for the main power block to ensure safe, reliable, and efficient maintenance of plant equipment.

##### b. Technical Support

The Technical Support Manager is responsible for technical direction and staff assistance in the area of systems engineering. Systems engineering includes nuclear, mechanical, chemical, electrical, and instrument and controls. Responsibilities include plant and equipment performance monitoring and tests, reactor engineering, integrated system operation and post-modification and major maintenance testing.

Technical Support carries out a comprehensive program of plant tests, studies, and investigations for the purpose of monitoring the reactor, engineered safeguards, NSSS equipment, and balance-of-plant equipment. This ensures compliance with the operating licenses and technical specifications and improves the efficiency of the plant.

c. Plant Operations Manager

The Plant Operations Manager is responsible for all plant operations. The Manager manages fuel loading, operational testing, water and waste processing, and plant operations. The Manager is responsible for coordinating and scheduling the training program for all operations personnel as well as providing the nucleus for emergency response teams.

The Shift Operations Supervisor on duty is in direct charge of and has direct responsibility for the plant. The Assistant Shift Operations Supervisor is under the immediate supervision of the Shift Operations Supervisor. This position is responsible for the operation of one unit or for specific plant areas.

The Unit Operator is under the immediate supervision of the Assistant Shift Operations Supervisor responsible for that unit and the general supervision of the Shift Operations Supervisor. This position performs those functions which require the attention of a licensed individual.

The Assistant Unit Operator is under the immediate supervision of the Unit Operator and the general supervision of the Assistant Shift Operations Supervisor. This position performs assigned routine inspections and manipulative operations.

The Shift Technical Advisor reports to the Shift Operations Supervisor in the control room during normal and off-normal operating plant conditions. The Shift Technical Advisor serves in an advisory capacity to the Shift Operations Supervisor.

A duty radiochemical analyst is under the functional supervision of the Shift Operations Supervisor. The analyst's duties consist of periodic sampling of reactor coolant, feedwater, main steam, condensate, and other plant process streams as required.

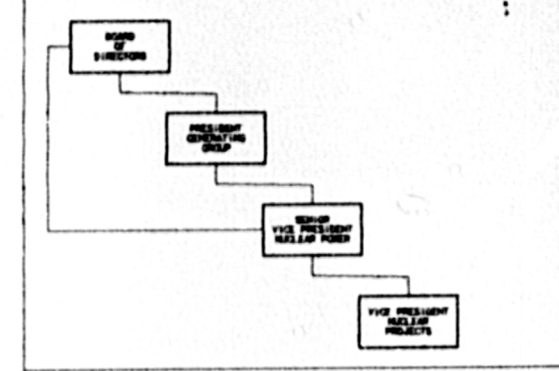
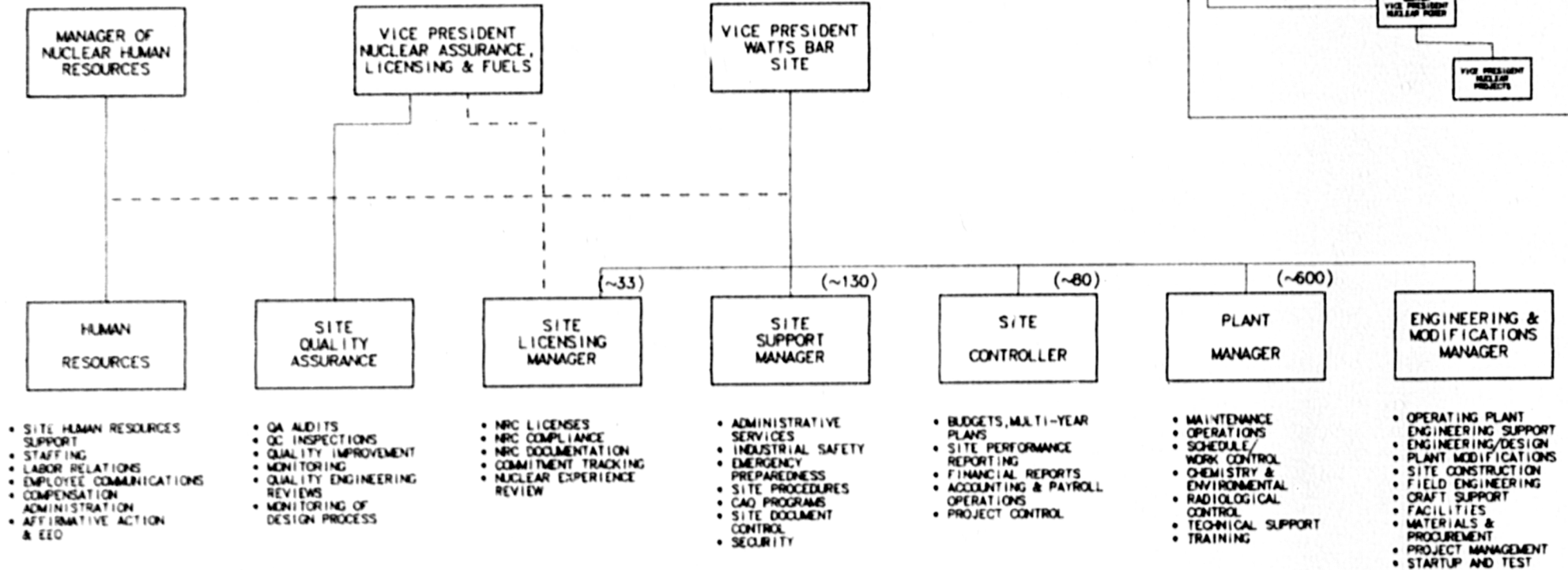
Duty health physics technicians are under the functional supervision of the Shift Operations Supervisor. They perform routine radiation surveys, personnel monitoring activities, and other assigned duties. These personnel keep the Shift Operations Supervisor informed of radiation hazards and perform special surveys as requested.

d. Radiological Control

The Radiological Control Manager is responsible for radiological control activities at the plant. This includes developing, implementing, and managing the site radiological program with emphasis on achieving as low as reasonably achievable (ALARA) goals. This Manager develops and applies radiation standards and manager; reviews and recommends radiation protection requirements and management controls; and assists in the plant training program, providing specialized training in radiation protection. The Radiological Control Manager is responsible for conducting a comprehensive onsite radiological monitoring before, during, and after plant startup and providing radiological control coverage for all operations including maintenance, fuel handling, decontamination, and radiological waste disposal. The manager is responsible for personnel and plant radiation monitoring and maintains continuing records of personnel exposures, plant radiation, and contamination levels.



# NUCLEAR POWER NUCLEAR PROJECTS WATTS BAR SITE



- - - INDICATES MATRIXED ORGANIZATION AND SHOWS DAY-TO-DAY FUNCTIONAL SUPERVISION

FIGURE 5-4

NUCLEAR POWER  
NUCLEAR PROJECTS  
WATTS BAR PLANT MANAGER

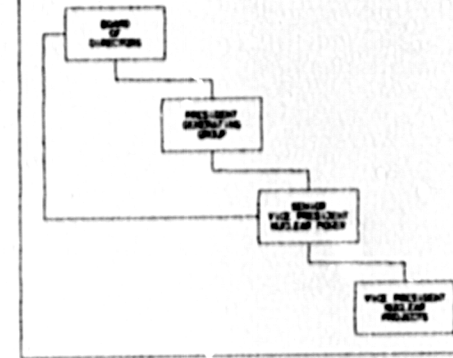
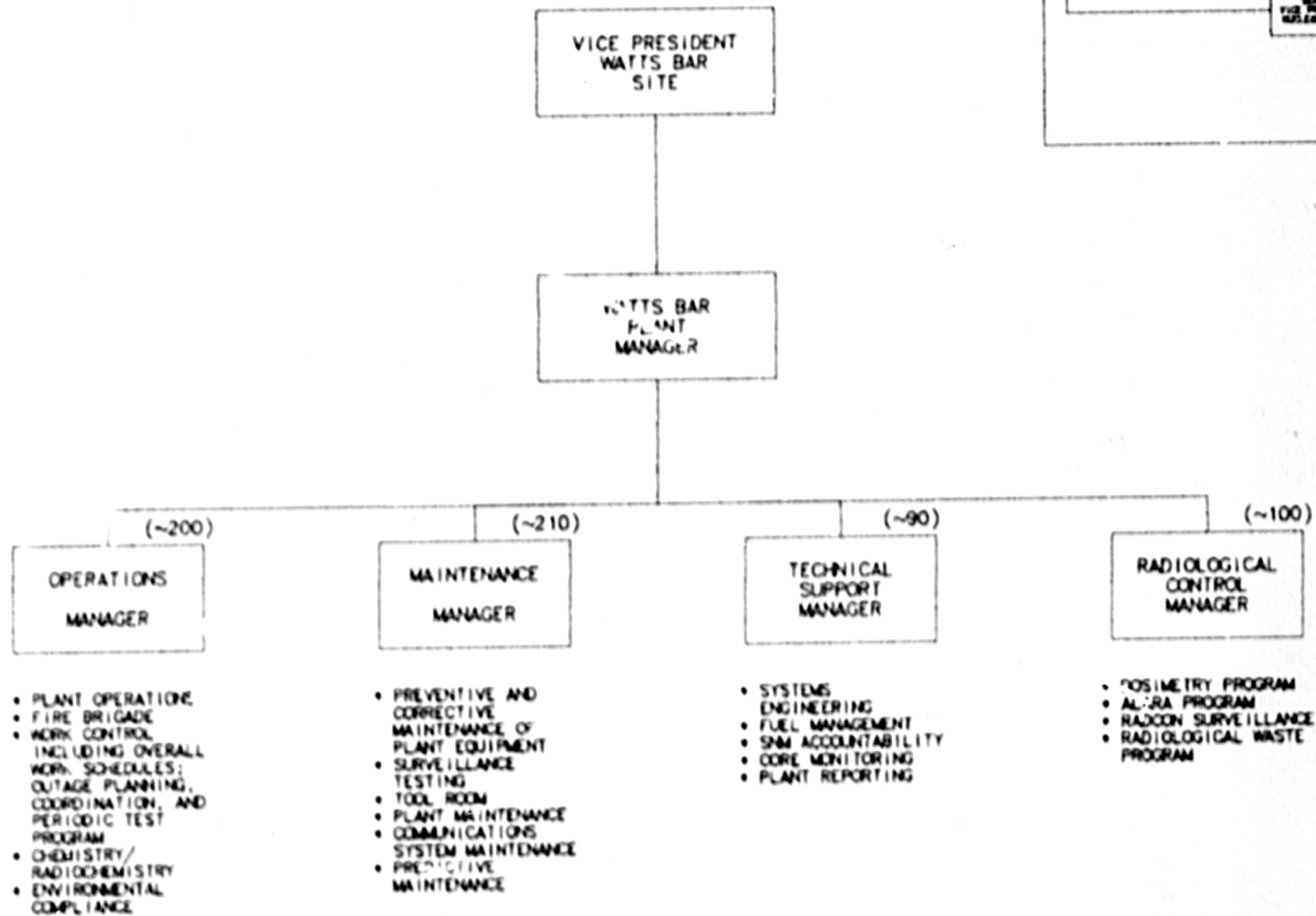


FIGURE 5-5

### 5.3 Manager, Corporate Projects

The Manager, Corporate Projects, reports to the Vice President, Nuclear Projects, and is responsible for the following activities:

- A. Providing direction, oversight, and support for overall project management activities assigned by the Vice President, Nuclear Projects, and the Senior Vice President, NP;
- B. Establishing appropriate site interfaces to ensure detailed project plans, defined work scopes, identified deliverables, and developed schedules and cost estimates are complete prior to site implementation;
- C. Developing an overall integrated living schedule for NP and establishing the methodology for site development of site-wide integrated schedules;
- D. Managing selected assigned major projects from initiation to post implementation acceptance;
- E. Developing project management policy and procedures to ensure consistent methodology throughout NP. All project managers receive guidance from the Manager, Corporate Projects, in project management methodology; and
- F. Coordinating and providing support to the Project Approval Board and the Site Change Control Boards.

### 5.4 Manager, Modifications Support

The Manager, Modifications Support, is responsible for providing consistent operating guidelines and standards for the NP organization, including:

- A. Development of consistently applied nuclear standards, procedures, and guidelines for modifications; and
- B. Provides specialized assistance to the plants in improvement programs, welding, and field engineering support.

### 5.5 Manager, Corporate Engineering

The Manager, Corporate Engineering, is responsible for the following primary functions:

- A. Establishing and maintaining design and engineering standards;
- B. Oversight and monitoring of design and engineering functions at TVA nuclear plants;
- C. Providing technical expertise to the TVA nuclear plant design and engineering organizations;
- D. Establishing and maintaining probabilistic risk assessment (PRA) methods and expertise;
- E. Establishment of design and configuration controls; and
- F. Maintaining the integrity and technical adequacy of engineering and design of Nuclear Power facilities throughout their operating life.

The Manager, Corporate Engineering, is the "Chief Engineer" and is responsible for the overall management of the Civil, Electrical/Instrumentation and Controls, and Mechanical/Nuclear discipline functions.

See Figure 5-2 for the Corporate Engineering organization and matrix functions.

5.6 Vice President, WBN Site (WBN)\* (Planned WBN Operating Organization)

The Vice President, WBN is responsible and accountable for activities at the site, including operations, modifications, support, licensing, quality assurance, and engineering services. The Vice President, WBN manages activities associated with the WBN plant and determines the nature and extent of onsite and offsite support services required to support site operations in accordance with NP policy and procedures. The Vice President, WBN is responsible for the quality of work activities.

The Vice President, WBN has five principal reports and administers responsibilities through the following managers:

Site Support Manager  
Site Controller  
Engineering and Modifications Manager  
Site Licensing Manager  
Plant Manager

Two other managers report only functionally to the Vice President, WBN. They are the Site Quality Manager and Site Human Resource Manager.

See Figure 5-6 for the WBN organization chart.

5.6.1 Site Support

The Site Programs and Support Manager provides general management and oversight of a variety of staff and support functions, including:

- a. Administrative services, procedure coordination, and document control;
- b. Site industrial safety support;
- c. Onsite radiological emergency preparedness program;
- d. Site facilities management;
- e. Site security; and
- f. Onsite management interface and coordination of site ADP.

\* TVA NP will have consistent plant organizations for the operating unit. The remainder of the site organization will be structured to support startup of the remaining unit.

#### 5.6.2 Site Controller

The Site Controller is responsible for providing financial and budget support to the site. The Site Controller coordinates and monitors the preparation of all budgets, capital or recovery project proposals, multiyear plans and special financial analyses; ensures compliance with TVA, NP and site financial management and accounting procedures and instructions; establishes systems for measuring, controlling, and reporting site financial performance; and provides cost analysis and estimating support.

#### 5.6.3 Engineering and Modifications

The Engineering and Modifications Manager provides overall management and direction using project management concepts to supervise the assigned engineering and modifications organizations. This responsibility includes providing administrative and functional direction on scope, schedule, budget, and provide the manpower to perform assigned tasks. Corporate Engineering is responsible for engineering technical direction, establishment and maintenance of engineering standards and processes, and monitoring oversight of engineering activities of the sites.

#### 5.6.4 Site Licensing Manager

The Site Licensing Manager is responsible for the following activities:

- a. Serving as the principal on site interface with the NRC, provides information and interpretations concerning regulatory requirements; directs the preparation for and conduct of NRC audits, inspections and meetings; ensures the interpretation or resolution of NRC requests or imposed regulatory changes; and ensures compliance with NRC reporting requirements;
- b. Establishing and maintaining a site licensing program for obtaining and maintaining required licenses and permits;
- c. Ensuring resolution of NRC issues by developing action plans and managing implementation of those plans;
- d. Providing management of the site operating experience reviews, generic issues, and the commitment tracking programs; and
- e. Coordination of site corrective action programs.

The Manager, Nuclear Licensing and Regulatory Affairs, provides oversight and technical direction to the Site Licensing Manager and is responsible for establishment and maintenance of related corporate standards and programs.

### 5.6.5 Plant Manager

The primary responsibility and authority for ensuring safe, reliable, and efficient plant operations in conformance and compliance with all Federal, State, and local laws and regulations are vested in the Plant Manager. The Plant Manager is responsible for ensuring that hardware and software modifications or revisions made subsequent to the original design or construction of the project are authorized and carried out in accordance with procedures and instructions. This position is responsible for ensuring that established acceptance criteria are satisfied before plant systems or components are returned to normal operation. The Plant Manager is responsible for ensuring that adequate and complete records and reports are developed and maintained and that plant personnel are appropriately trained and qualified for their jobs.

The Plant Manager has four principal reports and administers responsibilities through the following managers:

Maintenance Manager  
Radiological Control Manager  
Plant Operations Manager  
Technical Support Manager

See Figure 5-7 for the Plant Manager's organization chart.

#### a. Maintenance

The Maintenance Manager is responsible for planning, directing, and managing the plant main power block maintenance program to ensure that equipment and systems are maintained in accordance with operability and reliability engineering practices and requirements. This position manages the development, implementation, and maintenance of the site measuring and test equipment tool rooms.

TVA's Power Transmission and Customer Service organization is responsible for the maintenance and testing of the relaying associated with the transmission system, switchyard maintenance, generator protection, and the auxiliary power system. This organization is also responsible for the maintenance and testing of all in-plant radios, T1 spans (digital method of voice or data transmissions), and all external plant communications systems (with the exception of the Bell system and AT&T equipment).

This organization is under the administrative supervision of the Power Transmission and Customer Service-Muscle Shoals Area Manager and under the functional supervision of the plant Electrical Maintenance Manager.

b. Radiological Control

The Radiological Control Manager is responsible for radiological control activities at the plant. This includes developing, implementing, and managing the site radiological program with emphasis on meeting as low as reasonably achievable (ALARA) radiation exposure goals. This Manager develops and applies radiation standards and procedures; reviews and recommends radiation protection requirements and management controls; and assists in the plant training program, providing specialized training in radiation protection. The Radiological Control Manager is responsible for conducting a comprehensive onsite radiological monitoring before, during, and after plant startup and providing radiological control coverage for all operations including maintenance, fuel handling, decontamination, and radiological waste disposal. The manager is responsible for personnel and plant radiation monitoring and maintains continuing records of personnel exposures, plant radiation, and contamination levels.

c. Plant Operations Manager

The Plant Operations Manager has overall responsibility for plant operation and overall execution of plant operational activities.

The Plant Operations Manager has three principal reports:

Operations Superintendent  
Schedule/Work Control Superintendent  
Chemistry and Environmental Superintendent

Operations

The Operations Superintendent is responsible for all plant operations. The Superintendent manages refueling operations, startup, operational testing, water and waste processing, and plant operations. The Superintendent is responsible for coordinating and scheduling the training program for all operations personnel as well as providing the nucleus for emergency response teams.

Within Operations are six shift crews. The minimum shift crew for one unit will consist of the Shift Operations Supervisor (SRO), two Unit Operators (RO), and two Assistant Unit Operators (AUOs). One assistant SRO, one additional RO, and one AUO, will be required for 2-unit operation. Additional operators are assigned as required by the Technical Specifications to meet the requirements of 10 CFR 50.54m(2). Plant management and technical support personnel will be present or on call at all times.

See Figure 5-8 for the Operations Superintendent organization chart.



#### Shift Crew Composition:

The Shift Operations Supervisor on duty is in direct charge of and has direct responsibility for the plant, including the startup, operation, and shutdown of the reactor and turbine generators. The Assistant Shift Operations Supervisor is under the immediate supervision of the Shift Operations Supervisor. This position is responsible for the operation of one unit or for specific plant areas.

The Unit Operator is under the immediate supervision of the Assistant Shift Operations Supervisor responsible for that unit and the general supervision of the Shift Operations Supervisor. This position performs those functions which require the attention of a licensed individual. This position is responsible for the safe and efficient operation of one unit from the control room or from local control stations.

The Assistant Unit Operator is under the immediate supervision of the Unit Operator and the general supervision of the Assistant Shift Operations Supervisor. This position performs assigned routine inspections and manipulative operations. This position assists in the operation and performs work requirements within the defined area of the plant.

The Shift Technical Advisor reports to the Shift Operations Supervisor in the control room during normal and off-normal operating plant conditions. The Shift Technical Advisor serves in an advisory capacity to the Shift Operations Supervisor.

The relief of any shift position is made such that the minimum required shift crew compliment is always maintained. Such reliefs are formal and appropriate responsibilities are transferred at the time of relief.

A duty radiochemical analyst is under the functional supervision of the Shift Operations Supervisor. The analyst's duties consist of periodic sampling of reactor coolant, feedwater, main steam, condensate, and other plant process streams as required.

Duty health physics technicians are under the functional supervision of the Shift Operations Supervisor. They perform routine radiation surveys, personnel monitoring activities, and other assigned duties. These personnel keep the Shift Operations Supervisor informed of radiation hazards and perform special surveys as requested.

#### Schedule/Work Control

The Work Control Superintendent has the overall responsibility for ensuring that ongoing work activities during operating conditions and outages are planned for execution in a timely and efficient manner and in accordance with approved schedules and scopes of work. The Superintendent develops overall work schedules, defines outage scope and content, and reviews all work requests. The Superintendent plans all outages, establishes work priorities, and coordinates shift turnover.

#### Chemistry and Environmental

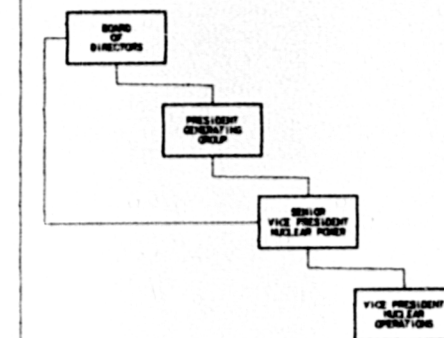
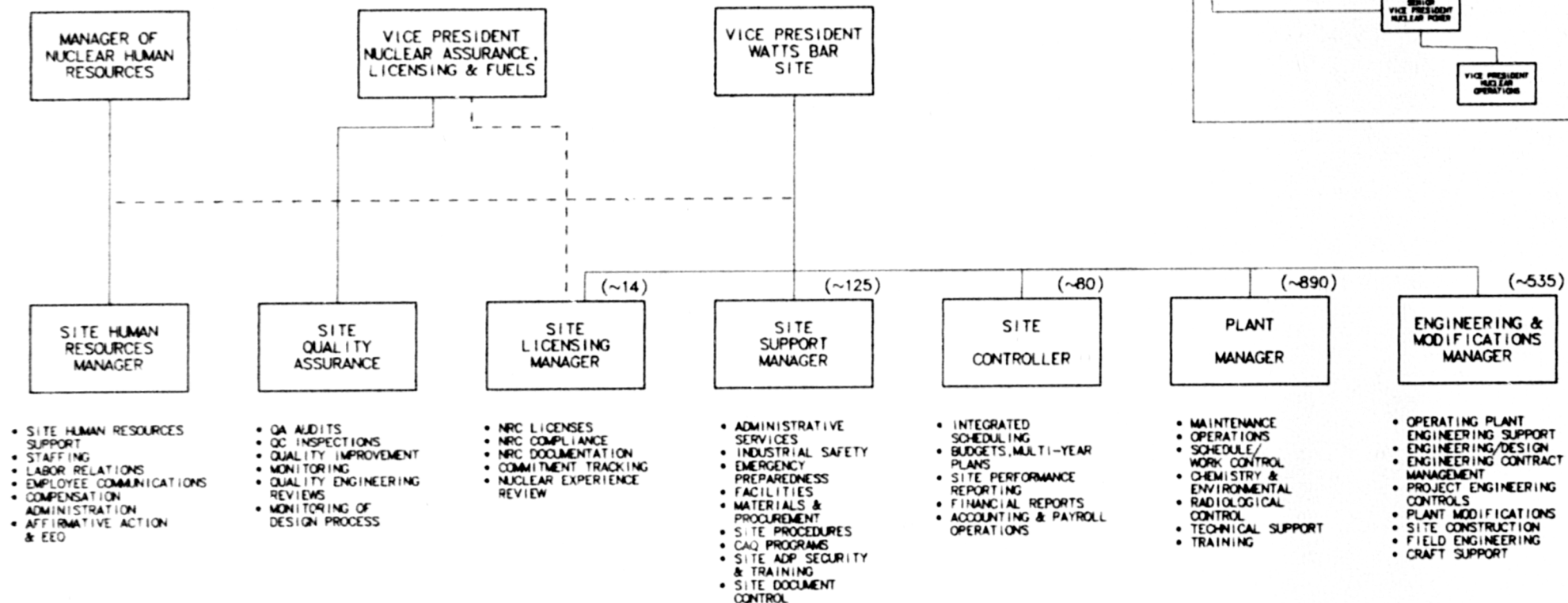
The Chemistry and Environmental Superintendent is responsible for implementation of effective site programs for plant chemistry, radiochemistry and environmental compliance.

#### d. Technical Support

The Technical Support Manager is responsible for technical direction and staff assistance in the area of systems engineering. Systems engineering includes nuclear, reactor, mechanical, chemical, electrical, and instrumentation and controls. Responsibilities include plant and equipment performance monitoring and tests, reactor engineering, integrated system operation and post modification and major maintenance testing.

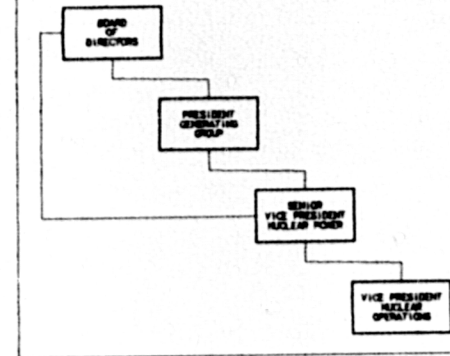
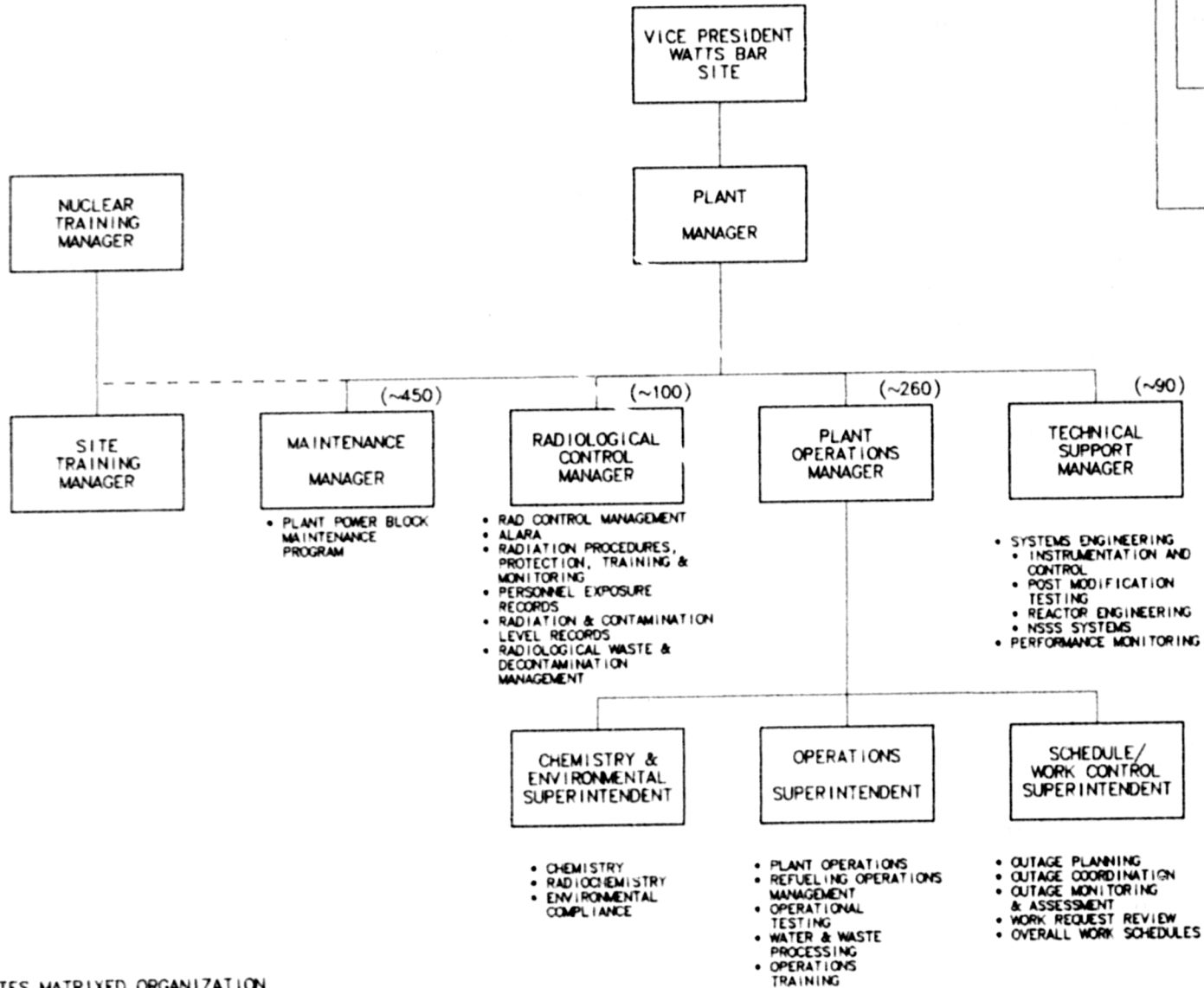
Technical Support carries out a comprehensive program of plant tests, studies, and investigations for the purpose of monitoring the reactor, engineered safeguards, NSSS equipment, and balance-of-plant equipment directed at ensuring compliance with operating licenses, technical specifications, and improving plant and system efficiency.

# NUCLEAR POWER NUCLEAR OPERATIONS WATTS BAR SITE (PLANNED OPERATING ORGANIZATION)



- - - INDICATES MATRIXED ORGANIZATION AND SHOWS DAY-TO-DAY FUNCTIONAL SUPERVISION

NUCLEAR POWER  
 NUCLEAR OPERATIONS  
 WATTS BAR SITE  
 PLANT MANAGER  
 (PLANNED OPERATING ORGANIZATION)



- - - INDICATES MATRIXED ORGANIZATION AND SHOWS DAY-TO-DAY FUNCTIONAL SUPERVISION

FIGURE 5-7

NUCLEAR POWER  
 NUCLEAR OPERATIONS  
 WATTS BAR SITE  
 PLANT MANAGER  
 PLANT OPERATIONS  
 OPERATIONS SUPERINTENDENT  
 (PLANNED OPERATING ORGANIZATION)

