TVA NUCLEAR

ORGANIZATION DESCRIPTION

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ABSTRACT

The TVA Nuclear (TVAN) Organization Description (TVA-NPOD89-A) includes 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).

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 detailed 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 TVAN Organization Description (TVA-NP0D89-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-NP0D89-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 organization. This topical report will be revised as necessary to reflect major organizational changes and at a frequency not to exceed 24 months under the provisions of 10 CFR 70.71(e).

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. The Corporate organization is shown in figure 1-1.

1.1 TVA Nuclear (TVAN)

TVA's Nuclear organization is responsible for nuclear plant engineering and design, construction, operation, quality assurance, and compliance with regulatory requirements. TVAN 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 TVAN is shown in Figure 1-2.

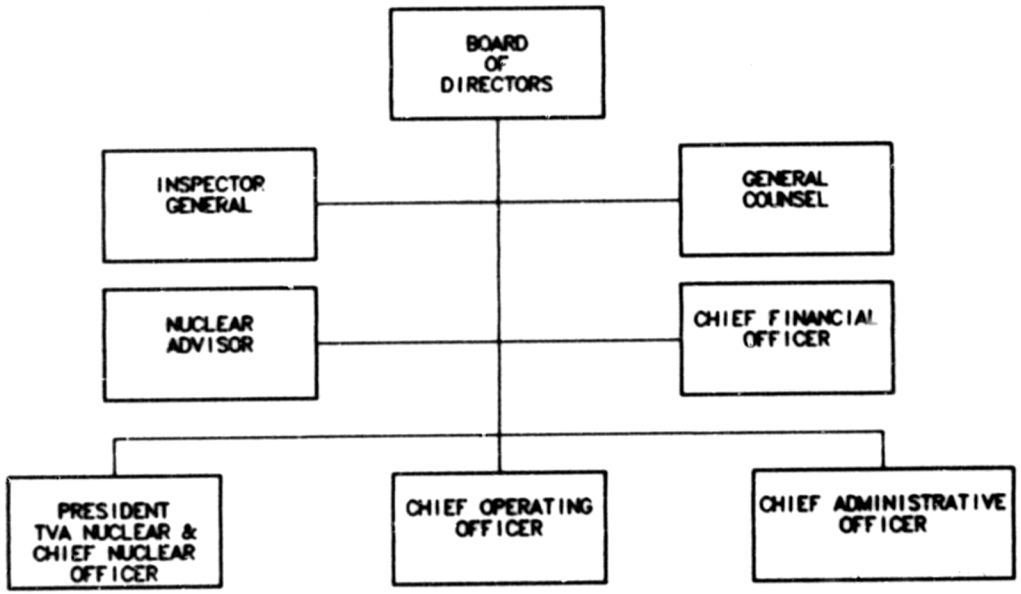
1.2 President, TVA Nuclear and Chief Nuclear Officer

The President, TVA Nuclear and Chief Nuclear Officer, 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 President, TVA Nuclear and Chief Nuclear Officer, reports directly to the TVA Board of Directors.

The President, TVA Nuclear and Chief Nuclear Officer, is responsible for the overall safety, efficiency, and economy of nuclear operations. The President, TVA Nuclear and Chief Nuclear Officer, establishes management and operating policies and procedures related to TVA's nuclear 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 President coordinates the activities and functions of TVA Nuclear 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 program.

The President, TVA Nuclear and Chief Nuclear Officer, 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.

TENNESSEE VALLEY AUTHORITY
CORPORATE ORGANIZATION



TAG-FIG11

FIGURE 1-1

The President, TVA Nuclear and Chief Nuclear Officer, is assisted in carrying out these responsibilities by the Senior Vice President, Nuclear Operations, Vice President, Engineering and Technical Services, Vice President, New Plant Completion, and General Managers of Business Services and Nuclear Human Resources.

The President, TVA Nuclear and Chief Nuclear Officer, accomplishes the responsibilities through three vice presidents, and the General Managers of Business Services and Nuclear Human Resources groups. The Vice Presidents' functions are described in the following sections. The Business Services and Nuclear Human Resources groups are discussed below.

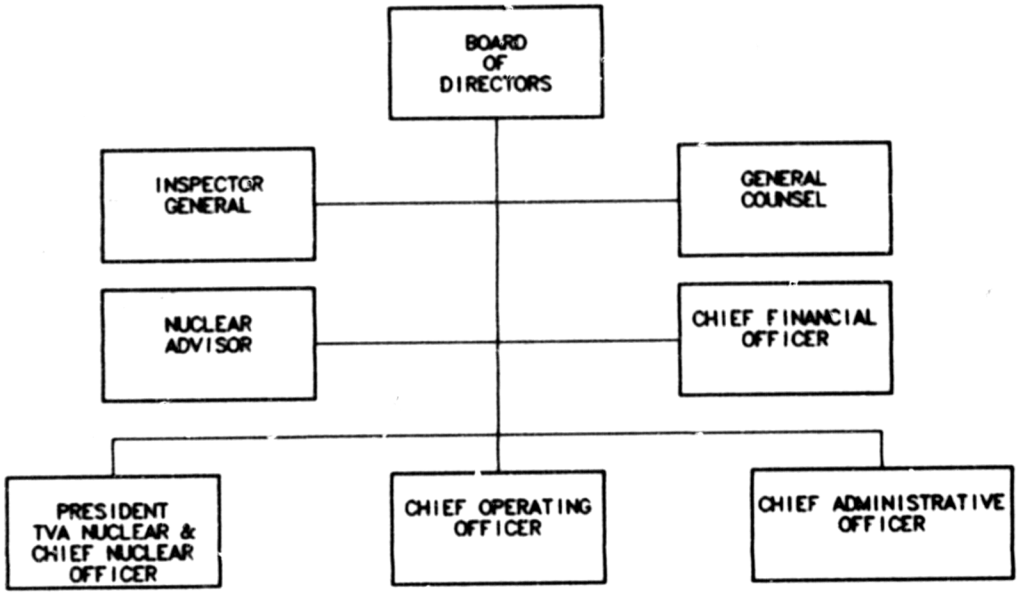
1.3 Business Services

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

1.4 Nuclear Human Resources

The General Manager of Nuclear Human Resources is responsible for developing, coordinating, directing, and managing a viable human resources program for TVA Nuclear. 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, and management development and training. The General Manager of Nuclear Human Resources provides guidance and assistance to senior line managers and human resource specialist to ensure the TVA Nuclear policies and standards are carried out in an efficient and effective manner. The General Manager, Nuclear Human Resources, reports to the President, TVA Nuclear and Chief Nuclear Officer.

TENNESSEE VALLEY AUTHORITY
CORPORATE ORGANIZATION



TAG-FIG11

FIGURE 1-1

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ENGINEERING AND TECHNICAL SERVICES

2.0 Vice President, Engineering and Technical Support (E&TS)

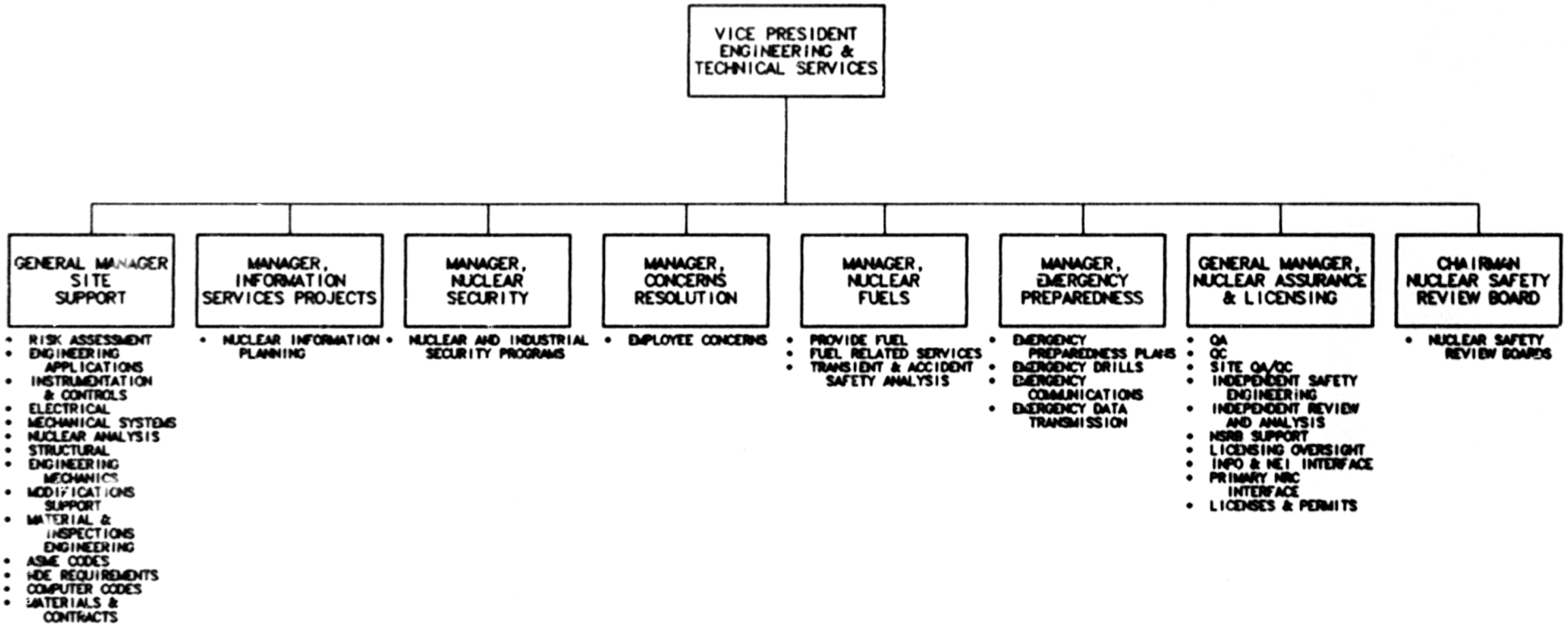
The Vice President, E&TS, is responsible for the general management and oversight of the programmatic activities of Nuclear Assurance and Licensing, Nuclear Fuel, Employee Concerns, Nuclear Security, Emergency Preparedness, Nuclear Safety Review Board, Information Systems Project, Nuclear Support and Corporate Engineering. In addition, E&TS provides oversight of TVAN activities related to quality improvement.

The Vice President, E&TS has eight principal reports and accomplishes responsibilities through the following:

General Manager, Information Services Projects
General Manager, Site Support
General Manager, Nuclear Assurance and Licensing
Chairman, Nuclear Safety Review Board
Manager, Nuclear Fuels
Manager, Nuclear Security
Manager, Concerns Resolution
Manager, Emergency Preparedness

See Figure 2-1 for E&TS Organization Chart.

TVA NUCLEAR ORGANIZATION CHART
ENGINEERING AND TECHNICAL SERVICES



TAG-FIG21

FIGURE 2-1

2.1 Nuclear Assurance and Licensing (NA&L)

The General Manager, NA&L, reports directly to the Vice President, E&TS, and has an independent reporting relationship to the President, TVA Nuclear and Chief Nuclear Officer, 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 ensure conformance to quality assurance program requirements. The General Manager, NA&L, also manages Independent Review and Analysis, Quality Assurance, Licensing and Generation Planning, and the site NA&L managers.

The General Manager, NA&L, is responsible for:

A. Developing and administering the Nuclear Quality Assurance Plan and the NA organization procedures required to ensure that TVA activities provide the required degree of safety reliability;

B. Auditing, inspecting, and assessing the conduct of activities at Corporate and Nuclear Sites 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 at Corporate and Nuclear Sites 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 at Corporate and Nuclear Sites;

E. Establishing upper-tier QA requirements for QA training and for assessing the implementation and effectiveness of that training; and

F. Directing and managing the NA&L organization.

The General Manager, NA&L, is also responsible for the following activities:

G. 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;

H. 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;

I. Providing management and oversight of the generic issues and the corporate commitment tracking programs;

J. Ensuring resolution of NRC issues by developing action plans and managing implementation of those plans; and

K. Managing the coordination of the TVAN interface with nuclear industry groups including INPO, EPRI, NEI, nuclear owner's groups, and other nuclear industry-wide programs.

Descriptions of the General Manager, NA&L organization and responsibilities are described in detail in TVA's Nuclear Quality Assurance Plan TVA-NQA-PLN89-A.

2.2 Nuclear Safety Review Board (NSRB)

The Chairman, NSRB, is responsible for developing and implementing procedures consistent with TVAN policy and NRC requirements to conduct independent nuclear safety assessment and review of TVA's nuclear 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 NSRB to ensure that responsibilities and functions are in accordance with appropriate Technical Specification requirements; and recommends plant safety improvements to the Senior Vice President, Nuclear Operations. The Chairman or designee chairs each meeting of the NSRB; approves and transmits minutes of NSRB meetings; and issues reports consistent with the NSRB charter.

SITE SUPPORT

2.3 General Manager, Site Support

The General Manager, Site Support reports to the Vice President, E&TS, and is responsible for the following primary functions:

A. Establishing and maintaining design and engineering documents, design basis document systems and standards, and is the design authority for Corporate Engineering.

B. Oversight and monitoring of design and engineering functions at TVA nuclear plants;

C. Providing technical expertise to the TVA nuclear plant design, engineering, and modification organizations;

D. Provides project planning as well as procurement, contracts and materials direction and support for TVA's Nuclear plants.

E. Establishing and maintaining probabilistic risk assessment (PRA) methods and expertise;

F. Establishment of design and configuration controls;

G. Development of consistently applied nuclear standards, procedures, and guidelines for modifications;

H. Provides specialized assistance to the plants in improvement programs, welding, and field engineering support; and

I. Maintaining the integrity and technical adequacy of engineering and design of TVAN 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 and reports to General Manager, Site Support.

See Figure 2-2 for Site Support organization chart and Figure 2-3 for the Corporate Engineering organization chart.

TVA NUCLEAR
ENGINEERING AND TECHNICAL SERVICES
SITE SUPPORT

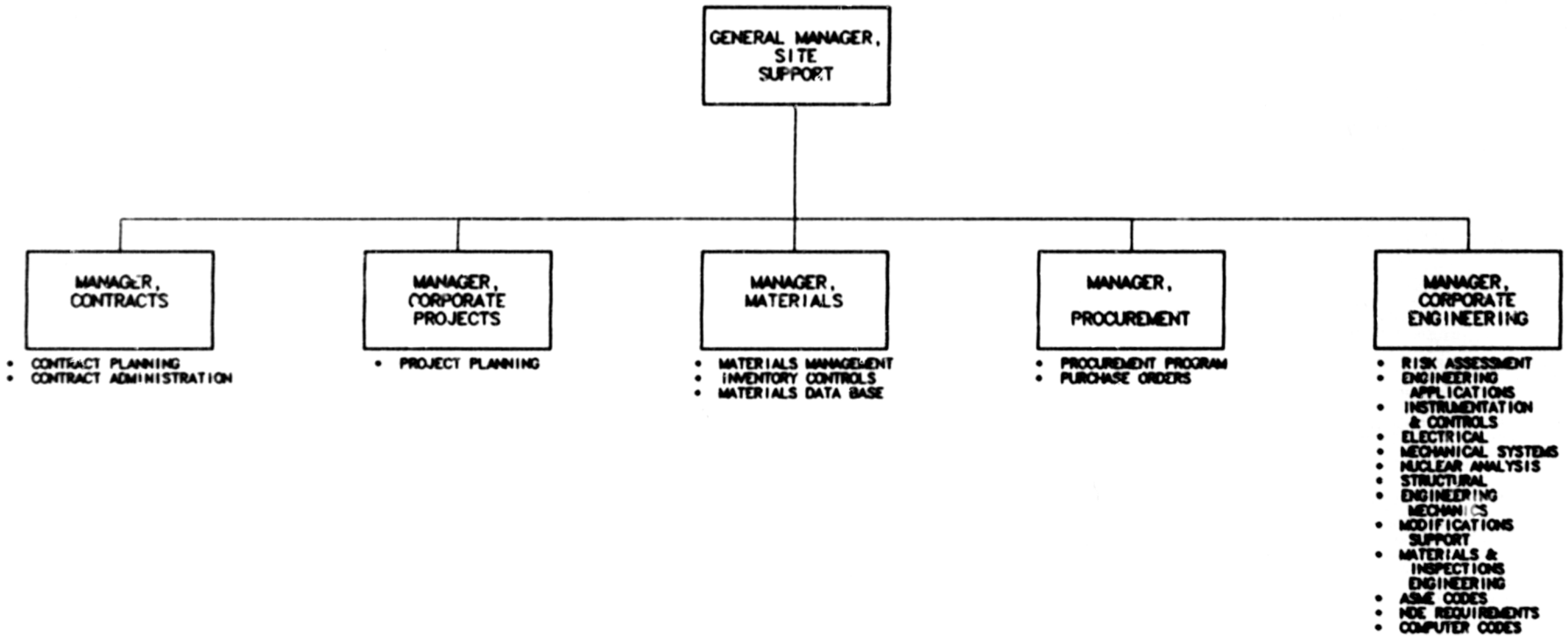


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FIGURE 2-2

TVA NUCLEAR
ENGINEERING AND TECHNICAL SERVICES
CORPORATE ENGINEERING

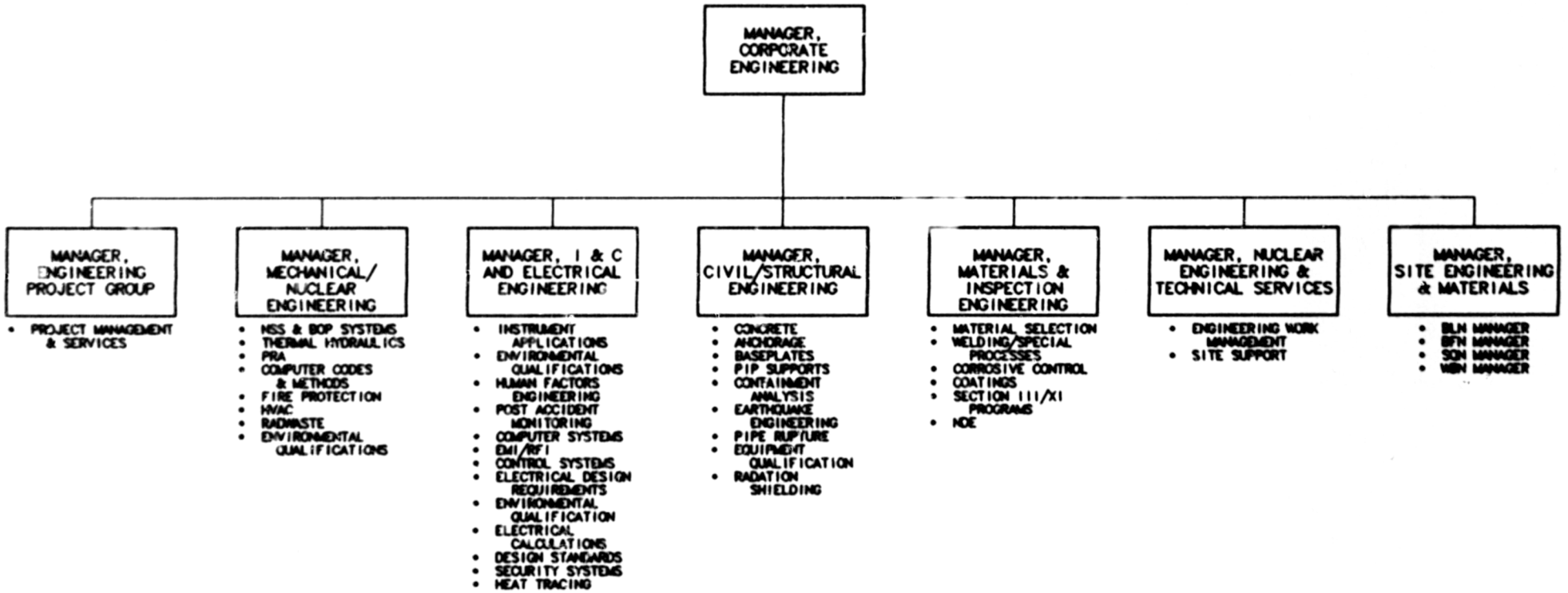

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FIGURE 2-3

2.4 Concerns Resolution

The Manager, Concerns Resolution, is responsible for developing, coordinating, directing, and managing the Concerns Resolution Program for TVAN. The Manager, Concerns Resolution has full-time site representatives at the nuclear sites and the central office. Each location utilizes standard procedures, documentation and recordkeeping and contributes to a common data base of information regarding employee concerns. The Concerns Resolution 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.

2.5 Information Services Projects

The General Manager, Information Services Projects Manager is responsible for both strategic and tactical planning for the effective use of information resources and information technology within TVAN. This manager is also responsible for providing real time computer services in direct support of the nuclear sites and corporate staff. Additionally, the Manager provides project management for TVAN-wide information management projects, work controls for information resource utilization, and defines the requirements for implementation of computer hardware and software in safety-related applications.

2.6 Nuclear Fuels

The Nuclear Fuels Manager 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.

2.7 Nuclear Security

The Security Manager reports to the Vice President, E&TS, and is responsible for the following:

A. Manage the activities of the TVA Nuclear and Industrial Security programs.

B. Evaluate the activities of the operations administrative and support personnel, technical support personnel, and onsite security training to ensure compliance with Nuclear Regulatory Commission (NRC) commitments.

C. Manage the implementation of the Physical Security and Contingency Plan and the Security Personnel Training and Qualification Plans for TVAN.

D. Manage the development and implementation of measures for dealing with contingency events at nuclear facilities.

E. Determine the reportability of security events, and prepare the required reports and notifications to the NRC in accordance with Federal Law.

F. Manage the site security safeguards program and the fitness for duty program.

2.8 Emergency Preparedness

The Manager, Emergency Preparedness reports to Vice President, E&TS, and is responsible for the following:

Provides technical direction and support to the nuclear sites, states and local governments, and directly implements the corporate plan to minimize risks to both the general public and TVA employees.

The Manager, Emergency Preparedness ensures that managed activities are conducted in accordance with appropriate regulations, TVA commitments, policies, and procedures. This position also provides coordination and establishes priorities for the nuclear power emergency communication and data transmission programs and ensures consistency of implementation and availability.

3.0 Senior Vice President, Nuclear Operations

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

General Manager, Operations Services
General Manager, Process Improvement & Total Quality
Vice President, Browns Ferry Site (BFN)
Vice President, Sequoyah Site (SQN)
Vice President, Watts Bar (WBN)

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

3.1 General Manager, Operations Services (OS)

The General Manager, Operations Services is responsible for providing necessary oversight to ensure TVAN 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 General Manager, OS has six principal reports and administers responsibilities through the following managers:

Manager, Nuclear Training
Manager, Performance Assessment
Manager, Operations, Outage and Fire Protection
Manager, Radiological Control
Manager, Chemistry and Environmental Protection
Manager, Maintenance and Technical Support

See Figure 3-2 for the OS organization chart.

3.2 General Manager, Process Improvement and Total Quality

The General Manager, Process Improvement, is responsible for coordination of Process Improvement efforts and Total Quality programs for the TVA Nuclear organization.

TVA NUCLEAR
NUCLEAR OPERATIONS

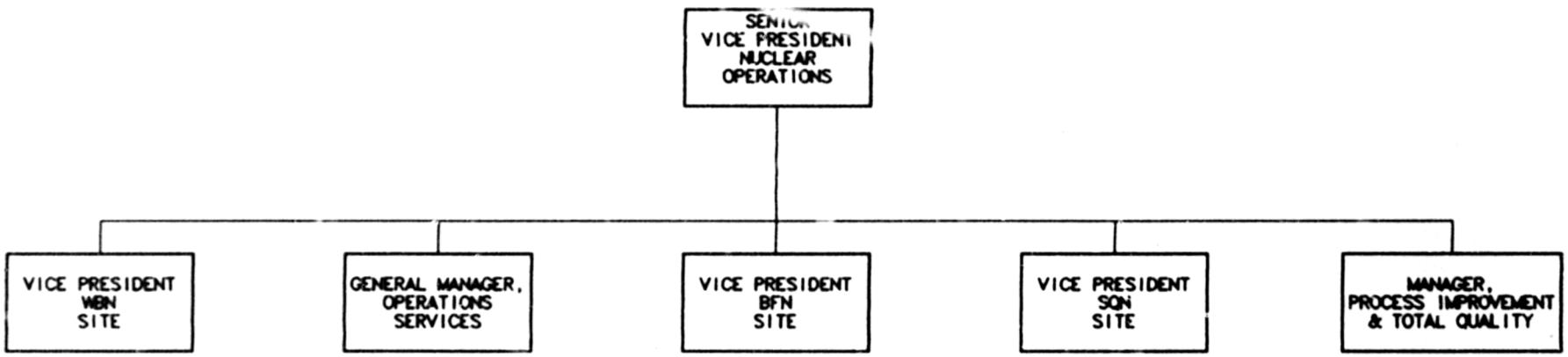

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FIGURE 3-1

TVA NUCLEAR
NUCLEAR OPERATIONS
OPERATIONS SUPPORT

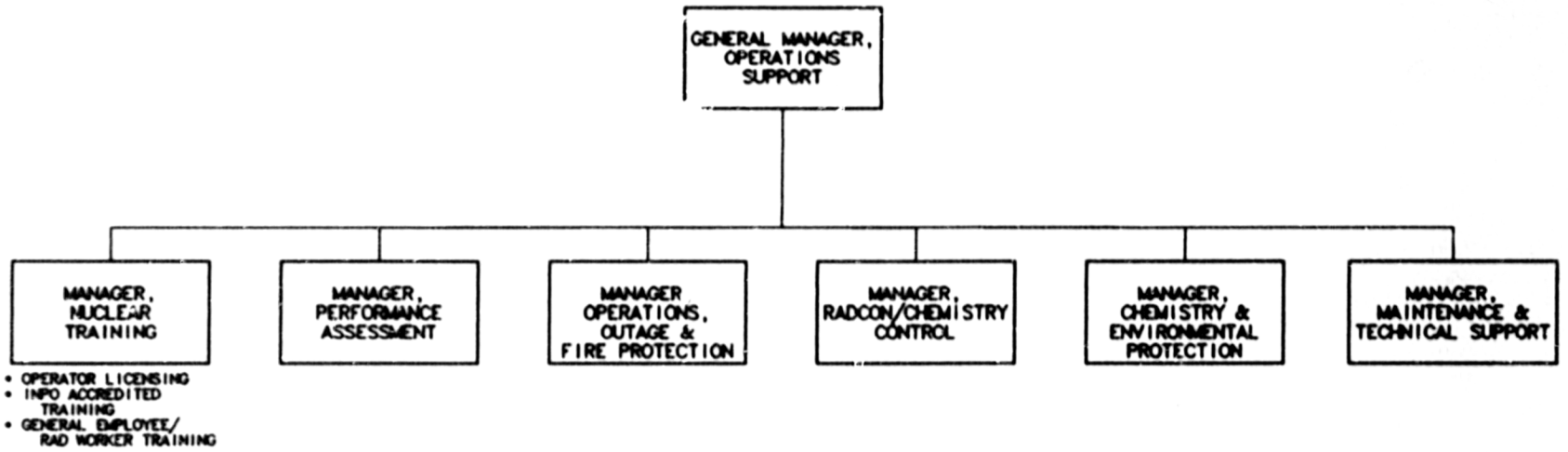

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FIGURE 3-2

3.3 Vice President, Browns Ferry Site (BFN)

The Vice President, BFN Site is responsible and accountable for activities at the site, including operations, modifications, support, and engineering services. The Vice President, BFN determines the nature and extent of onsite and offsite support services required to support assigned site operations in accordance with TVAN policy and procedures. The Vice President, BFN is responsible for the quality of work activities.

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

Site Support Manager
Business and Work Performance Manager
Plant Manager
Site Human Resource Manager
Recovery Manager
Project Management Manager

The Engineering and Materials Manager and the Site Nuclear Assurance and Licensing Manager reports only functionally to the Vice President, BFN.

See Figure 3-3 for the BFN 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:

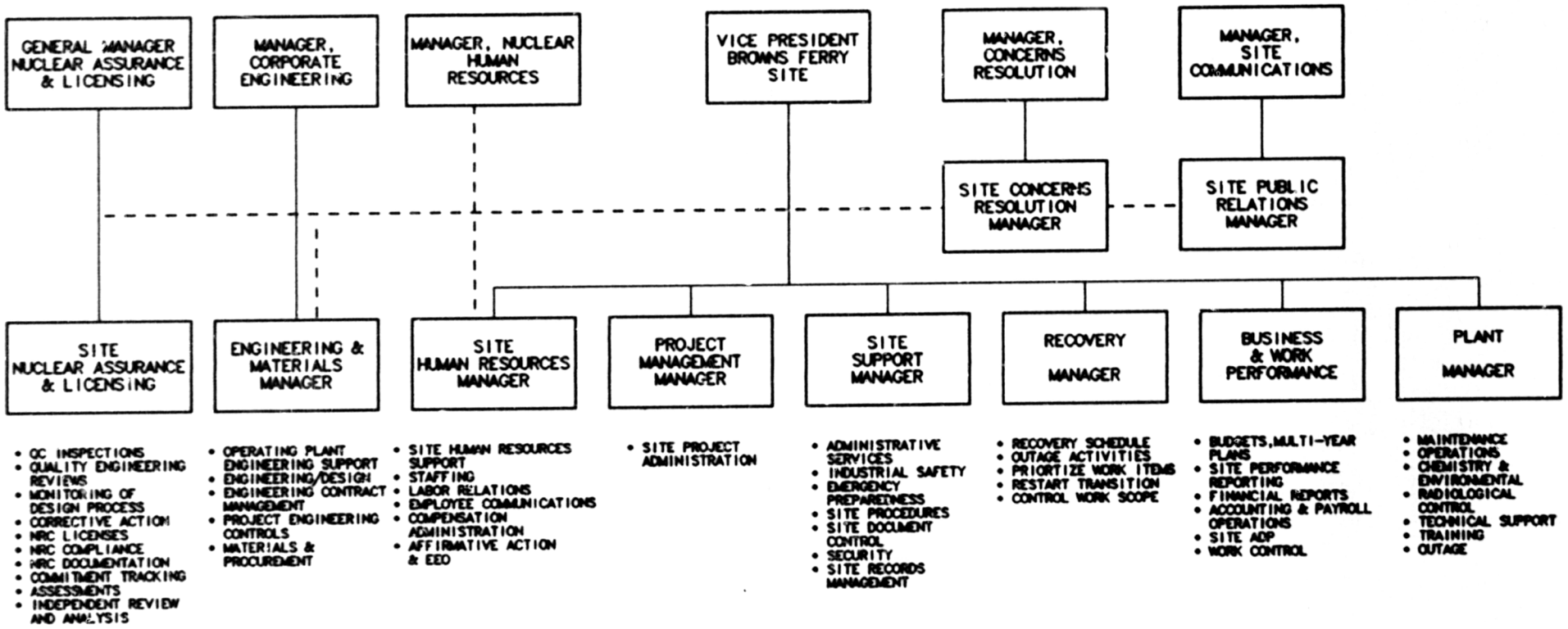
a. Administrative services, document control, records management, and procedure control and processing;

b. Site industrial safety support;

c. Onsite radiological emergency preparedness program;

d. Site security.

TVA NUCLEAR
NUCLEAR OPERATIONS
BROWNS FERRY SITE



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

TAG-FIG33

FIGURE 3-3

3.3.2 Business and Work Performance

The Business and Work Performance Manager is responsible for providing scheduling, business planning financial and budget support to the site. The Business and Work Performance Manager coordinates and monitors the preparation of all budgets, capital or recovery project proposals, multiyear plans and special financial analyses; ensures compliance with TVAN 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. Business and Work Performance provides an accurate, common set of performance data (Scheduling, financial, business planning) and continually improving work methods, and systems that support BFN resources.

3.3.3 Project Management Manager

The Project Management Manager is responsible for:

a. Management oversight and control of the site projects related budget activities.

b. Managing capital and O&M projects to ensure scope, schedule, and budgetary control are within approved guidelines.

c. Coordinating and preparing periodic site operating reports to regulatory and industry organization.

3.3.4 Engineering and Materials

The Engineering and Materials Manager provides overall management and direction using project management concepts to supervise the assigned engineering and materials organizations. This responsibility includes providing administrative and functional direction on scope, schedule, budget, and provide the manpower to perform assigned tasks. The Engineering and Materials provides cost effective Engineering, Materials, procurement and Contract services that support the operations of BFN and restart of Unit 3. Corporate Engineering & Materials is responsible for establishment of design and configuration controls, establishment and maintenance of engineering standards and processes, and monitoring oversight of engineering activities of the sites.

3.3.5 Site Nuclear Assurance and Licensing

The Site Nuclear Assurance and Licensing manager provides licensing services and oversight of quality activities associated with the operation of BFN. Responsibilities are described in detail in TVA's Nuclear Assurance Plan (TVA-NQA-PLN89-A).

3.3.6 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 six principal areas of responsibility and administers them through the following managers:

Maintenance and Modifications Manager
RadCon/Chemistry Control Manager
Outage Manager
Technical Support Manager
Operations Manager
Training Manager

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

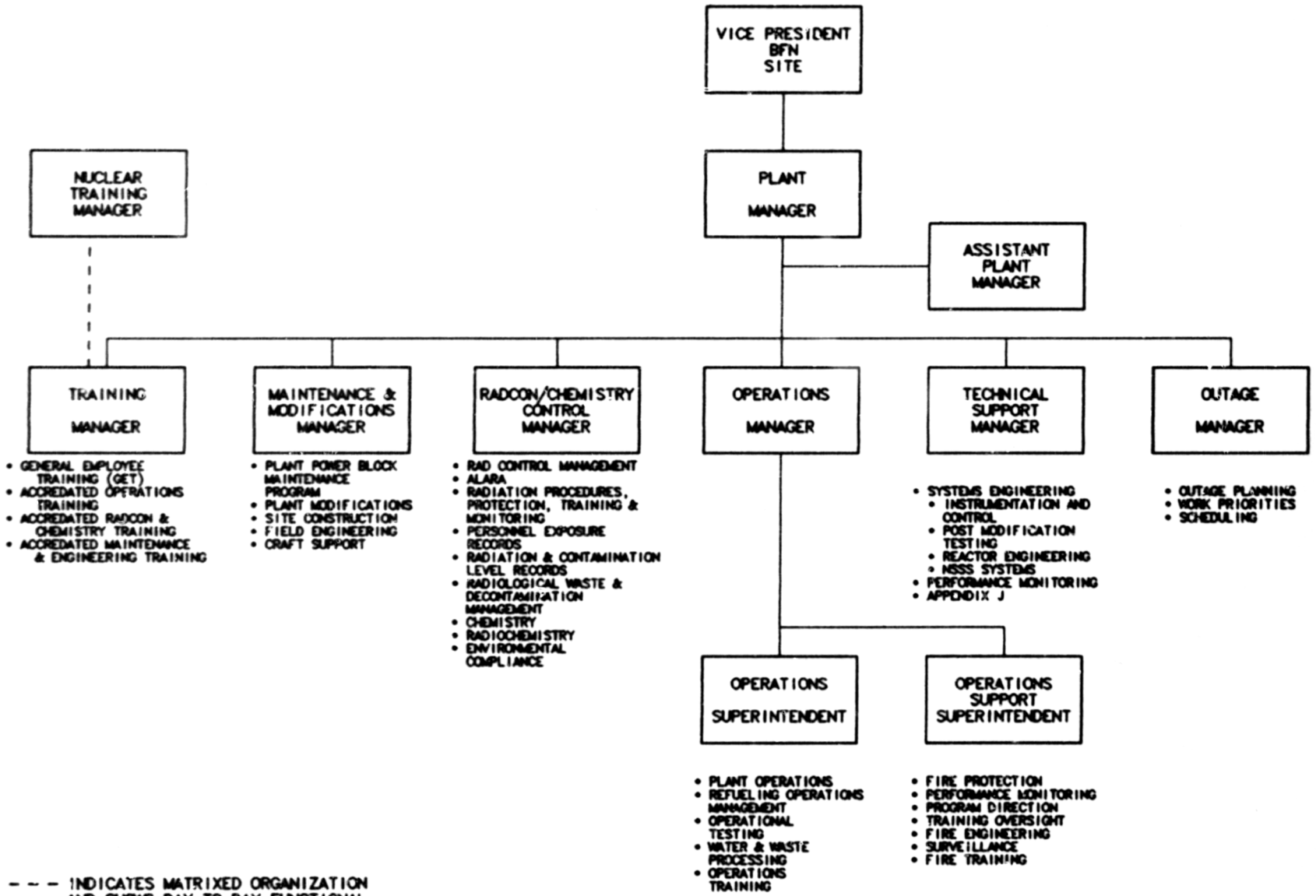
a. Maintenance and Modifications

The Maintenance and Modifications 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. Maintenance and Modifications is responsible for major outage work and Unit 2 modifications. This position manages the development, implementation, and maintenance of the site measuring and test equipment tool rooms.

TVA's Customer Group 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 Customer Group-Muscle Shoals Area Manager and under the functional supervision of the plant Maintenance Manager.

TVA NUCLEAR
NUCLEAR OPERATIONS
BROWNS FERRY SITE
PLANT MANAGER



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

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FIGURE 3-4

b. Radiological and Chemistry Control

The Radiological and Chemistry Control Manager guides programs and activities at the plant ensuring that all operations, maintenance, modifications and engineering activities are conducted in a radiologically safe manner, protect plant systems and equipment, and protect the environment. This includes developing, implementing and managing the Site Radiological Chemistry and Environmental Control programs. The Manager guides technical assistance and project management activities in support of the site consistent with regulatory requirements. The Manager develops and maintains procedures and applies standards necessary for the Radiological, Chemistry and Environmental Control programs. The Manager supports the site training program and provides specialized training in radiological, chemistry and environmental disciplines. The Manager is responsible for personnel radiation, plant chemistry and environmental monitoring to ensure compliance with all applicable requirements. The Manager is responsible for maintaining continuing records of personnel exposure, plant radiation and contamination levels, plant effluents and plant chemistry. The Radiological and Chemistry Control Manager is responsible for implementation of effective site programs for chemistry, radiochemistry, radiological and environmental compliance.

c. Outage Manager

The Outage Manager has overall responsibility for outage planning, coordination, and monitoring. The manager plans all outages, establishes work priorities, and coordinates shift turnover.

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.

e. Operations Manager

The Operations Manager has responsibility for planning, organizing, setting policy, and motivation relating to Operations, and supporting activities (e.g., fire protection surveillances). These activities include operational strategies for generation, water and waste usage, approved authority for system enhancements, and prioritization of maintenance activities. To meet these objectives, functions related to Operations and supporting activities are grouped under one manager responsible for facility generation (i.e., Operations Manager).

The Operations Manager has two principal reports:

Operations Superintendent
Operations Support Superintendent

Operations Superintendent

The Operations Superintendent is responsible for all plant operations. The superintendent, through the shift operations supervisors, manages the day-to-day operation of the facility, refueling operations, start-up, 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.

The shift crew for one unit operating normally consist of the Shift Operations Supervisor (SRO), Assistant Shift Operations Supervisor (SRO), Unit Operators (RO), and Assistant Unit Operators (AUOs). Additional licensed and non-licensed personnel are 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.

Operations Support Superintendent

The Operations Support Superintendent is responsible for budget preparation, training oversight, performance monitoring, and assist the Operations manager in overall program direction for operations. The Fire Operations Supervisor, with the overall responsibility for the fire protection program, reports to the Operations Support Superintendent.

3.3.7 Site Human Resources

The Manager of Human Resources is responsible for developing, coordinating, directing, and managing the human resources program for BFN. 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, and training.

3.3.8 Recovery Manager

The Recovery Manager is responsible for the complete recovery of Unit 3 and turnover to the plant. This is a temporary position that will be dissolved at Unit 3 restart.

3.4 Vice President, Sequoyah 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 direct reports and administers responsibilities through the following managers:

Site Support Manager
Business and Work Performance Manager
Plant Manager
Site Human Resources Manager
Project Management Manager

The Engineering and Materials Manager and the Nuclear Assurance and Licensing Manager reports only functionally to the Vice President, SQN.

See Figure 3-5 for the SQN organization chart.

3.4.1 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; and

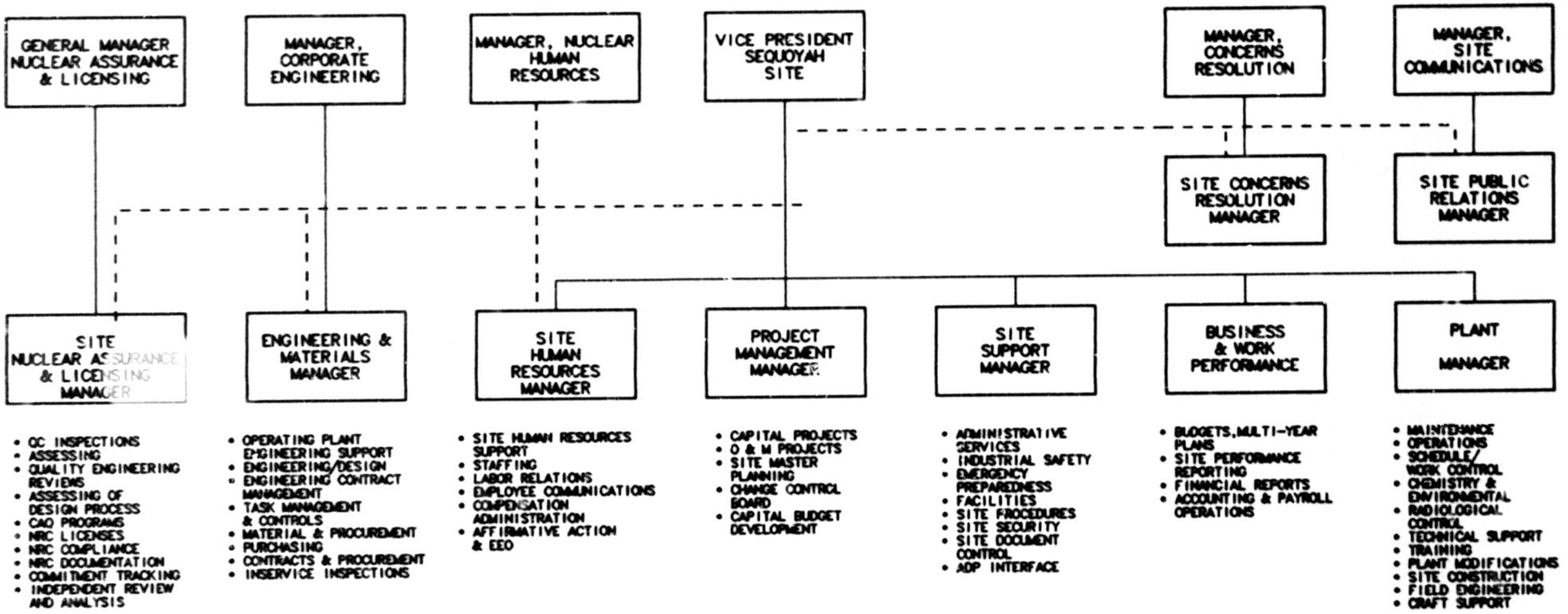
d. Site security

3.4.2 Business and Work Performance

The Business and Work Performance Manager is responsible for:

a. Site Scheduling Manager, responsible for all aspects of the plant scheduling process and project controls to ensure that all scheduling, estimating, and cost engineering programs are comprehensive. Provides all site management with long-range and short-range scheduling, integrated schedules, cost schedule integration, cost analysis, and performance measurement.

TVA NUCLEAR
NUCLEAR OPERATIONS
SEQUOYAH SITE



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

TAG-FIG35

FIGURE 3-5

b. Site Controller, who is responsible for financial activities to provide the overall accounting, budget, and business reporting processes for all areas of activity at the site.

c. Site Performance Analysis, who directs the development, implementation, and oversight of site analysis and reporting systems to monitor key indicators, compile data that can be utilized to reduce costs, and increase overall site effectiveness and efficiency.

d. Methods and Procedures Manager, who manages the development, implementation, and oversight of improvements to TVAN methods and processes to ensure streamlining, standardization, reduction of cost and cycle time, and increased overall site effectiveness and efficiency.

e. Information Systems Manager, who manages the development and implementation of site information systems infrastructure for information highway-related hardware and software.

3.4.3 Project Management Manager

The Project Management Manager is responsible for:

a. Management oversight and control of the site projects related budget activities.

b. Managing capital and O&M projects to ensure scope, schedule, and budgetary control are within approved guidelines.

c. Coordinating and preparing periodic site operating data reports to regulatory and industry organization.

3.4.4 Engineering and Materials

The Engineering and Materials Manager provides overall management and direction to assigned engineering, inservice inspection, and materials organizations. This responsibility includes providing administrative and functional direction on scope, schedule, budget, and provide the manpower to perform assigned tasks. The Engineering and Materials Manager is responsible for contracts, materials, and procurement. Corporate Engineering is responsible for establishment of design and configuration controls, establishment and maintenance of engineering standards and processes, and monitoring oversight of engineering activities of the sites.

3.4.5 Site Nuclear Assurance and Licensing

The Site Nuclear Assurance and Licensing Manager provides licensing services and oversight of quality activities associated with the operation of SQN. Responsibilities are described in detail in TVA's Nuclear Assurance Plan (TVA-NQA-PLN89-A).

3.4.6 Plant Manager

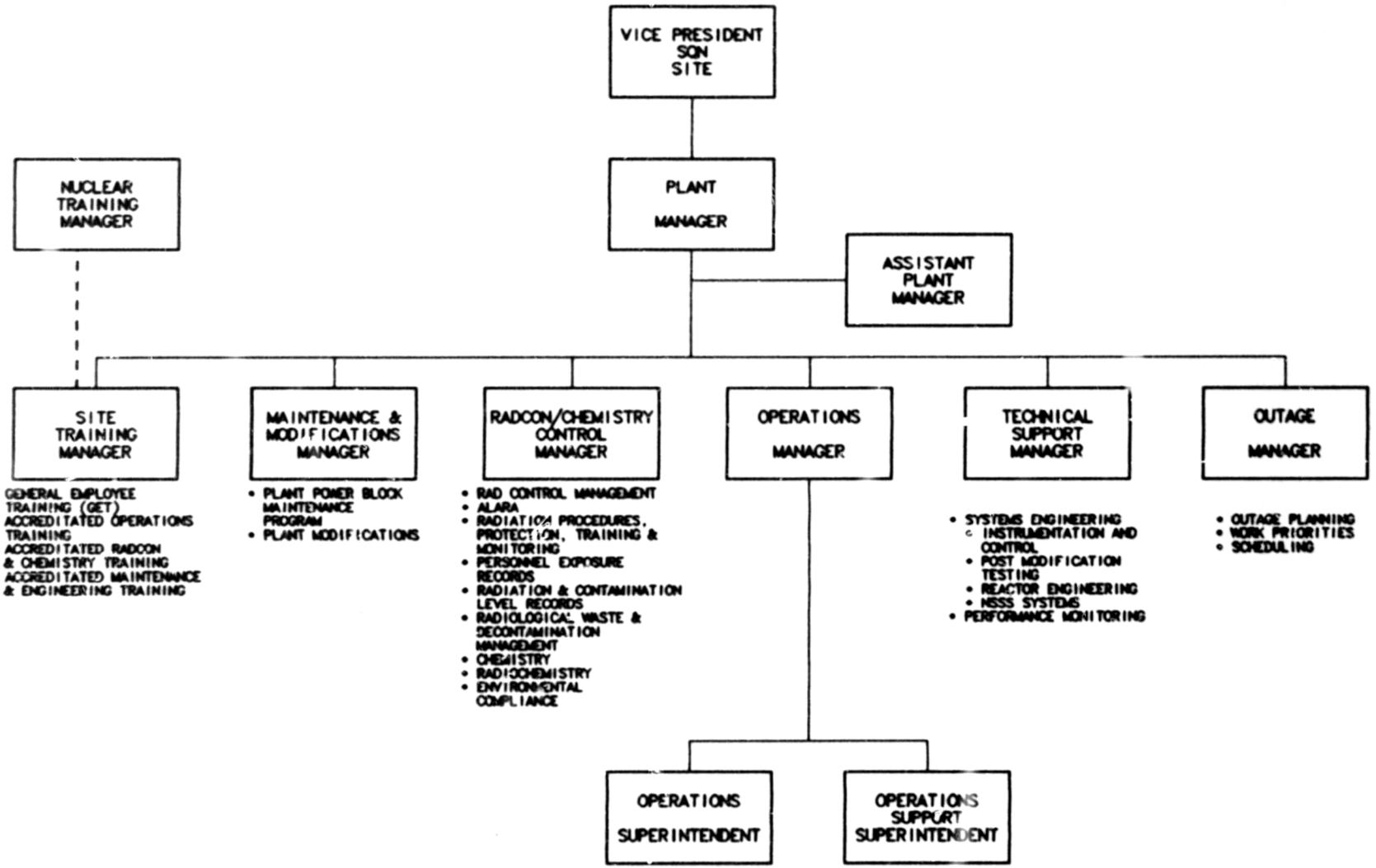
The primary responsibility and authority for ensuring safe, reliable, and efficient plant operations in conformance and compliance with all Federal, State, and local laws and regulations are vested in the Plant Manager. The Plant Manager is responsible for ensuring that hardware and software modifications 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 six principal reports and administers responsibilities through the following managers:

Maintenance and Modifications Manager
RadCon/Chemistry Control Manager
Outage Manager
Technical Support Manager
Operations Manager
Training Manager

See Figure 3-6 for the Plant Manager's organization chart.

TVA NUCLEAR
NUCLEAR OPERATIONS
SEQUOYAH SITE
PLANT MANAGER



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

TAG-FIG36

FIGURE 3-6

a. Maintenance and Modifications

The Maintenance and Modifications 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. Maintenance and Modifications is responsible for major outage work and modifications. This position manages the development, implementation, and maintenance of the site measuring and test equipment tool rooms.

TVA's Customer Group 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 Customer Group-Muscle Shoals Area Manager and under the functional supervision of the plant Electrical Maintenance Manager.

b. RadCon/Chemistry Control

The RadCon/Chemistry Control Manager is responsible for radiological control and chemistry 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 RadCon/Chemistry 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. The RadCon/Chemistry Control Manager is responsible for implementation of effective site programs for plant chemistry, radiochemistry and environmental compliance.

c. Outage Manager

The Outage Manager is responsible for managing the planning and implementation of activities performed during scheduled or forced outages. Manages matrix organizations assigned to him to enure proper planning, proper precautions for safety, and proper control of dose exposure of employees are included in outage planning and execution process.

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.

e. Operations Manager

The Operations Manager has responsibility for planning, organizing, setting policy, and motivation relating to Operations, and supporting activities (e.g., fire protection surveillances). These activities include operational strategies for generation, fire protection, water and waste usage, approved authority for system enhancements, and performance monitoring activities. To meet these objectives, related functions are grouped under one manager responsible for facility generation (i.e., Operations Manager).

The Operations Manager has two principal reports:

Operations Superintendent
Operations Support Superintendent

Operations Superintendent

The Operations Superintendent is responsible for all plant operations. The superintendent, through the shift operations supervisors, manages the day-to-day operation of the facility, refueling operations, start-up, 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.

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.

Operations Support Superintendent

The Operations Support Superintendent provides support to the operations organization through procedure development, development and oversight of the maintenance program, final maintenance rule implementation and implementation of the training candidate program. The superintendent assists the Operations Manager in overall program direction for Operations.

The Fire Operations Supervisor, with the overall responsibility for the fire protection program, reports to the Operations Support Superintendent.

3.4.7 Site Human Resources

The manager of Human Resources is responsible for developing, coordinating, directing, and managing the human resources program for SQN. 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, and training.

3.5 Vice President, Watts Bar Site (WBN)

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

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

Site Business and Work Performance
Site Operations Vice President
Recovery Coordinator
Construction Completion

The Senior Vice President, Nuclear Operations, is temporarily filling the Vice President, Watts Bar Site position and is managing the construction and support functions in preparation for startup.

Prior to fuel load, as the plant approaches operational status, WBN will move to the standard operating organization as reflected at TVAN's other operating sites (BFN and SQN). The Vice President, Site Operations, will assume the responsibilities of the Vice President, WBN.

The Engineering and Materials Manager and the Site Nuclear Assurance and Licensing Manager reports only functionally to the Vice President.

See Figure 3-7 for the Vice President, WBN, Site organization chart.

3.5.1 Engineering and Materials Manager

The Engineering and Materials Manager provides overall management and direction using project management concepts to supervise the assigned engineering and materials organizations. This responsibility includes providing administrative and functional direction on scope, schedule, budget, and provide the manpower to perform assigned tasks. The Engineering and Materials provides cost effective engineering, materials, procurement and contract services that support the startup of WBN. Corporate Engineering is responsible for establishment of design and configuration controls, establishment and maintenance of engineering standards and processes, and monitoring oversight of engineering activities of the sites.

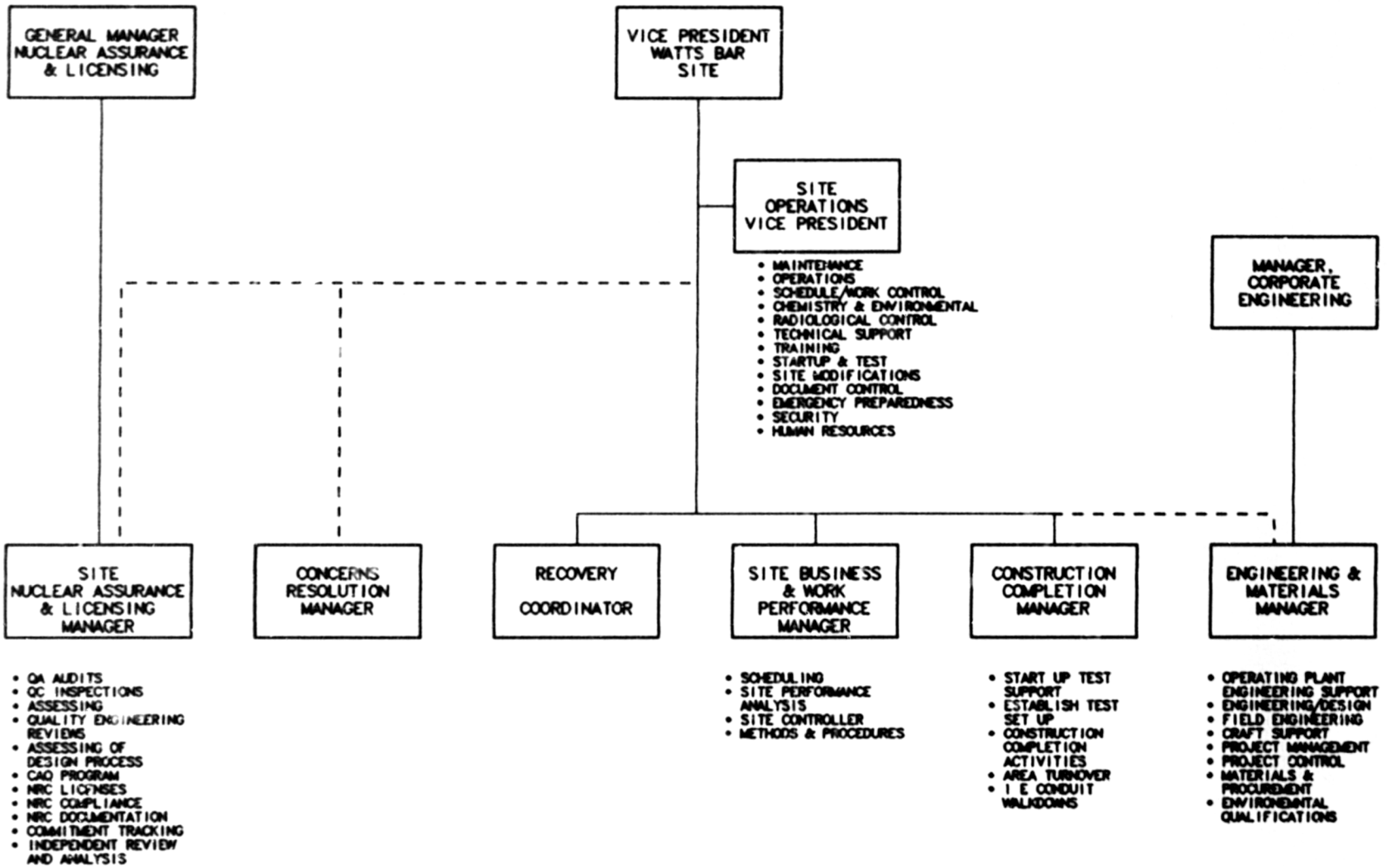
3.5.2 Site Business and Work Performance

The site Business and Work Performance Manager is responsible for:

a. Site Scheduling Manager, responsible for all aspects of the plant scheduling process and project controls to ensure that all scheduling, estimating, and cost engineering programs are comprehensive. Provides all site management with long-range scheduling, integrated schedules, costs/schedule integration, cost analysis, and performance measurement.

b. Site Controller, who is responsible for financial activities to provide the overall accounting, budget, and business reporting processes for all areas of activity at the site.

TVA NUCLEAR
NUCLEAR OPERATIONS
WATTS BAR SITE



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

TAG-FIG37

FIGURE 3-7

c. Site Performance Analysis, who directs the development, implementation, and oversight of site analysis and reporting systems to monitor key indicators, compile data that can be utilized to reduce costs, and increase overall site effectiveness and efficiency.

d. Methods and Procedures Manager, who manages the development, implementation, and oversight of improvements to Nuclear Power methods and processes to ensure streamlining, standardization, reduction of costs and cycle time, and increased overall site effectiveness and efficiency.

3.5.3 Construction Completion

The Plant Completion Manager provides support for startup testing, establishes test setup, performs construction completion activities, completes area turnover process and corrects deficiencies, performs walkdowns and corrects deficiencies. This is a temporary position that will be dissolved at startup.

3.5.4 Site Nuclear Assurance and Licensing Manager

The site Nuclear Assurance and Licensing Manager provides licensing services and oversight of quality activities associated with the startup and operation of WBN. Responsibilities are described in detail in TVA's Nuclear Assurance Plant (TVA-NQA-PLN89-A).

3.5.5 Site Operations Vice President

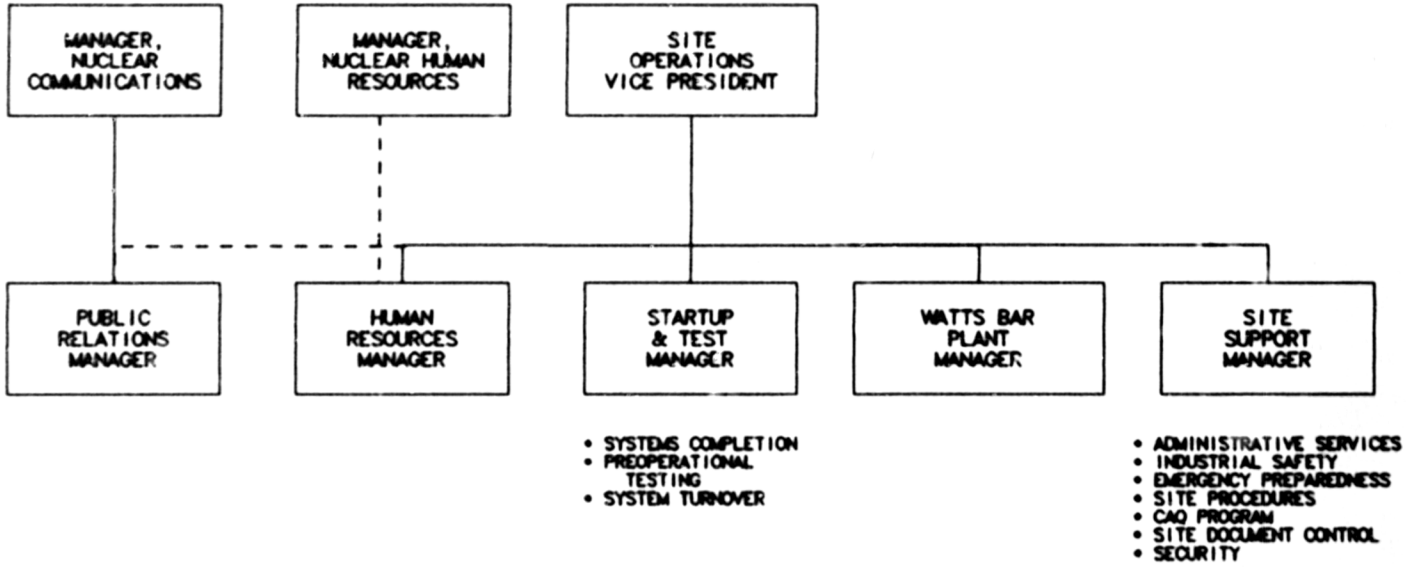
The Vice President of Site Operations, reports directly to the Vice President, WBN. The Vice President of site Operations is responsible for WBN plant organization, system acceptance and operational readiness.

The Vice President of site Operations, has four principal reports and administers responsibilities through them. The principal reports are as follows:

Plant Manager
Startup and Test Manager
Site Support Manager
Site Human Resource Manager

See figure 3-8 for the Site Operations organization chart.

TVA NUCLEAR
NUCLEAR OPERATIONS
SITE OPERATIONS



TAG-FIG38

FIGURE 3-8

A. 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.

See Figure 3-9 for Plant Manager organization chart.

1. Maintenance and Modifications

The Maintenance Modifications 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. Maintenance and Modifications is responsible for modifications to the plant and will be responsible for major outage work during operations. Facilities, including custodial and tool room services, report to the Maintenance and Modifications Manager.

2. 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.

3. Operations Manager

The Operations Manager is responsible for the functional areas of operations, water and waste processing and fire protection.

The Operations Superintendent, who reports to the Operations Manager, directs the activities of the Operations Department. This superintendent coordinates changes in operating procedures and is responsible for supervision of day-to-day operational activities of the plant. The Operations Superintendent is also responsible for assessing the content and verifying the adequacy of classroom and simulator training.

TVA NUCLEAR
NUCLEAR OPERATIONS
SITE OPERATIONS
PLANT MANAGER

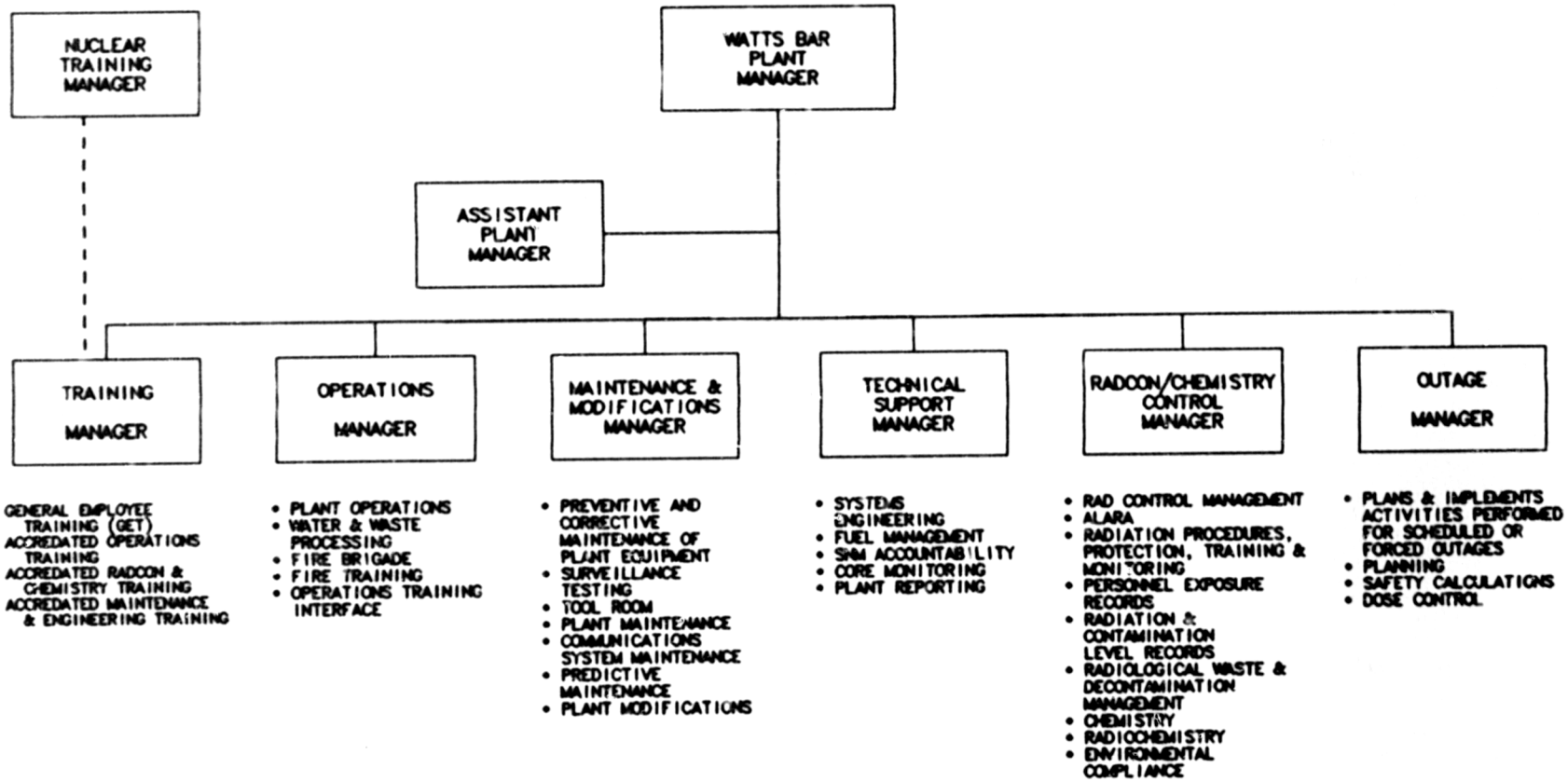


FIGURE 3-9

TAG-FIG39

The shift crew for one unit operating normally consist of the Shift Operations Supervisor (SRO), Assistant Shift Operations Supervisor (SRO), Unit Operators (RO), and Assistant Unit Operators (AUOs). 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.

Other Operations support positions are responsible for budget preparation, performance monitoring, fire protection, and assist the Operations Manager in overall program direction for Operations.

4. RadCon/Chemistry Control

The RadCon/Chemistry Control Manager is responsible for chemistry and 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 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.

5. Outage

The Outage Manager is responsible for managing the planning and implementation of activities performed during scheduled or forced outages. Manages matrix organizations assigned to him to ensure proper planning, proper precautions for safety, and proper control of dose exposure of employees are included in outage planning and execution process.

B. Startup and Test

The Startup and Test Manager is responsible for activities necessary to achieve system completion, preoperational testing, and operations turnover for those systems necessary to ensure the adequate completion of WBN in support of licensing and plant startup. This is a temporary position that will be dissolved at startup.

C. 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

D. Site Human Resources

The manager of Human Resources is responsible for developing, coordinating, directing, and managing the human resources program for WBN. 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, and training.

4.0 Vice President, New Plant Completion

The Vice President, New Plant Completion, is responsible for Bellefonte startup. The key functions of the Vice President, New Plant Completion, 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, New Plant Completion, principal report is the General Manager, Bellefonte Site.

4.1 General Manager, Bellefonte Site (BLN)

The General Manager, BLN, reports to the Vice President of New Plant Completion and has overall responsibility for construction completion, startup, operation, and site management. The General Manager, BLN has overall responsibility for the quality of the plant and is the principal interface with the NRC and works with the Vice President, Engineering and Technical Support on BLN regulatory policies and issues.

Organizational relationships and responsibilities reported herein reflect Administrative structures. Functional relationships and responsibilities may vary from this report. Current organizational relationships and responsibilities are reflected in BLN SSP 1.50.

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

4.1.1 Site Nuclear Assurance & Licensing

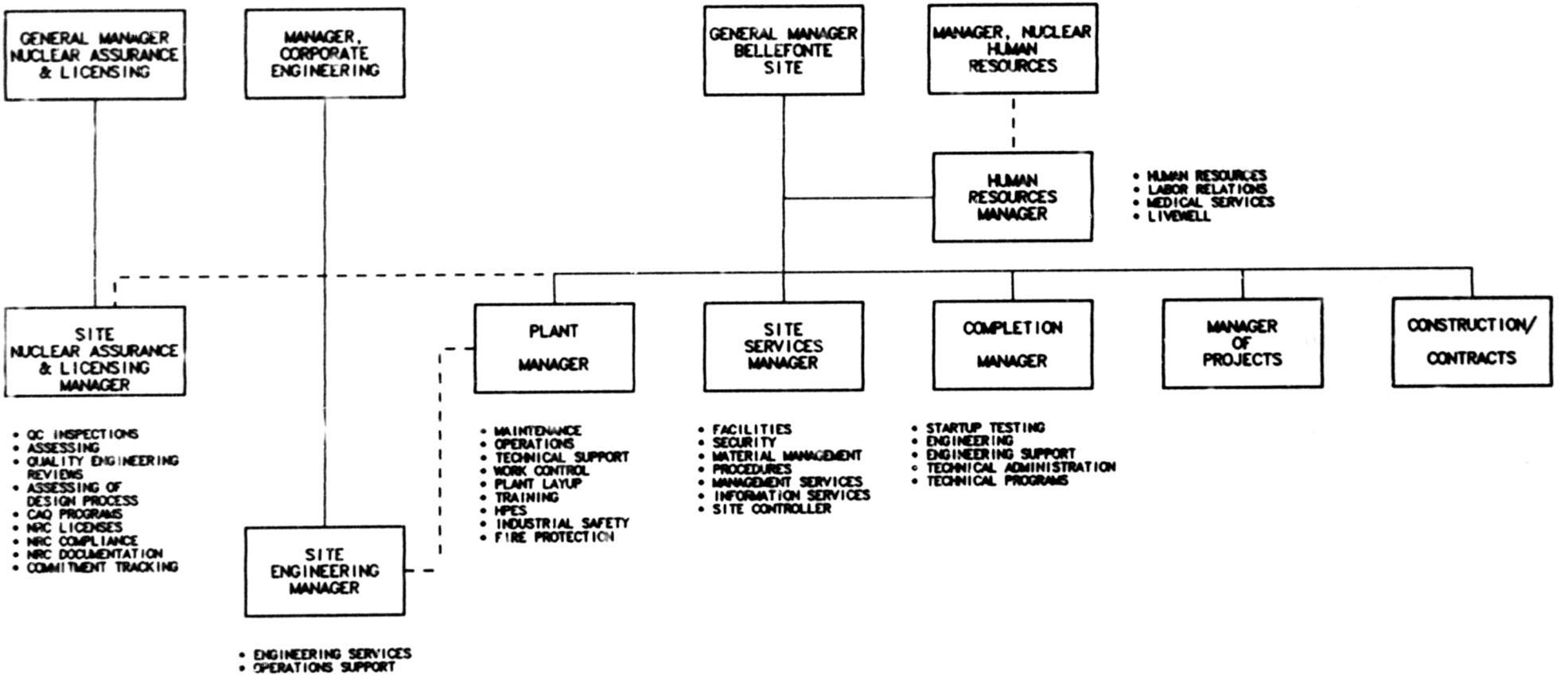
The Site Nuclear Assurance and Licensing Manager provides licensing services and oversight of quality activities associated with BLN. Responsibilities are described in detail in TVA's Nuclear Assurance Plan (TVA-NQA-PLN89-A).

4.1.2 Completion Department Manager

The Completion Department Manager reports functionally to the General Manager, BLN, and has overall responsibility for the management and implementation of programs and activities required to complete BLN as an operating facility. The Completion Department Manager has site design authority and is responsible for completion of engineering and design, Unit 1 and 2 construction and verification testing.

The Completion Department Manager is also responsible for all support functions assigned to the Completion Department including completion procedures, training of personnel, support for the Manager, NA&L on licensing issues and interface with the Manager, NA&L on quality issues.

TVA NUCLEAR
NEW PLANT COMPLETION
BELLEFONTE SITE



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TAG-FIG41

FIGURE 4-1

4.1.3 Site Engineering Manager

The Site Engineering Manager reports functionally to the Plant Manager, BLN, and has the overall responsibility of providing technical support to site department associated with the protection and preservation of plant equipment and facilities. This is accomplished by providing day-to-day technical support to the appropriate site departments. The Site Engineering Manager is also responsible for actively monitoring and participating in Completion Department design engineering activities and decision making processes that influence approved workscope, plant design basis development, and design verification.

4.1.4 Manager of Projects

The Manager of Projects reports directly to the General Manager, BLN. The Manager of Projects implements project management concepts for plant completion and modification. The Manager of Projects has responsibility for site wide hardware/software nuclear power projects which may cross organizational boundaries. He assures that these projects are initiated, conducted, completed, and closed on schedule and within budget.

4.1.5 Plant Manager

The Plant Manager reports directly to the General Manager, BLN. The Plant Manager's organization is comprised of major groups including, Maintenance, Operations, Training, Industrial Safety, Site Engineering, and Work Control. The manager of each group reports to the Plant Manager. The Plant Manager ensures that qualified personnel, procedures, programs, and management direction are available to maintain the plant preservation and layup program to support activities of the Completion Department and all perform activities for plant startup and operation turned over from the Completion Department.

4.1.6 Site Services Manager

The Site Services Manager reports directly to the General Manager, BLN, and has overall responsibility for the management and oversight of staff administrative and support functions. The Site Services Manager accomplishes functional responsibilities by providing direction to the manager of each of the following groups:

Management Services (MS)
Materials Management/Procurement
Site Controller
Security
Procedures and Information Services

4.1.7 Construction/Contracts Manager

The Construction/Contracts Manager reports directly to the General Manager, BLN and directs and manages the construction and contracts for the site. He also provides day to day direction and management of the Contract Administration function.

ORGANIZATION DESCRIPTION

LIST OF REVISIONS

REVISION 0	June 1, 1989
REVISION 1	August 13, 1990
REVISION 2	April 18, 1991
REVISION 3	April 17, 1992
REVISION 4	December 27, 1993
REVISION 5	December 16, 1994
REVISION 6	June __, 1995