

Tennessee Valley Authority, 1101 Market Street, Chattanooga, Tennessee 37402-2801

August 30, 2005

10 CFR 50.71(e)

U.S. Nuclear Regulatory Commission ATTN: Document Control Desk Washington, D.C. 20555-0001

Gentlemen:

In the Matter of the	)	Docket Nos.	50-259	50-390
Tennessee Valley Authority	)		50-260	50-391
			50-296	50-438
			50-327	50-439
			50-328	

TVA NUCLEAR (TVAN) ORGANIZATION TOPICAL REPORT - BELLEFONTE, BROWNS FERRY, SEQUOYAH, AND WATTS BAR NUCLEAR PLANTS

Enclosed is the revised Topical Report which incorporates organizational changes that have been announced through July 31, 2005.

Revision 14 to the TVAN organization Topical Report describes the organizations responsible for the management and operation of TVA's nuclear projects. The primary revisions include: (1) the continued standardization of organizations at the operating sites, and (2) the further consolidation of TVAN functions to align TVAN's Corporate functions and organization. This ensures enhanced service and support to the nuclear sites and efficient and effective delivery of that support. TVA is currently evaluating additional standardization at its operating sites in an effort to further improve the organization's effectiveness and efficiency.

Since this Topical Report encompasses multiple plants, subsequent updates will be filed on a yearly basis to ensure that TVA meets the refuel cycle criterion of 10 CFR 50.71(e) for each unit at each site. If you have any questions concerning this information, please contact Terry Knuettel at (423) 751-6673.

Sincerely,

Glenn W. Morris

Manager, Corporate Nuclear Licensing

and Industry Affairs

Glenn W. Mor

Enclosure

cc: See page 2

Q004

U.S. Nuclear Regulatory Commission Page 2 August 30, 2005

#### cc (Enclosure):

ì

U.S. Nuclear Regulatory Commission Region II Sam Nunn Atlanta Federal Center 61 Forsyth Street, SW, Suite 23T85 Atlanta, Georgia 30303-8931

Ms. Eva A. Brown, Project Manager U.S. Nuclear Regulatory Commission MS 8G9A One White Flint, North 11555 Rockville Pike Rockville, Maryland 20852-2739

Ms. Margaret H. Chernoff, Project Manager U.S. Nuclear Regulatory Commission MS 8G9A One White Flint, North 11555 Rockville Pike Rockville, Maryland 20852-2739

Mr. Douglas V. Pickett, Project Manager U.S. Nuclear Regulatory Commission MS 8G9A
One White Flint, North
11555 Rockville Pike
Rockville, Maryland 20852-2739

NRC Senior Resident Inspector Browns Ferry Nuclear Plant 10833 Shaw Road Athens, Alabama 35611-6970

NRC Senior Resident Inspector Sequoyah Nuclear Plant 2600 Igou Ferry Road Soddy Daisy, Tennessee 37379-3624

NRC Senior Resident Inspector Watts Bar Nuclear Plant 1260 Nuclear Plant Road Spring City, Tennessee 37381-2000

## 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 29, 1995
REVISION 7	June 27, 1997
REVISION 8	August 25, 1999
REVISION 9	August 25, 2000
REVISION 10	August 24, 2001
REVISION 11	August 26, 2002
REVISION 12	August 22, 2003
REVISION 13	August 31, 2004
REVISION 14	August 30, 2005

# TVA NUCLEAR ORGANIZATION DESCRIPTION

#### **CONTENTS**

	List of Figuresiv
	Abstractv
	Introductionvi
1.0	Corporate Organization1
1.1	TVA Nuclear (TVAN)
1.2	Chief Nuclear Officer and Executive Vice President (TVAN)
1.3	Senior Vice President, Procurement2
1.4	General Managers, Materials Management Services and Contracts 2
1.5	Vice President, Human Resources (HR) Operations Support
1.6	Vice President, BFN Unit 1 Restart 4
2.0	General Manager, Engineering and Technical Services11
2.1	Manager, Nuclear Engineering11
2.2	Manager, Civil Engineering12
2.3	Manager, Mechanical/Nuclear Engineering13
2.4	Manager, Electrical/Instrumentation and Control Engineering
2.5	Manager, Nuclear Materials Technology & Codes
2.6	Manager, Inspection Services
2.7	Manager, Nuclear Fuel Design
3.0	Senior Vice President, Nuclear Operations
3.1	General Manager, Process Methods
3.2	Manager, Plant Operational Reliability
3.3	Manager, Technical Program Reliability
3.4	Manager, Computer Engineering
3.5	Manager, Maintenance and Modifications
3.6	Manager, Operations 18
3.7	Vice President, Browns Ferry Nuclear (BFN) Site20

3.8	Vice President, Sequoyah Nuclear (SQN) Site	29
3.9	Vice President, Watts Bar Nuclear (WBN) Site	38
4.0	Vice President, Nuclear Support	47
4.1	Manager, Business & Project Services	47
4.2	Manager, Emergency Services	48
4.3	Manager, Nuclear Assurance and Licensing	48
5.0	Vice President, Nuclear Assets Recovery and Strategic Projects	49
5.1	Manager, BLN Maintenance	50
5.2	Manager, Nuclear Fuel Supply & Disposal Projects	50

## LIST OF FIGURES

Figure 1-1	TVA Corporate Organization	7
Figure 1-2	TVA Nuclear	8
Figure 1-3	Browns Ferry Nuclear Plant Unit 1 Restart	9
Figure 1-4	HR Operations Support	10
Figure 2-1	TVAN, Engineering and Technical Services	15
Figure 3-1	TVAN, Nuclear Operations	19
Figure 3-2	Browns Ferry Nuclear Plant, Site Vice President	27
Figure 3-3	Browns Ferry Nuclear Plant, Plant Manager	28
Figure 3-4	Sequoyah Nuclear Plant, Site Vice President	36
Figure 3-5	Sequoyah Nuclear Plant, Plant Manager	37
Figure 3-6	Watts Bar Nuclear Plant, Site Vice President	45
Figure 3-7	Watts Bar Nuclear Plant, Plant Manager	46
Figure 4-1	TVAN, Nuclear Support	51
Figure 5-1	TVAN, Nuclear Assets Recovery & Strategic Projects	52

Topical Report TVA-NPOD89-A Rev. 14

#### **ABSTRACT**

The <u>TVA Nuclear (TVAN) Organization Description</u> (TVA-NPOD89-A) includes organization descriptions for Browns Ferry (BFN), Sequoyah (SQN), Watts Bar (WBN), and Bellefonte Nuclear (BLN) Plants. This report contains the senior management, technical support and operating organization descriptions, and organization charts that meet the "content" guidance of NRC's Regulatory Guide 1.70, <u>Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants - LWR Edition</u>, Rev. 3 (November 1978).

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 Nuclear Assurance organization and program description is contained in the TVAN Quality Assurance Plan (TVA-NQA-PLN89-A) and is not repeated herein.

Topical Report TVA-NPOD89-A Rev. 14

#### INTRODUCTION

The original purpose of the TVAN Organization Description TVA-NPOD89-A was 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, Technical Specifications, the Nuclear Quality Assurance Plan, and other documents that may refer to the TVAN organization. This topical report will be revised as necessary to reflect major organizational changes. Since this topical report encompasses multiple plants, subsequent updates to the Topical Report will be filed on a yearly basis to ensure that TVA meets the refuel cycle criterion of 10 CFR 50.71(e) for each unit at each site.

#### TENNESSEE VALLEY AUTHORITY (TVA)

#### 1.0 Corporate Organization

TVA is an agency of the federal government whose major policies, programs, and organization are currently determined by a full-time, three member Board structure. The Board members are appointed by the President of the United States and confirmed by the Senate for nine-year terms. The Board of Directors is assisted by TVA's Management 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.

Pursuant to the TVA Governance Restructuring provisions of the Consolidated Appropriation Act, 2005, TVA will transition from the current three-member Board structure to a nine-member part-time Board with a Chief Executive Officer. This change will not become effective until at least three new Board members, who are nominated by the President and confirmed by the Senate, take office.

#### 1.1 TVA Nuclear (TVAN)

The TVAN organization is responsible for nuclear plant engineering and design, construction, operation, quality assurance, and compliance with regulatory requirements. TVAN plans and manages the nuclear 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 Chief Nuclear Officer (CNO) and Executive Vice President (EVP) TVAN

The CNO & EVP 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 CNO & EVP reports directly to the President and Chief Operating Officer (COO). The President and COO reports directly to the TVA Board of Directors.

The CNO & EVP is responsible for the overall safety, efficiency, and economy of nuclear operations. The CNO & EVP establish management and operating policies and procedure's 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 this program. The CNO & EVP coordinates the activities and functions of TVAN with other TVA organizations in order to carry out TVA's corporate policy and to meet corporate goals and objectives. This position is responsible for all aspects of TVA's interface and relations with the NRC and other entities with jurisdiction over or interest in TVA's nuclear program.

The CNO & EVP 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 TVAN programs, activities, and facilities.

The CNO & EVP is assisted in carrying out these responsibilities by the Senior Vice President (SVP), Nuclear Operations; VP, BFN Unit 1 (U1); General Manager, Engineering and Technical Services; and the VP, Nuclear Support. The VP and General Managers functions are described in the following sections.

Concerns Resolution has direct access to the CNO & EVP. This provides sufficient independence and freedom to ensure that concerns are properly addressed.

Nuclear Assurance & Licensing (NA&L) has direct access to the CNO & EVP and the appropriate levels of management. This organization has sufficient independence and organizational freedom to be able to effectively ensure conformance to quality assurance program requirements.

Additionally, the VP, Operations Support (OS), provides support to the CNO & EVP in the areas of HR Operation, Safety, Technical and Organizational Effectiveness Training, Work Force Planning, Work Force Information Management, and Program Support. The VP, OS, reports to the EVP, Human Resources (HR). Functions are discussed below in paragraph 1.4.

#### 1.3 Senior Vice President (SVP), Procurement

The SVP, Procurement reports to the EVP, Administration and is responsible for management of all supply chain activities to TVA.

#### 1.4 General Managers (GM), Materials Management Services and Contracts

The GM, Materials Management Services and the GM, Contracts, reports directly to the Senior VP, Procurement, and reports functionally to the Site VP. These managers provide procurement, contracts, and material management direction and support.

#### 1.5 Vice President (VP), Human Resource (HR) Operations Support (OS)

The VP, HR OS, reports to the EVP, HR, and is responsible for the general management of HR Operations, Safety, Technical Training, Shared Resources, Work Force Planning, Work Force Information Management, and Program Support for these activities. The VP, HR OS, has seven principal reports and administers responsibilities through them to support TVAN. These principal reports are as follows:

Topical Report TVA-NPOD89-A Rev. 14

- o HR Operations Senior Manager
- o COO Safety Senior Manager
- Employee Technical Training and Organizational Effectiveness Senior Manager
- Shared Resources Senior Manager
- Work Force Planning Manager
- Work Force Information Management Manager
- o Program Support

See Figure 1-4 for the HR OS organization chart.

#### 1.5.1 Human Resource (HR) Operations Senior Manager

The HR Operations Senior Manager leads a strategic and consolidated HR Program delivery service for the two major COO organizations - TVAN and the Fossil Power Group. This manager is responsible for developing, coordinating, directing, and managing a viable HR program for these organizations. This manager implements these services for TVAN through four lead HR consultants, one for each nuclear site and one for corporate, who maintain a staff providing HR services including compensation, staffing, employee relations, benefits, manpower planning, and Equal Employment Opportunity/Affirmative Actions Programs.

In conjunction with the Work Force Planning Manager, the senior manager is responsible for managing the work force planning function to ensure proper staffing and skill requirements to meet business needs. This manager is also responsible for: (1) ensuring an active succession planning process is in place, (2) continually monitoring and making strategic recommendations for replacement planning, and (3) ensuring development activities are identified for progression candidates' needs. In addition, this manager develops and implements a vision for cultural change at respective site levels in support of the TVAN Vision and Business Plan. This manager also directs the development and implementation of programs to ensure fair treatment of employees to support the desired performance changes as well as regulatory or legal requirements. This position ensures employees' concerns and complaints are addressed in a timely fashion while administering employee relations program (positive discipline, work policies, etc.).

#### 1.5.2 COO Safety Senior Manager

The COO Safety Senior Manager manages, directs, and designs strategic direction of health and safety processes for the COO organization. This manager implements these functions through four regional COO Safety Managers who maintain staffs which support the manager in directing activities to ensure the effectiveness of TVAN's Industrial Safety Program. These positions are responsible for

implementing regulatory requirements and commitments applicable to the program, conducting accident investigations, program evaluations, implementation of policy, performance assessments and reporting, and providing and documenting training for nuclear personnel.

# 1.5.3 <u>Employee Technical Training and Organizational Effectiveness</u> (ETT&OE) Senior Manager

The ETT&OE Senior Manager is responsible for sharing best practices and standardization of training processes across TVA and for providing interventions that increase organizational effectiveness. Specific TVAN training functions are described in respective sections of this report for each site. This manager is also responsible for providing performance consulting that is both proactive and targeted to specific workforce/organization performance gaps. Performance consultants works with line organizations and the lead HR consultants to identify workforce/organization performance gaps; recommend business-aligned education, training, cultural, or other HR solutions; and monitor/measure the impact of those interventions on organizational performance.

#### 1.5.4 Shared Resources Senior Manager

The Shared Resources Senior Manager is responsible for companywide recruiting, external hiring, new employee orientation, non-nuclear fitness for duty, occupational health, and workers' compensation. Department managers implement these functions.

#### 1.5.5 Work Force Planning Manager

The Work Force Planning Manager manages the work force planning process. In conjunction with the Lead HR consultants, this manager establishes process standards for assessing business and customer needs, forecasting recruitment needs, profiling staffing availability, trending and analyzing data, and analyzing labor costs to support line managers in decision making.

#### 1.5.6 Work Force Information Management Manager

The Work Force Information Management Manager is responsible for defining the standards for information management flow and reporting. Staff provides support for processing HR transactions.

#### 1.6 Vice President (VP), BFN U1 Restart

The VP, BFN U1 Restart, reports directly to the CNO & EVP. This VP provides general management and oversight of all activities for the BFN U1 restart including engineering, modifications, operations, maintenance, site support, operations and maintenance recovery support, and training, to ensure

Topical Report TVA-NPOD89-A Rev. 14

safe and efficient recovery of the BFN U1. He/she also ensures thorough and complete coordination and integration with the BFN operating units in compliance with TVAN policies and procedures, plant technical specifications, and federal, state, and local regulations. This VP has five principal reports and administers responsibilities through them. These reports are:

BFN U1 Plant Restart Manager
Engineering Restart Manager
Maintenance and Modifications Restart Manager
Cost and Project Management Restart Manager
Project Support Restart Manager

The Site Nuclear Assurance (NA) and Site Licensing and Industry Affairs Managers have a functional reporting relationship to the VP, BFN U1 Restart. See Figure 1-3 for the BFN U1 Restart organization chart.

#### 1.6.1 BFN U1 Plant Restart Manager

The BFN U1 Plant Restart Manager is responsible for managing the BFN U1 restart activities including system turnover, operational readiness, and radiation controls. The U1 Plant Restart Manager ensures efficient integration and coordination with the BFN operating units in compliance with TVAN policies and procedures, plant technical specifications, and federal, state and local regulations. Manages restart activities to avoid adverse impacts on the operating units.

#### 1.6.2 Engineering Restart Manager

The Engineering Restart Manager is designated as the design authority for U1 restart activities. This manager is responsible for management of the BFN U1 Restart project to provide engineering for the establishment of the design basis, analytical methods, engineering design, systems engineering, restart test, technical support, components test and inspection functions. Specifically, this manager is responsible for managing activities necessary for design basis reconciliation, design criteria development, analytical basis/restart programs developed and worked to closure, within budget, on schedule, in accordance with federal and state regulations and TVA policies and procedures, and in a manner to maintain technical integrity and fidelity with BFN U2 and U3.

#### 1.6.3 Maintenance and Modifications Restart Manager

The Maintenance and Modifications Restart Manager is responsible for managing the BFN U1 Maintenance and Modifications organization to provide modifications, facilities, predictive, corrective, and preventive maintenance technical support to ensure safe and efficient restart of BFN U1 in accordance with TVAN policies and procedures, plant technical specifications, and federal, state, and local regulations.

#### 1.6.4 Cost and Project Management Restart Manager

The Cost and Project Management Restart Manager is responsible for managing the development of schedules, performance analysis, budget, project management, plant interfaces, and accounting services at the site to support the BFN U1 Restart activities, ensuring that managed activities are conducted in accordance with all applicable TVA policies, programs, and procedures, and federal, state, and local regulations.

#### 1.6.5 Project Support Restart Manager

The Project Support Manager Restart is responsible for establishing and managing all project support and technical services for the BFN U1 Restart. This includes drawing improvement and Cad drafting, engineering records, administration support/Corrective Action Program (CAP)/Self Assessment Program/Excellence In Performance, integration task management, methods/processes/procedures development and maintenance, Information Services, and acquisition and inventory/contracts management. This manager ensures that managed activities are conducted in accordance with regulatory requirements and TVA policies and procedures.

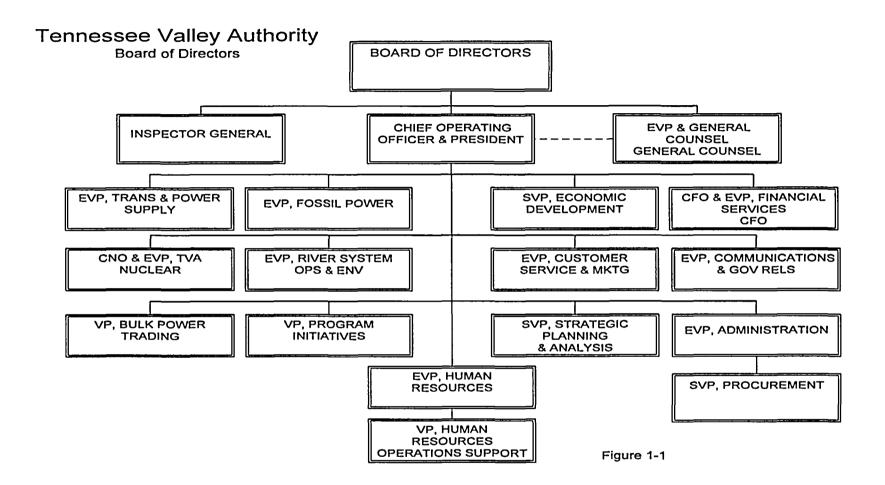
#### 1.6.6 Site Nuclear Assurance (NA)

The Manager, Site NA, provides oversight of quality activities associated with the operation of BFN. Responsibilities are described in detail in TVA's Nuclear Quality Assurance Plan (TVA-NQA-PLN89-A). This position reports to the Manager, NA&L (Corporate).

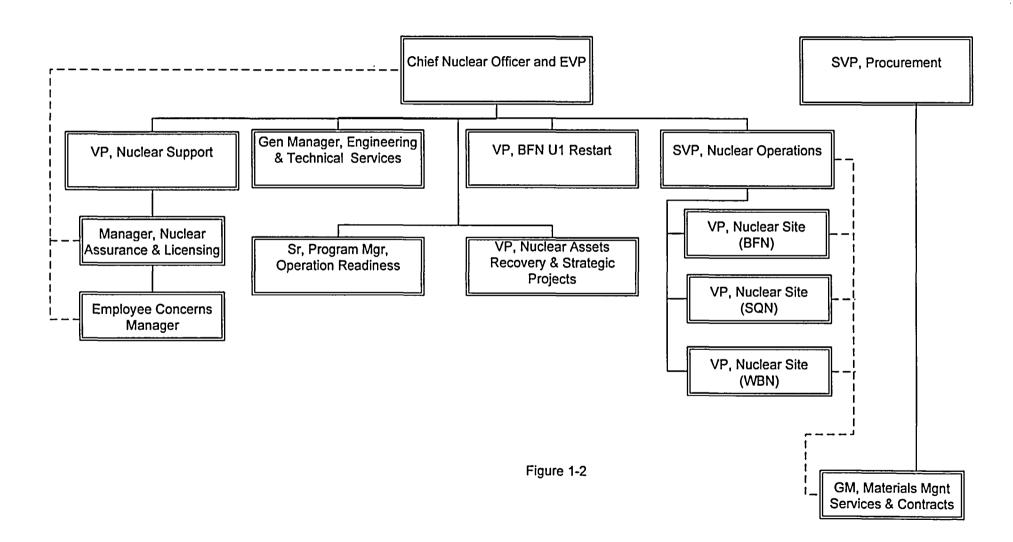
#### 1.6.7 BFN Site Licensing and Industry Affairs

The Manager, BFN Site Licensing and Industry Affairs, provides licensing services associated with the operation of BFN. This position serves as the primary interface with the NRC for site-related matters. This position reports to the Manager, NA&L (Corporate).

This manager is responsible for developing the vision and strategy for the site in the areas of the NRC, Institute of Nuclear Power Operations (INPO), Nuclear Energy Institute (NEI), and other industry interfaces. This manager is also responsible for managing the site Operating Experience Review Program and ensuring that the technical, programmatic evaluations, and in-depth analyses of in-house occurrences at TVA facilities and other industry sites which impact nuclear safety and reliability are completed and addressed as appropriate to prevent the recurrence of events.



Chief Nuclear Officer



Browns Ferry U1 Restart

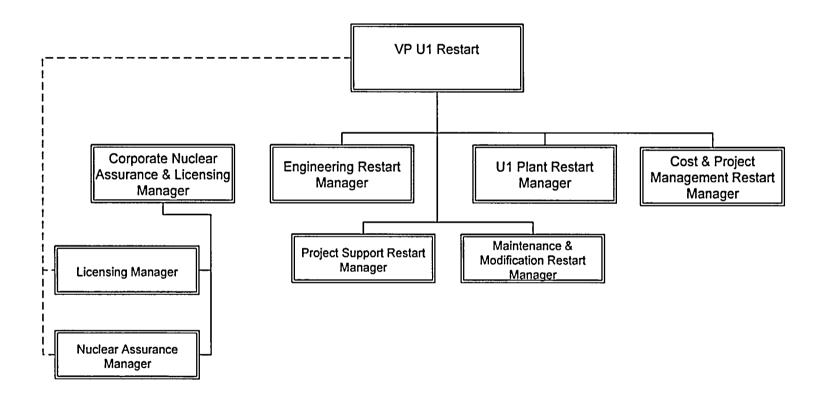
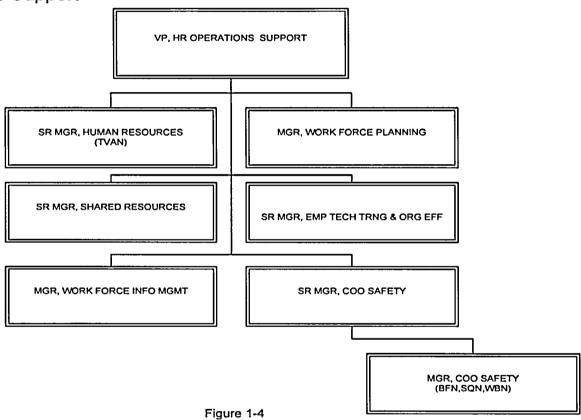


Figure 1-3

HR Operations Support



#### ENGINEERING AND TECHNICAL SERVICES

#### 2.0 General Manager (GM), Engineering and Technical Services (E&TS)

The GM, E&TS, reports directly to the CNO & EVP and is the TVAN design authority responsible for establishing and directing all plant support activities for TVAN. Primary responsibilities include maintaining the site design basis, plant configuration control, and allocating the design margins on safety-related systems. The GM, E&TS authorizes design activities necessary to ensure plant design basis is maintained and ensures the program is managed in an effective and efficient manner. The GM, E&TS also Implements technical and design authority requirements and orders through the site engineering managers. This manager ensures activities are conducted in accordance with appropriate regulations and TVA policies and procedures in a manner to maintain technical integrity of TVA facilities, and to safeguard the health and safety of the general public, the environment, and TVA employees.

The GM, E&TS, has seven principal reports and administers responsibilities through them. These principal reports are as follows:

Manager, Nuclear Engineering

Manager, Civil Engineering

Manager, Mechanical/Nuclear Engineering

Manager, Electrical/Instrumentation and Control (I&C) Engineering

Manager, Nuclear Materials Technology & Codes

Manager, Inspection Services Manager, Nuclear Fuel Design

See Figure 2-1 for the E&TS organization chart.

#### 2.1 Manager, Nuclear Engineering (NE)

The Manager, NE, is responsible for managing the activities of the nuclear engineering services for TVAN facilities ensuring that managed activities are conducted in accordance with appropriate regulations, TVA policies and procedures, and in a manner to maintain technical integrity of TVAN's facilities and to safeguard the health and safety of the general public, the environment, and TVA employees. This manager is the design basis authority for all TVAN sites and is responsible for the following functions:

- A. Configuration Management
- B. Design Change Control
- C. 10CFR50.59 Evaluations

- D. Design Input Control
- E. Design Output Control
- F. Design Verification
- G. Calculation Control
- H. Use and Control of Design Standards and Guides
- I. Equipment Reliability and Performance Programs
- J. Site Support

In addition to implementing the key functions listed above, the Site Engineering Manager is also responsible for the following key site program elements:

- A. System Health Monitoring and Equipment History and Trending
- B. Support for Maintenance: Surveillance Testing and Maintenance Rule Monitoring
- C. Technical Evaluations for Procurement of Materials and Services
- D. Probabilistic Safety Assessment
- E. Support for Testing: Post-Modification, Component and System
- F. ASME Section XI Program Support and Interface with Authorized Inspection Agency
- G. Environmental and Seismic/Structural Qualification
- H. Maintain Corrosion Control Program
- I. Functional Evaluations
- J. Evaluate industry operating experiences and maintain participation in related industry programs which benefit multiple sites
- K. Review final or updated safety analysis report and technical specification changes

#### 2.2 Manager, Civil Engineering

The Manager, Civil Engineering, manages the activities of Civil, Engineering Mechanics, and Metallurgical organizations to provide engineering services to TVA nuclear facilities. The primary responsibility is to maintain the site(s) design basis, plant configuration control, and allocate design margins on safety-related structure, system and components; ensure activities are conducted in accordance with appropriate regulations and TVA policies and procedures in a manner to maintain technical integrity of TVA's facilities; and to safeguard the health and safety of the general public, environment, and TVA employees.

#### 2.3 Manager, Mechanical/Nuclear Engineering

The Manager, Mechanical Engineering, manages the activities of the Mechanical/Nuclear organization to provide engineering services to the TVA nuclear facilities. This position ensures managed activities are conducted in accordance with appropriate regulations and TVA policies and procedures, in a manner to maintain technical integrity of TVA facilities, and to safeguard the health and safety of the general public, the environment, and TVA employees. Primary responsibility is to maintain the site design basis, plant configuration control, and allocate the design margins on safety-related systems. The position manages design activities necessary to ensure plant design basis is maintained and ensures the nuclear and mechanical program proceeds in an effective and efficient manner.

#### 2.4 Manager, Electrical/Instrumentation and Control Engineering (I&C)

The Manager, Electrical/I&C Engineering, manages the activities of the Electrical/I&C Engineering Departments to provide engineering services for TVA nuclear facilities to include the Electrical and I&C functions, ensuring that managed activities are conducted in accordance with appropriate regulations and TVA policies and procedures and in a manner to maintain technical integrity of TVA's facilities and to safeguard the health and safety of the general public, the environment, and TVA employees.

#### 2.5 Manager, Nuclear Materials Technology & Codes

The Manager, Nuclear Materials Technology & Codes, directs and manages a dedicated technical group that develops strategic plans for addressing materials degradation. This group will focus on materials related issues associated with the preservation of Nuclear Steam Supply System (NSSS) and Balance of Plant components. Effective management of materials issues ensures that TVA's nuclear facilities are operated reliably, safely and efficiently in compliance with technical specifications, regulatory commitments, and within the design bases as defined in the Final Safety Analysis Report.

#### 2.6 Manager, Inspection Services

The Manager, Inspection Services, directs and manages the activities and resources of the Inspection Services organization to provide the resolution of technical problems, technical support, and requested nondestructive examination/quality control (NDE/QC) inspections of TVAN's power plants through the utilization of skilled examiners and level III overviews to ensure conformance with applicable ASME Codes, regulatory agency, and TVA guidelines and requirements. This manager provides NDE/QC technical support to address problems or special assignments such as new technical development or technology transfer. This manager also supports NDE/QC training and training development of specialized NDE/QC techniques. In addition, this manager represents TVA in NDE/QC matters with ASME, American National Standards Institute, American Welding Society, NRC, Electric Power Research Institute (EPRI), INPO, etc.

#### 2.7 Manager, Nuclear Fuel Design

The Manager, Nuclear Fuel Design, manages the Nuclear Fuel Design program to support the safe operation of TVAN facilities and directs Nuclear Core Design, Fuel Analysis and Reactor Engineering activities to support fuel utilization and reactor operation for TVA's boiling water reactor and pressurized water reactor nuclear power plants. Also, manages the highly enriched uranium (HEU) project and fuel related aspects of TVA's tritium production project.

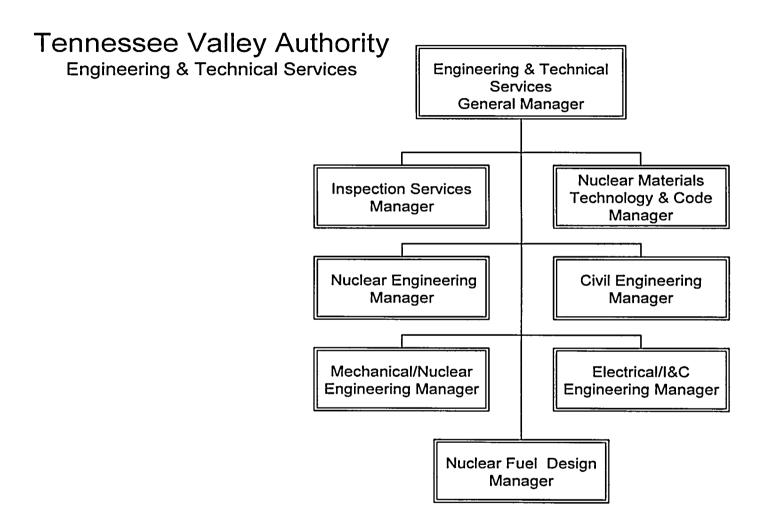


Figure 2-1

#### **NUCLEAR OPERATIONS**

#### 3.0 Senior Vice President (SVP), Nuclear Operations

The SVP, Nuclear Operations, reports to the CNO & EVP and is responsible for safe, efficient, and reliable operation of TVAN 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.

The SVP, Nuclear Operations, has nine principal reports and administers responsibilities through them. These principal reports are as follows:

Vice President, BFN
Vice President, SQN
Vice President, WBN
General Manager, Process Methods
Manager, Plant Operational Reliability
Manager, Technical Program Reliability
Manager, Computer Engineering
Manager, Operations (Corporate oversight)
Manager, Maintenance & Modifications (Corporate oversight)

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

#### 3.1 General Manager (GM), Process Methods

The GM, Process Methods, is responsible for coordination of Process Methods' efforts for the TVAN organization. The Process Methods organization's charge is to bring TVAN's focus on process improvement and peer team support to a higher level. Process Method's focus on process improvement and peer team support is a key to adding depth and vision to our process improvement initiatives.

#### 3.2 Manager, Plant Operational Reliability

The Manager, Plant Operational Reliability, is responsible for managing the TVAN Plant Operational Reliability Department to ensure critical TVAN equipment supports safe, reliable, and economic generation. This manager establishes and has chief accountability for the TVAN Equipment Reliability

Program; provides authoritative decisions and recommendations on behalf of TVAN regarding critical issues related to equipment reliability; consults and ensures resolution of issues with senior management level personnel, company officers and policy making representatives from regulatory and industry organizations. The manager is accountable for ensuring Business Plan Goals for generation, forced loss rate, and operating capacity are not impacted by equipment degradation or failure.

#### 3.3 Manager, Technical Program Reliability

The Manager, Technical Program Reliability, manages critical TVAN processes for Welding, Meteorological/Environmental, Radiological Control, Chemistry, and other areas as assigned. This manager provides leadership and direction to achieve high reliability and standardization of TVAN processes to support both outage and non-outage operations at TVAN sites; provides authoritative decisions and recommendations on behalf of TVAN regarding critical issues related to his/her area of responsibility; consults and ensures resolution of issues with senior management level personnel, company officers and policy making representatives from regulatory and industry organizations.

#### 3.4 Manager, Computer Engineering

The Manager, Computer Engineering, manages the organization which is responsible for supporting real-time computer systems for TVAN's qualityrelated programs and plant process monitoring and control applications. This support includes the definition and analysis of system requirements, the establishing of system performance criteria, system design and implementation, system integration and interfaces with plant systems and equipment, installation and testing, maintenance and modification, and configuration control activities. This manager implements a software quality assurance program which establishes the requirements and processes for the development, maintenance, and modification of real-time computer system software; establishes the infrastructure necessary to support real-time computer systems development and maintenance; establishes programmatic requirements and technical guidance for system development, modification, operation, maintenance, and configuration management functions for TVAN's real-time computer systems; establishes strategic direction and tactical plans for the application of real-time computer system technologies to TVAN's process monitoring/control

Topical Report TVA-NPOD89-A Rev. 14

systems, quality-related programs, and plant simulators. This manager provides technical oversight of TVAN's plant simulators to maintain fidelity of plant system models, simulator certification, and regulatory compliance.

#### 3.5 Manager, Maintenance and Modifications (Corporate Oversight)

Provides corporate oversight of maintenance and modification functions for fleet of nuclear power plants, ensuring that managed activities are conducted in accordance with appropriate regulations and TVA policies, programs, and procedures; plant Technical Specifications; and federal, state, and local regulations.

#### 3.6 Manager, Operations (Corporate Oversight)

Provides corporate oversight of the operations, fire protection, and work control functions for fleet of nuclear power plants in order to provide reliable and efficient generation to meet needs and safety requirements; provide for sufficient, qualified, and licensed personnel to satisfy regulatory requirements; design and implement process improvements to increase efficiency, effectiveness, and productivity while minimizing associated costs to improve competitiveness.

**Nuclear Operations** 

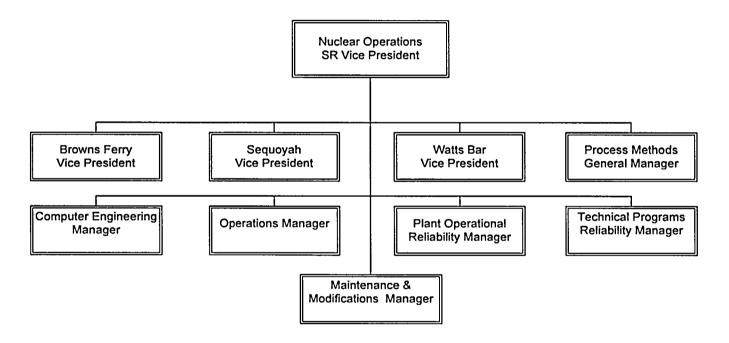


Figure 3-1

#### **BROWNS FERRY NUCLEAR PLANT (BFN)**

#### 3.7 Vice President (VP), BFN Site

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

The position has two principal direct reports and administers responsibilities through them. These principal reports are as follows:

Manager, Engineering and Site Support Plant Manager (PM)

The Site NA and Site Licensing and Industry Affairs Managers have a functional reporting relationship to the VP, BFN.

See Figure 3-2 for the BFN organization chart.

#### 3.7.1 Engineering and Site Support

The Manager, Engineering and Site Support, provides general programmatic management and direction for assigned organizations to ensure that necessary services are provided to support safe, reliable operations and are responsive to site schedules, priorities, and requirements.

This includes directing the development and management of Site Engineering, Nuclear Site Security, Site Emergency Preparedness, Project Management, Site Support, and providing technical support to Operations, Maintenance, Modifications, Radiological Control, Chemistry, and the PM, in accordance with federal, state, and local regulations.

#### a. Site Engineering

The Manager, Site Engineering, is responsible for the development and management of Engineering Design, System Engineering, Engineering Support, Technical Support, Components Test and Inspection, Document Control and Records Management functions at the site.

#### b. Project Management

The Manager, Project Management, is responsible for cost engineering functions including estimating, forecasting, trending/scope control, data analysis, and reporting. This manager is responsible for ensuring technical and programmatic cost requirements of the site organizations (including contractors), site senior management, and TVA executive management are quantified, integrated, and supported by established processes to a high degree of consistency and reliability. He/she also has responsibility for corporate employees (assigned to the site) who are responsible for the site's Information Services.

#### d. Site Support

The Manager, Site Support, directs the work of corporate employees assigned to the site who are responsible for financial activities to provide the overall accounting, budget, and business reporting processes for all areas of activity at the site. In addition, the Site Support Staff is responsible for the development, implementation, and oversight of site analysis and reporting systems to report key indicators, compile data that can be utilized to reduce costs, and increase overall site effectiveness and efficiency. Additionally, this staff is responsible for maintaining the site's CAP which identifies and corrects problems and adverse conditions in a manner consistent with the nature of the conditions and its importance to plant safety or plant reliability.

#### e. Nuclear Site Security

The Manager, Nuclear Site Security, is responsible for the management and direction of the site security program to ensure security at the nuclear site and compliance with TVA and NRC requirements.

#### f. Site Emergency Preparedness

The Manager, Site Emergency Preparedness, is responsible for ensuring safety of TVA employees and the general public in the event of an accident at the nuclear facility.

#### 3.7.2 Site Employee Concerns

Site Concerns Resolution Program provides site employees with a means for reporting their concerns to a high-level within TVA's nuclear organization if, for any reason, the employees believe that their supervisors would not properly respond to expressing concerns.

This position reports to the Manager, Employee Concerns (Corporate), which provides the Concerns Resolution Program with sufficient independence and freedom to ensure that concerns are properly addressed.

#### 3.7.3 Site Nuclear Assurance (NA)

The Manager, Site NA, provides oversight of quality activities associated with the operation of BFN. Responsibilities are described in detail in TVA's Nuclear Quality Assurance Plan (TVA-NQA-PLN89-A). This position reports to the Manager, NA&L (Corporate).

#### 3.7.4 BFN Site Licensing and Industry Affairs

The Manager, BFN Site Licensing and Industry Affairs, provides licensing services associated with the operation of BFN. This position serves as the primary interface with the NRC for site-related matters. This position reports to the Manager, NA&L (Corporate).

This manager is responsible for developing the vision and strategy for the site in the areas of the NRC, INPO, NEI, and other industry interfaces. This manager is also responsible for managing the site Operating Experience Review Program and ensuring that the technical, programmatic evaluations, and in-depth analyses of in-house occurrences at TVA facilities and other industry sites which impact nuclear safety and reliability are completed and addressed as appropriate to prevent the recurrence of events.

#### 3.7.5 Plant Manager (PM)

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 PM. The PM 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 PM appoints the chairman and the members of the Plant Operations Review Committee (PORC). The PM 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 PM administers the principal areas of responsibility through the following managers:

Manager, Maintenance and Modifications Manager, Radiological Protection Manager, Chemistry/Environmental Assistant Plant Manager (APM) Manager, Outage & Scheduling Manager, Operations Manager, Training

See Figure 3-3 for the PM's organization chart.

#### a. Maintenance and Modifications

The Manager, Maintenance and Modifications, is responsible for planning, directing, and managing the plant's maintenance program to ensure that equipment and systems are maintained in accordance with operability and reliability engineering practices and requirements. This manager 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.

This manager 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 manager is also responsible for the maintenance and testing of all in-plant radios, TI 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).

#### b. Radiological Protection

The Manager, Radiological Protection, guides programs and activities at the plant ensuring that all operations, maintenance, modifications and engineering activities are conducted in a radiologically safe manner and protect plant systems and

equipment. This includes developing, implementing, and managing the site radiological programs. This manager guides technical assistance and project management activities in support of the site consistent with regulatory requirements. This manager develops and maintains procedures and applies standards necessary for the Radiological Protection programs.

This manager also supports the site training program and provides specialized training in radiological disciplines. This manager is responsible for personnel radiation monitoring to ensure compliance with all applicable requirements. This manager is responsible for maintaining continuing records of personnel exposure, plant radiation and contamination levels. In addition, this manager is responsible for implementation of effective site programs for radiochemistry and radiological compliance.

#### c. Chemistry/Environmental

The Manager, Chemistry/Environmental, guides programs and activities at the plant ensuring that all operations, maintenance, modifications, and engineering activities are conducted in a manner consistent with applicable federal and state regulations and protect the plant systems, equipment, and the environment.

#### d. Assistant Plant Manager (APM)

The APM assumes full responsibility and accountability of the PM in the PM's absence. This is a developmental position for progression to PM. There may be more than one APM position with any of the PM departments under their supervision.

#### e. Outage and Scheduling

The Manager, Outage and Scheduling, has overall responsibility for outage planning, coordination, and monitoring. This manager plans all outages, establishes work priorities, and coordinates shift turnover. This manager is responsible for managing plant scheduling processes ensuring efficient, effective management of the work control function which is the basis of the site's schedule.

#### f. Operations

The Manager, Operations, 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, approval 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., Manager, Operations).

The Manager, Operations, has two principal reports:

Superintendent, Operations
Superintendent, Operations Support (OS)

#### Superintendent, Operations

The Superintendent, Operations, is responsible for all plant operations. The superintendent, through the shift managers, 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 consists of the shift manager (SRO), unit supervisor (SRO), unit operators (RO), and assistant unit operators (AUOs). Additional licensed and non-licensed personnel are required for multi-unit operation. Additional operators are assigned as required by the Technical Specifications to meet the requirements of 10 CFR 50.54(m)(2). Plant management and technical support personnel will be present or on call at all times.

#### Superintendent, Operations Support (OS)

The Superintendent, OS, is responsible for budget preparation, training oversight, performance monitoring, and assists the Manager, Operations, in overall program direction for operations. The Supervisor, Fire Operations, with the overall responsibility for the Fire Protection Program, reports to the Superintendent, OS.

#### g. Training

The Manager, Training, directs the planning, development, implementation, and evaluation of federally-regulated and nationally-accredited training programs to ensure sufficient qualified personnel to operate, maintain, and modify the nuclear power plant. The nuclear industry's training organization, the National Academy for Nuclear Training, has administrative and technical support provided by INPO, the industry's self-governance organization. Through the Academy's National Nuclear Accrediting Board, all 12 applicable TVAN training programs in operations, maintenance, and technical training have been accredited. Generally, maintaining Academy accreditation is sufficient to satisfy applicable federal regulations. Even more critical than meeting external expectations is the assurance that the nuclear power plant work force has been properly trained on a task-by-task basis to perform individual and team duties in an accurate, timely, and safe manner. This position is responsible for establishing, delivering, and maintaining such performance-based personnel training programs.

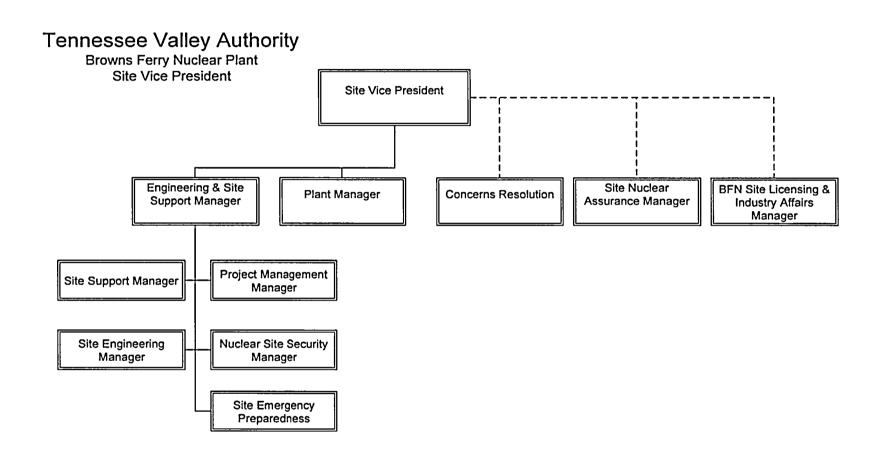


Figure 3-2

# Tennessee Valley Authority Browns Ferry Nuclear Plant

Plant Manager

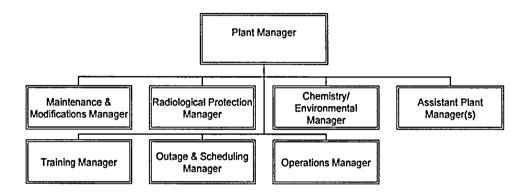


Figure 3-3

#### SEQUOYAH NUCLEAR PLANT (SQN)

#### 3.8 Vice President (VP), SQN Site

The VP, SQN, is responsible and accountable for activities at the site including operations, modifications, maintenance, support, and engineering services. This position determines the nature and extent of onsite and offsite support services required to support site operations in accordance with TVAN policy and procedures. He/she is responsible for the quality of work activities.

The VP, SQN, has three principal direct reports and administers responsibilities through them. These reports are:

Manager, Engineering and Site Support Plant Manager (PM) Manager, Steam Generator Replacement

The Site NA and Site Licensing and Industry Affairs Managers have a functional reporting relationship to the VP, SQN.

See Figure 3-4 for the SQN organization chart.

#### 3.8.1 Engineering and Site Support

The Manager, Engineering and Site Support, provides general programmatic management and direction for assigned organizations to ensure that necessary services are provided to support safe, reliable operations and are responsive to site schedules, priorities, and requirements.

This includes directing the development and management of Site Engineering, Nuclear Site Security, Site Emergency Preparedness, Project Management, Site Support, and providing technical support to Operations, Maintenance, Modifications, Radiological Control, Chemistry, and the PM, in accordance with federal, state, and local regulations.

#### a. Site Engineering

The Manager, Site Engineering, is responsible for the development and management of the Engineering Design, System Engineering, Engineering Support, Technical Support, Components Test and Inspection, Document Control, and Records Management functions at the site.

#### b. Project Management

The Manager, Project Management, is responsible for cost engineering functions including estimating, forecasting, trending/scope control, data analysis, and reporting. The Project Management Manager is responsible for ensuring technical and programmatic cost requirements of the site organizations (including contractors), site senior management, and TVA executive management are quantified, integrated, and supported by established processes to a high degree of consistency and reliability. This manager also has responsibility for corporate employees assigned to the site who are responsible for the site's Information Services.

#### c. Site Support

The Manager, Site Support, directs the work of corporate employees assigned to the site who are responsible for financial activities to provide the overall accounting, budget, and business reporting processes for all areas of activity at the site. In addition, the Site Support Staff is responsible for the development, implementation, and oversight of site analysis and reporting systems to report key indicators, compile data that can be utilized to reduce costs, and increase overall site effectiveness and efficiency. Additionally, the Site Support Staff is responsible for maintaining the site's CAP, which identifies and corrects problems and adverse conditions in a manner consistent with the nature of the conditions and its importance to plant safety or plant reliability.

#### d. Nuclear Site Security

The Manager, Nuclear Site Security, is responsible for the management and direction of the site security program to ensure security at the nuclear site and compliance with TVA and NRC requirements.

#### e. Site Emergency Preparedness

The Manager, Site Emergency Preparedness, is responsible for the site's emergency preparedness program to ensure safety of TVA employees and the general public in the event of an accident at the nuclear facility.

#### 3.8.2 Site Employee Concerns

The site representative, Concerns Resolution Program, provides site employees with a means for reporting their concerns to a high-level within TVA's nuclear organization if, for any reason, the employees believe that their supervisors would not properly respond to expressing concerns.

This position reports to the Manager, Employee Concerns (Corporate), which provides the Concerns Resolution Program with sufficient independence and freedom to ensure that concerns are properly addressed.

#### 3.8.3 Site Nuclear Assurance (NA)

The Manager, Site NA, provides oversight of quality activities associated with the operation of SQN. Responsibilities are described in detail in TVA's Nuclear Quality Assurance Plan (TVA-NQA-PLN89-A). This position reports to the Manager, NA&L (Corporate).

#### 3.8.4 SQN & WBN Site Licensing and Industry Affairs

The Manager, SQN & WBN Site Licensing and Industry Affairs, provides licensing services associated with the operation of SQN and WBN. This position serves as the primary interface with the NRC for site-related matters. This position reports to the Manager, NA&L (Corporate).

This manager is responsible for developing the vision and strategy for the site in the areas of the NRC, INPO, NEI, and other industry interfaces. This manager is also responsible for managing the site Operating Experience Review Program and ensuring that the technical, programmatic evaluations, and in-depth analyses of inhouse occurrences at TVA facilities and other industry sites which impact nuclear safety and reliability are completed and addressed as appropriate to prevent the recurrence of events.

#### 3.8.5 Plant Manager (PM)

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 this manager. He/she 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 PM appoints the chairman and the members of the PORC. The PM 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 PM administers the principal areas of responsibility through the following managers:

Manager, Maintenance and Modifications
Manager, Radiological Protection
Manager, Chemistry/Environmental
Assistant Plant Manager (APM)
Manager, Outage & Scheduling
Manager, Operations
Manager, Training

See Figure 3-5 for the PM's organization chart.

#### a. Maintenance and Modifications

The Manager, Maintenance and Modifications, is responsible for planning, directing, and managing the plant's maintenance program to ensure that equipment and systems are maintained in accordance with operability and reliability engineering practices and requirements. This manager 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.

This manager 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 manager is also responsible for the maintenance and testing of all in-plant radios, TI 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).

#### b. Radiological Protection

The Manager, Radiological Protection, guides programs and activities at the plant ensuring that all operations, maintenance, modifications and engineering activities are conducted in a radiologically safe manner and protect plant systems and

equipment. This includes developing, implementing and managing the site radiological programs. This manager guides technical assistance and project management activities in support of the site consistent with regulatory requirements.

This manager develops and maintains procedures and applies standards necessary for the radiological protection programs. This manager supports the site training program and provides specialized training in radiological disciplines. This manager is responsible for personnel radiation monitoring to ensure compliance with all applicable requirements. This manager is responsible for maintaining continuing records of personnel exposure, plant radiation and contamination levels. In addition, this manager is responsible for implementation of effective site programs for radiochemistry and radiological compliance.

#### c. Chemistry/Environmental

The Manager, Chemistry/Environmental, guides programs and activities at the plant ensuring that all operations, maintenance, modifications, and engineering activities are conducted in a manner consistent with applicable federal and state regulations and protect the plant systems, equipment, and the environment.

#### d. Assistant Plant Manager (APM)

The APM assumes full responsibility and accountability of the PM in the PM's absence. This is a developmental position for progression to PM. There may be more than one APM position with any of the PM departments under their supervision.

#### e. Outage & Scheduling

The Manager, Outage & Scheduling, has overall responsibility for outage planning, coordination, and monitoring. This manager plans all outages, establishes work priorities, and coordinates shift turnover. This manager is responsible for plant scheduling processes ensuring efficient, effective management of the work control function which is the basis of the site's schedule.

#### f. Operations

The Manager, Operations, 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, approval 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., Manager, Operations).

The Manager, Operations, has two principal reports:

Superintendent, Operations
Superintendent, Operations Support (OS)

#### Superintendent, Operations

The Superintendent, Operations, 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 consists of the shift manager (SRO), unit supervisor (SRO), unit operators (RO), and nuclear assistant unit operators (NAUOs). Additional licensed and non-licensed personnel are required for two-unit operation. Additional operators are assigned as required by the Technical Specifications to meet the requirements of 10 CFR 50.54(m)(2). Plant management and technical support personnel will be present or on call at all times.

#### Superintendent, Operations Support (OS)

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

#### g. Training

The Manager, Training, directs the planning, development, implementation, and evaluation of federally-regulated and nationally-accredited training programs to ensure sufficient qualified personnel to operate, maintain, and modify the nuclear power plant. The nuclear industry's training organization, the

Topical Report TVA-NPOD89-A Rev. 14

National Academy for Nuclear Training, is managed by INPO, the industry's self-governance organization. Through the Academy's National Nuclear Accrediting Board, all 12 applicable TVAN training programs in operations, maintenance, and technical training have been accredited. Generally, maintaining Academy accreditation is sufficient to satisfy applicable federal regulations. Even more critical than meeting external expectations is the assurance that the nuclear power plant work force has been properly trained on a task-by-task basis to perform individual and team duties in an accurate, timely, and safe manner. This position is responsible for establishing, delivering, and maintaining such performance-based personnel training programs.

#### 3.8.6 Manager, Steam Generator Replacement

The Manager, Steam Generator Replacement, is responsible for managing the purchase, fabrication/ manufacturing, and installation of the steam generators at SQN and WBN, ensuring that managed activities are conducted in accordance with appropriate regulations and TVA policies, programs, and procedures; plant technical specifications; and federal, state, and local regulations. This position is responsible for steam generator replacement for two nuclear sites, ensuring consistency and application of lessons learned from one project/site to another.

Sequoyah Nuclear Plant Site Vice President

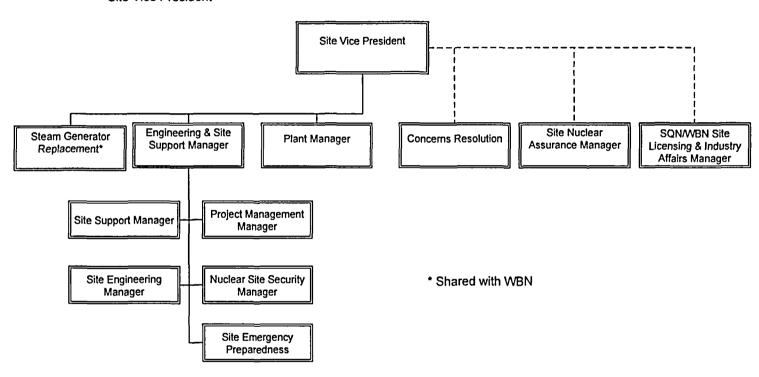


Figure 3-4

Sequoyah Nuclear Plant Plant Manager

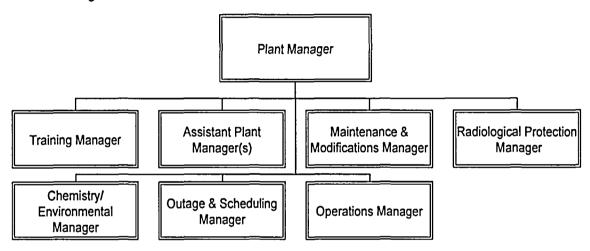


Figure 3-5

#### WATTS BAR NUCLEAR PLANT (WBN)

#### 3.9 Vice President (VP), WBN

The VP, WBN, is responsible and accountable for activities at the site, including U1 operations, modifications, maintenance, support, engineering services, and Unit 2 construction permit activities. This position determines the nature and extent of onsite and offsite support services required to support site operations and activities in accordance with TVAN policy and procedures. The Vice President, WBN, is responsible for the quality of work activities.

The VP, WBN, has two principal direct reports and administers responsibilities through them. These reports are:

Manager, Engineering and Site Support Plant Manager (PM)

The Site NA and Site Licensing and Industry Affairs Managers have a functional reporting relationship to the VP, WBN.

See Figure 3-6 for the WBN organization chart.

#### 3.9.1 Engineering and Site Support

The Manager, Engineering and Site Support, provides general programmatic management and direction for assigned organizations to ensure that necessary services are provided to support safe, reliable operations and are responsive to site schedules, priorities, and requirements.

This includes directing the development and management of Site Engineering, Security, Emergency Preparedness, Project Management, Site Support and providing technical support to Operations, Maintenance, Modifications, Radiological Control, Chemistry, and the PM, in accordance with all federal, state, and local regulations.

#### a. Site Engineering

The Manager, Site Engineering, is responsible for the development and management of the Engineering Design, System Engineering, Engineering Support, Technical Support,

Components Test and Inspection, Document Control and Records Management functions at the site.

#### b. Project Management

The Manager, Project Management, is responsible for cost engineering functions including estimating, forecasting, trending/scope control, data analysis, and reporting. This manager is responsible for ensuring technical and programmatic cost requirements of the site organizations (including contractors), site senior management, and TVA executive management are quantified, integrated, and supported by established processes to a high degree of consistency and reliability. He/she also has responsibility for corporate employees assigned to the site who are responsible for the site's Information Services.

#### c. Site Support

The Manager, Site Support, directs the work of Corporate employees assigned to the site who are responsible for financial activities to provide the overall accounting, budget, and business reporting processes for all areas of activity at the site. In addition, the Site Support Staff is responsible for the development, implementation, and oversight of site analysis and reporting systems to report key indicators, compile data that can be utilized to reduce costs, and increase overall site effectiveness and efficiency. Additionally, the Site Support Staff is responsible for maintaining the site's CAP, which identifies and corrects problems and adverse conditions in a manner consistent with the nature of the conditions and its importance to plant safety or plant reliability.

#### d. Nuclear Site Security

The Manager, Nuclear Site Security, is responsible for the management and direction of the site security program to ensure security at the nuclear site and compliance with TVA and NRC requirements.

#### e. Site Emergency Preparedness

The Manager, Site Emergency Preparedness, is responsible for the site's Emergency Preparedness Program to ensure safety of TVA employees and the general public in the event of an accident at the nuclear facility.

#### 3.9.2 Site Employee Concerns

The site representative, Concerns Resolution Program, provides site employees with a means for reporting their concerns to a high-level within TVA's nuclear organization if, for any reason, the employees believe that their supervisors would not properly respond to expressing concerns.

This position reports to the Manager, Employee Concerns, (Corporate) providing the Concerns Resolution Program sufficient independence and freedom to ensure that concerns are properly addressed.

#### 3.9.3 Site Nuclear Assurance (NA)

The Manager, Site NA, provides oversight of quality activities associated with the operation of WBN. Responsibilities are described in detail in TVA's Nuclear Quality Assurance Plan (TVA-NQA-PLN89-A). This position reports to the Manager, NA&L (Corporate).

#### 3.9.4 SQN & WBN Licensing and Industry Affairs

The Manager, SQN & WBN Licensing and Industry Affairs, provides licensing services associated with the operation of SQN and WBN. This position serves as the primary interface with the NRC for site-related matters. This position reports to the Manager, NA&L (Corporate).

This manager is responsible for developing the vision and strategy for the site in the areas of the NRC, INPO, NEI, and other industry interfaces such as Westinghouse Owners Group. This manager is also responsible for managing the site Operating Experience Review Program and ensuring that the technical, programmatic evaluations, and in-depth analyses of in-house occurrences at TVA facilities and other industry sites which impact nuclear safety and reliability are completed and addressed as appropriate to prevent the recurrence of events.

#### 3.9.5 Plant Manager (PM)

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 PM. He/she 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 PM 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 PM appoints the chairman and the members of the PORC. The PM provides operation and maintenance support to the unit.

The PM administers the principal areas of responsibility through the following managers:

Manager, Maintenance and Modifications Manager, Radiological Protection Manager, Chemistry/Environmental Assistant Plant Manager, (APM) Manager, Outage and Scheduling Manager, Operations Manager, Training

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

#### a. Maintenance and Modifications

The Manager, Maintenance and Modifications, is responsible for planning, directing, and managing the plant's maintenance program to ensure that equipment and systems are maintained in accordance with operability and reliability engineering practices and requirements. This manager 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.

This manager 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 manager is also responsible for the maintenance and testing of all in-plant radios, TI 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).

#### b. Radiological Protection

The Manager, Radiological Protection, 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. This includes developing, implementing, and managing the site radiological programs. This manager guides technical assistance and project management activities in support of the site consistent with regulatory requirements. This manager develops and maintains procedures and applies standards necessary for the radiological programs.

This manager supports the site training program and provides specialized training in radiological disciplines. This manager is responsible for personnel radiation monitoring to ensure compliance with all applicable requirements. He/she is responsible for maintaining continuing records of personnel exposure, plant radiation and contamination levels. In addition, this manager is responsible for implementation of effective site programs for radiochemistry and radiological compliance.

#### c. Chemistry/Environmental

The Manager, Chemistry/Environmental, guides programs and activities at the plant ensuring that all operations, maintenance, modifications, and engineering activities are conducted in a manner consistent with applicable federal and state regulations and protect the plant systems, equipment, and the environment.

#### d. Assistant Plant Manager (APM)

The APM assumes the full responsibilities and accountabilities of the PM in the PM's absence. These are developmental positions for the progression to PM. There may be more than one APM position with any of the above PM departments under their supervision.

#### e. Outage & Scheduling

The Manager, Outage & Scheduling, has overall responsibility for outage planning, coordination, and monitoring. This manager plans all outages, establishes work priorities, and coordinates shift turnover. This manager is responsible for managing plant

scheduling processes ensuring efficient, effective management of the work control function which is the basis of the site's schedule.

#### f. Operations

The Manager, Operations, 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, approval 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., Manager, Operations). This position serves as Chairman of the PORC.

The Manager, Operations, has two principal reports:

Superintendent, Operations
Superintendent, Operations Support (OS)

#### Superintendent, Operations

The Superintendent, Operations, is responsible for plant operations. The superintendent, through the shift managers, 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 manager (SRO), unit supervisor (SRO), nuclear unit operators (SROs), and assistant unit operators (AUOs). Additional operators are assigned as required by the Technical Specifications to meet the requirements of 10 CFR 50.54(m)(2). Plant management and technical support personnel will be present or on call at all times.

#### Superintendent, Operations Support (OS)

The Superintendent, OS, is responsible for budget preparation, training oversight, performance monitoring, and assists the Manager, Operations, in overall program direction for operations.

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

#### g. Training

The Manager, Training, directs the planning, development, implementation, and evaluation of federally regulated and nationally accredited training programs to ensure sufficient qualified personnel to operate, maintain, and modify the nuclear power plant. The nuclear industry's training organization, the National Academy for Nuclear Training, is managed by INPO, the industry's self-governance organization. Through the Academy's National Nuclear Accrediting Board, all 12 applicable TVAN training programs in operations, maintenance, and technical training have been accredited. Generally, maintaining Academy accreditation is sufficient to satisfy applicable federal regulations. Even more critical than meeting external expectations is the assurance that the nuclear power plant work force has been properly trained on a taskby-task basis to perform individual and team duties in an accurate, timely, and safe manner. This position is responsible for establishing, delivering, and maintaining such performance-based personnel training programs.

#### 3.9.6 Manager, Steam Generator Replacement

The Manager, Steam Generator Replacement, is responsible for managing the purchase, fabrication/ manufacturing, and installation of the steam generators at SQN and WBN, ensuring that managed activities are conducted in accordance with appropriate regulations and TVA policies, programs, and procedures; plant technical specifications; and federal, state, and local regulations. This position is responsible for steam generator replacement for two nuclear sites, ensuring consistency and application of lessons learned from one project/site to another.

Watts Bar Nuclear Plant Site Vice President

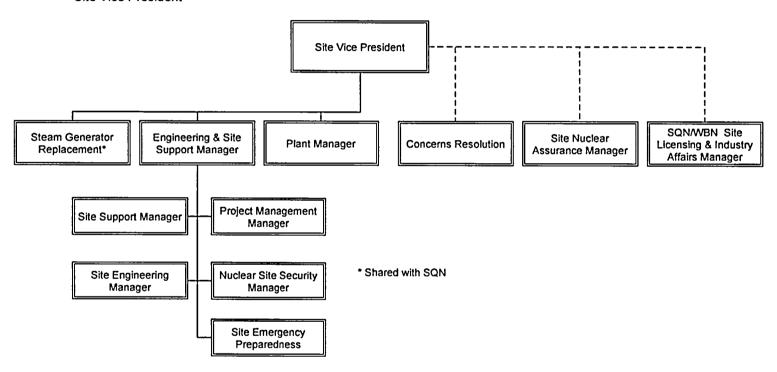


Figure 3-6

Watts Bar Nuclear Plant Plant Manager

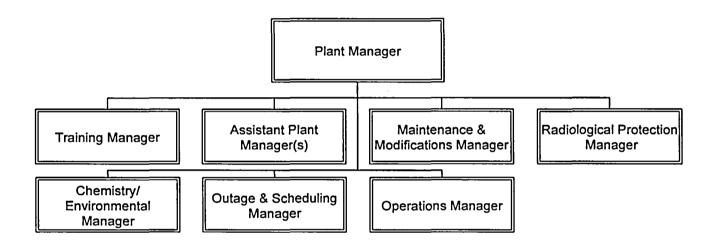


Figure 3-7

#### NUCLEAR SUPPORT

#### 4.0 Vice President (VP), Nuclear Support (NS)

The VP, NS, reports to the CNO & EVP and is responsible for NA&L, including the general management of the Concerns Resolution Program; Business & Project Services, including tritium production, radiation waste/monitoring, and business analysis services; emergency services; and nuclear medical staff physician.

This VP has four principal reports and administers responsibilities through them. These principal reports are as follows:

General Manager, Business & Project Services General Manager, Emergency Services General Manager, NA&L Senior Physician

See Figure 4-1 for the Nuclear Support Organization

#### 4.1 Manager, Business & Project Services

The Manager, Business & Project Services, provides for the general management, policy guidance and oversight of TVAN business and project services, business planning and financial management services, project management controls for capital projects, radwaste and environmental protection services, and environmental radiation monitoring and instrumentation support services. This manager is responsible for an organization that implements strong project management concepts for TVAN, manages assigned corporate nuclear projects, including the site master plan projects, develops project management standards for the entire Project Management organization, and ensures that these standards are implemented throughout the Project Management organization. This position ensures that a program is developed and implemented to prioritize the operating nuclear plant capital projects and site master plan projects. This manager 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 and submits the quarterly Trend Report to the EVP & CNO that provides system performance and status.

#### 4.2 Manager, Emergency Services

The Manager, Emergency Services, directs the management of the organization which provides technical direction, support, and oversight of TVAN's Security and Emergency Preparedness Programs, as well as directly implementing responsible offsite activities in support of these programs. This manager interfaces with industry and regulatory groups regarding program activities and issues; interfaces with state and local governments that provide support to and/or have a vested interest in TVAN's Emergency Services Program; ensures that managed activities are conducted in accordance with appropriate regulations, TVA commitments, policies, and procedures; and provides overall programmatic development and implementation for the Fitness-for-Duty Program and security background checks.

#### 4.3 Manager, Nuclear Assurance & Licensing (NA&L)

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

- A. Administering nuclear assurance responsibilities through the Corporate NA Manager, Site NA Managers, BFN U1 Restart NA Manager, and the Evaluation and Analysis Group
- B. Managing the development and maintenance of the TVA nuclear assurance programs to ensure compliance with regulations, commitments, and policies, including those NA programs that govern activities performed by Site NA organization personnel
- C. Managing TVA's review and qualification of suppliers to ensure final acceptance of all "safety-related material" for the nuclear plants to comply with applicable specifications and requirements
- D. Serving as the principal interface with the NRC: providing information and interpretations concerning regulatory requirements; directing the preparation for and conduct of NRC audits, inspections, and meetings; ensuring the interpretation or resolution of NRC requests or imposed regulatory changes; and ensuring compliance with NRC reporting requirements
- E. Administering nuclear licensing responsibilities through the Corporate Nuclear Licensing and Industry Affairs Manager and the Site Licensing and Industry Affairs Managers

- F. Managing the coordination of the TVAN interface with nuclear industry groups including INPO, NEI, NSSS owners groups, operating experience review, and other nuclear industry-wide programs
- G. Administering the Concerns Resolution Program responsibilities through full-time site representatives at the nuclear sites. This manager ensures that the Concerns Resolution Program provides employees with a means for reporting their concerns to a high-level within TVAN's organization if, for any reason, the employees believe that their supervisors would not properly respond to expressing concerns. Concerns Resolution Program representatives have direct access to the CNO & EVP on the Concerns Resolution Program. This provides the Concerns Resolution Program sufficient independence and freedom to ensure that concerns are properly addressed.
- H. Serving as the Chairman of the Nuclear Safety Review Board (NSRB) and is responsible for developing and implementing procedures consistent with TVAN policy and NRC requirements to conduct independent nuclear safety assessments and reviews of TVA's nuclear plants. Individual safety review boards are in place for the BFN, SQN, and WBN. These boards are composed of senior TVA managers and advisors (industry consultants) to the Chairman of the TVA Board. The Chairman directs independent safety reviews of TVA's nuclear plants and manages the activities of the NSRB. The functions of the NSRB are delineated in TVA Nuclear Quality Assurance Plan (TVA-NQA-PLN89-A). 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.

#### NUCLEAR ASSETS RECOVERY & STRATEGIC PROJECTS

5.0 Vice President (VP), Nuclear Assets Recovery & Strategic Projects

The VP, Nuclear Assets & Strategic Projects reports to the CNO & EVP and is responsible for BLN Maintenance, Nuclear Fuel Supply and Disposal Projects, and Strategic Project Management.

#### 5.1 Manager, Bellefonte Nuclear Plant (BLN) Maintenance

The Manager, BLN Nuclear Plant Maintenance, provides general management and oversight of all activities at the site, ensuring that the managed and/or contracted activities are conducted according to applicable TVA policies, programs, procedures, technical specifications, and federal, state, and local regulations.

Organizational relationships and responsibilities reported herein reflect administrative structures. Functional relationships and responsibilities may vary from this report. Additionally, due to the status of BLN, some management functions may be combined.

Note: BLN is currently in a deferral status, i.e., there are no on-going plant completion activities. Major attention is placed on site/equipment preservation. Any NA and/or license support is performed by the Corporate office.

#### 5.2 Manager, Nuclear Fuel Supply & Disposal, Projects

The Manager, Nuclear Fuel Supply & Disposal, Projects is accountable for managing and directing the technical, commercial, and administrative functions of the nuclear fuel supply, including development of energy requirements, monitoring the nuclear fuel market, developing TVAN's nuclear fuel supply strategy, develops long-range financial forecasts, maintains relationships with fuel supply vendors, administering contracts (e.g., delivery requirements and schedules), and processing invoices for fuel supply transactions. Manages the Spent Fuel Disposal contract with Department of Energy (DOE) and oversees payments to DOE. Manages and directs activities to provide for long-term onsite storage and ultimate disposal of spent nuclear fuel assemblies and components.

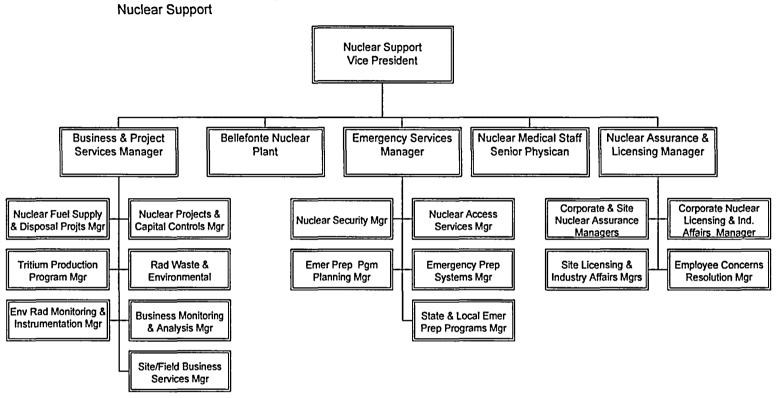


Figure 4-1

, ,, ,

# **Tennessee Valley Authority**

Nuclear Assets Recovery & Strategic Projects

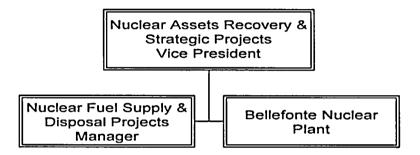


Figure 5-1