



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

September 5, 2013

10 CFR 50.4  
10 CFR 50.71(e)

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

Browns Ferry Nuclear Plant, Units 1, 2, and 3  
Renewed Facility Operating License Nos. DPR-33, DPR-52, and DPR-68  
NRC Docket Nos. 50-259, 50-260, and 50-296

Sequoyah Nuclear Plant, Units 1 and 2  
Facility Operating License Nos. DPR-77 and DPR-79  
NRC Docket Nos. 50-327 and 50-328

Watts Bar Nuclear Plant, Unit 1  
Facility Operating License No. NPF-90  
NRC Docket No. 50-390

Watts Bar Nuclear Plant, Unit 2  
NRC Docket No. 50-391

**Subject: Organization Topical Report, TVA-NPOD89-A**

**Reference:** Tennessee Valley Authority letter to NRC, "TVA Organization Topical Report, TVA-NPOD89-A," dated August 31, 2011

In accordance with Title 10, Code of Federal Regulations (10 CFR) 50.71 (e), "Maintenance of records, making of reports," paragraph (e), enclosed is Revision 20 of Tennessee Valley Authority (TVA) Organization Topical Report (TVA-NPOD89-A). TVA's Organization Topical Report provides organizational descriptions for the TVA Nuclear Power Group, including Browns Ferry Nuclear Plant, Sequoyah Nuclear Plant, Watts Bar Nuclear Plant, and the TVA Nuclear Construction organization. This report is referenced in the Updated Final Safety Analysis Reports (UFSARs) for each of TVA's operating nuclear power plants and must comply with the update submittal frequency requirements for the UFSARs. The reference

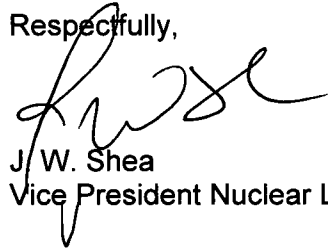
TOD  
LRL

September 5, 2013

letter provided the most recent update to the TVA Organization Topical Report on August 31, 2011. Since August 31, 2013 falls on a Saturday and the next week day, September 2, 2013, is a Federal Holiday, this report is due the next business day after August 31, 2013, i.e. September 3, 2013. Due to an administrative error, the letter was not signed until September 5, 2013. The error has been entered in the Corrective Action Program.

No new regulatory commitments are made by this letter. If you have any questions regarding this submittal, please contact Ed Schrull at (423) 751-3850.

Respectfully,



J. W. Shea  
Vice President Nuclear Licensing

Enclosure: Organization Topical Report, TVA-NPOD89-A, Revision 20

cc (Enclosure):

NRC Regional Administrator - Region II  
NRC Senior Resident Inspector - Browns Ferry Nuclear Plant  
NRC Senior Resident Inspector - Sequoyah Nuclear Plant  
NRC Senior Resident Inspector - Watts Bar Nuclear Plant, Unit 1  
NRC Senior Resident Inspector - Watts Bar Nuclear Plant, Unit 2

**Enclosure**

**Organization Topical Report  
TVA-NPOD89-A, Revision 20**

**TENNESSEE VALLEY AUTHORITY**  
**ORGANIZATION TOPICAL REPORT, TVA-NPOD89-A**  
**REVISION 20**  
**AUGUST 2013**

## 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
REVISION 15.....	June 22, 2006
REVISION 16.....	August 30, 2007
REVISION 17.....	August 29, 2008
REVISION 18.....	August 31, 2009
REVISION 19.....	August 31, 2011
REVISION 20.....	September 3, 2013

**TVA NUCLEAR POWER GROUP  
ORGANIZATION DESCRIPTION**

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## **Abstract**

This Topical Report (TVA-NPOD89-A) includes the organizational descriptions for the Nuclear Power Group (NPG) including Browns Ferry (BFN), Sequoyah (SQN), Watts Bar (WBN) Nuclear Plants, the Corporate NPG organization and the Tennessee Valley Authority (TVA) Nuclear Construction (NC) organization. This report contains the senior management, technical support and operating organization descriptions, and organization charts that meet the "content" guidance of Nuclear Regulatory Commission's (NRC's) Regulatory Guide 1.70, Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants - LWR Edition, Rev. 3 (November 1978).

Qualification 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 NPG Quality Assurance Plan (TVA-NQA-PLN89-A) and is not repeated herein.

The original purpose of the NPG Organization Description (TVA-NPOD89-A) was to establish a controlled, single-source document and a disciplined process for communicating the organizational structure and position descriptions to the 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 NPG and NC organizations. This topical report is updated as necessary to reflect major organizational changes. Since this topical report encompasses multiple plants, subsequent updates to the Topical Report will be provided on a biennial basis to ensure that TVA meets the refuel cycle criterion of 10 CFR 50.71(e) for each unit at each site.



## **Introduction**

### **TVA Corporate Organization**

The Tennessee Valley Authority (TVA) is an agency of the federal government whose major policies, programs, and organization are determined by a part-time, nine member Board of Directors (BOD) structure pursuant to the TVA Governance Restructuring provisions of the Consolidated Appropriations Act, 2005. The BOD members are appointed by the President of the United States and confirmed by the Senate for five-year terms. The BOD selects a Chief Executive Officer (CEO) who also serves as President to manage TVA's day-to-day business. The BOD shapes the long-term business strategies, recommends major program initiatives, and guides TVA's day-to-day operations.

The CEO is responsible for managing all aspects of TVA, including power production, transmission, power trading, resource management programs, and economic development, as well as TVA's corporate functions. The CEO heads TVA's Senior Management Committee and chairs its Leadership Team.

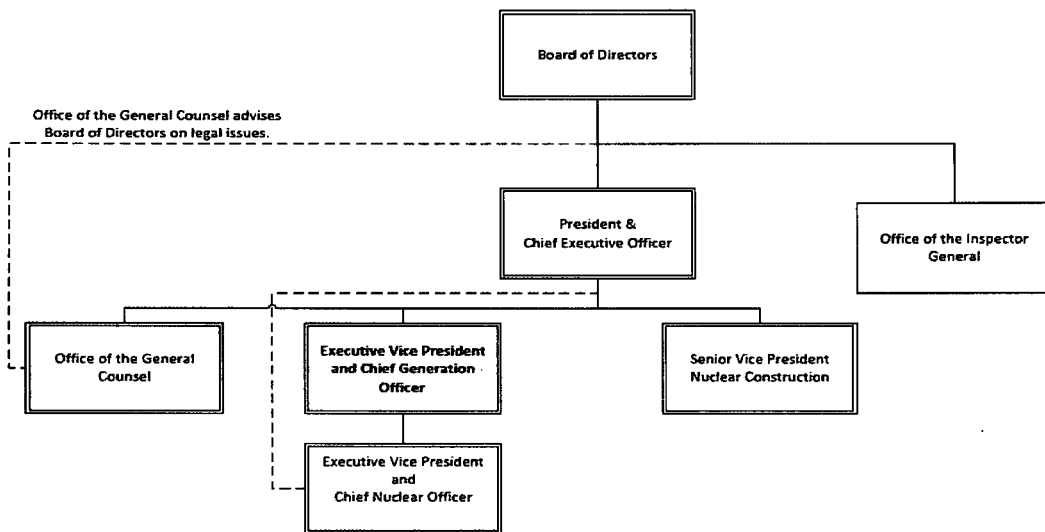
The Executive Vice President and Chief Generation Officer (CGO) is responsible for optimizing TVA's fleet of generation resources, including nuclear, coal, gas, hydroelectric and renewables, to meet the energy demands of the Tennessee Valley. The CGO reports directly to the CEO.

The Executive Vice President and Chief Nuclear Officer (CNO) is responsible for the overall safety, efficiency, and economy of TVA's Nuclear Power Program and the overall NPG organization.

The Senior Vice President (VP) NC is responsible for the construction of additional nuclear generation assets and technologies to meet demands for safe, clean, reliable and low cost power.

The Corporate Organization leadership and reporting relationships are shown in Figure 1-0.

**Corporate Organization**  
**Figure 1-0**



I. Executive Vice President and Chief Generation Officer (CGO)

The CGO is responsible for leading the operations of all of TVA's generating assets including Nuclear; Coal Operations; Gas Operations; Power Supply & Fuels; Generation Construction; Engineering, Environmental & Support Services; and River Operations & Renewables. The position leads the activities of these organizations in accordance with the goals, vision, and values established by the CEO and the Board of Directors and is responsible for establishing short-term and long-term objectives, plans, and policies subject to the approval of the CEO.

The Nuclear Power Group (NPG) is responsible for nuclear plant engineering and design, operation, quality assurance, and compliance with regulatory requirements. NPG plans and manages the Nuclear Program to meet the requirements of TVA's Power Program consistent with safety, environmental, quality, and economic objectives. The CGO is responsible for assuring that the Inspection and Testing Services organization supports Nuclear Construction activities in accordance with the Nuclear Quality Assurance Plan.

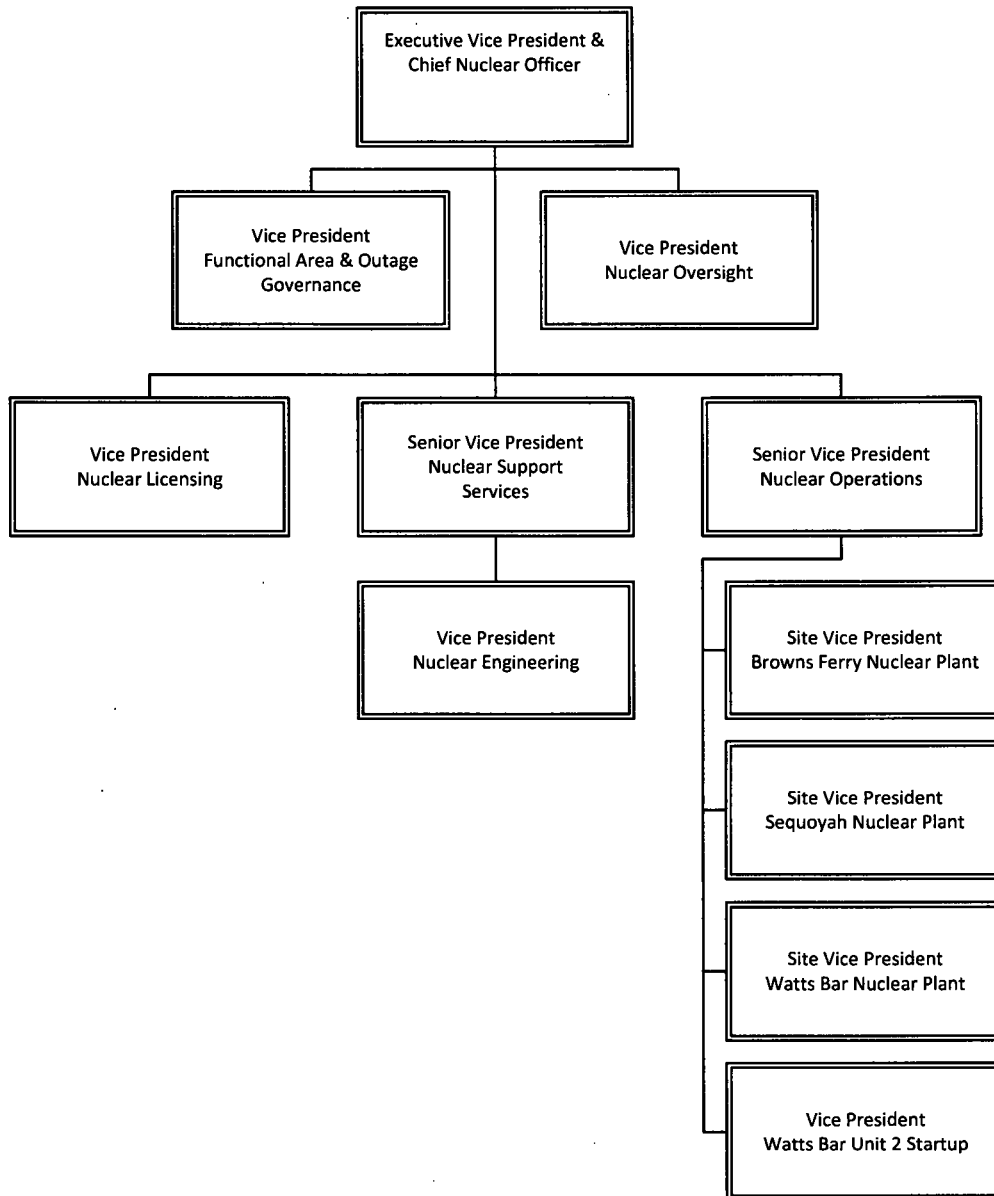
The general organization of NPG is shown in Figure 2-0.

A. Executive Vice President and Chief Nuclear Officer (CNO)

The CNO 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 Executive Vice President and CNO has corporate responsibility for overall plant nuclear safety and shall take measures needed to ensure acceptable performance of the staff in operating, maintaining, and providing technical support in the plant so that continued nuclear safety is assured. The CNO reports directly to the CGO. The CGO reports directly to the CEO. The CNO is responsible for the overall safety, efficiency, and economy of nuclear operations. The CNO establishes 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, and technical and administrative matters related to these programs. The CNO coordinates activities and functions of NPG 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. Other responsibilities include: development and implementation of an effective radiological Emergency Preparedness Program; directing shutdown of nuclear facilities when deemed appropriate; and development of long-range, strategic plans for all NPG programs, activities, and facilities. Quality Assurance reports directly to the Vice President, Nuclear Oversight, but has direct access to the CNO. This provides independence and freedom to effectively ensure conformance to Quality Assurance Program requirements. The Senior Vice President Nuclear Construction (NC) works with the CNO to ensure that future nuclear generation is coordinated with the existing fleet.

The CNO's direct reports are provided in Figure 2-0. These functions are described in more detail in subsequent sections of this Topical Report.

# Nuclear Power Group



A. Executive Vice President and Chief Nuclear Officer CNO (continued)

1.0 Senior Vice President Nuclear Support Services

This position is responsible for the support services associated with producing safe and reliable nuclear power. Responsibility includes: Regulatory Recovery Projects, Nuclear Engineering, Emergency Preparedness, Security Operations, Business Operations, NPG Bellefonte (BLN) interface and Corporate Nuclear Training.

1.1 Vice President Nuclear Engineering

This position is responsible for establishing and directing engineering functions within the NPG. This includes Corporate Design Engineering, Equipment Reliability & Components Engineering, Engineering Programs, Reactor Engineering & Fuels, Corporate System Engineering, and Probabilistic Risk assessment. Responsibilities include governance and oversight of Site Engineering functions and policy compliance for NPG's fleet in regard to engineering functions. In addition, this position advises NPG executives on technical issues affecting the sites and provides direction to the Site Engineering Directors. This position has an indirect reporting relationship to the CNO.

For National Fire Protection Association (NFPA) matters, the Corporate Engineering Chief Engineer (Vice President Nuclear Engineering) serves as the TVA Authority Having Jurisdiction (AHJ) and is responsible for approving fire protection equipment installation or procedure design basis matters which do not require prior NRC approval. For issues which require prior approval, the NRC is considered the AHJ. This position also serves as the point of contact with other organizations on fire protection related matters.

2.0 Vice President Nuclear Oversight

The Vice President, Nuclear Oversight reports directly to the CNO and is responsible for directing and managing the NPG Oversight organization, including Quality Assurance, Performance Analysis and Assessment, Corrective Action Program, Performance Improvement. The responsibility for Quality Assurance includes oversight to ensure implementation of NPG's QA Programs for evaluating program effectiveness for design, construction, safety and reliability, and operation of TVA's nuclear plants. This includes review of the Nuclear Quality Assurance Plan and Quality Assurance internal procedures. Quality Assurance has an indirect reporting structure to the CNO to provide independence and freedom to effectively ensure conformance to Quality Assurance Program requirements.

3.0 Vice President Nuclear Licensing

This position provides oversight and direction of the NPG Licensing functions in support of the operations of TVA's licensed nuclear plants. This position is responsible for the development of regulatory vision and strategy for regulatory issues for both Corporate and Sites and providing policy recommendations. This position provides governance and oversight of the site licensing organizations.

#### 4.0 Vice President Functional Area and Outage Governance

This position provides corporate governance of the various functional areas (maintenance, operations, radiation protection, chemistry, work control) for TVA's nuclear fleet in order to ensure consistency across sites. Also provides governance to the outage activities at the various sites to ensure optimal performance.

#### 5.0 Senior Vice President Nuclear Operations

This position reports directly to the CNO and provides oversight of the NPG operating nuclear plants. This position is also responsible for nuclear safety culture and organizational effectiveness. The Senior Vice President Nuclear Operations direct reports are the Nuclear Plant Site Vice Presidents.

##### 5.1 Site Vice President (Typical for the operating nuclear plants)

This position is responsible and accountable for activities at the site including operations, modifications, maintenance, support, training, and engineering services. The Site Vice President's direct reports and functional reporting relationships are provided in Figure 2-1.

##### 5.1.1 Director Site Engineering

This position is responsible for management and execution of site projects to provide overall management of the Engineering Design, Systems Engineering, Engineering Support, Technical Support, and Components Test and Inspection functions at the site. This function specifically includes managing activities necessary for capital work in support of the operating units and refueling outages.

##### 5.1.1.1 Manager System Engineering

Responsible for integrated management and execution of site projects to provide overall management of the engineering functions at the site, including both outage and on-line support. This responsibility specifically includes managing activities necessary for system health and capital work in support of the operating unit(s), refueling outages, and to recover units from unplanned outages safely, within budget, on schedule, in accordance with applicable requirements.

##### 5.1.1.2 Manager Design Engineering

Responsible for integrated management and execution of site projects to provide overall management of the engineering functions at the site, including both outage and on-line support. This responsibility specifically includes managing activities necessary for capital work in support of the operating unit(s), refueling outages, and to recover units from unplanned outages safely, within budget, on schedule, in accordance with applicable requirements.

5.1.1.3 Manager Reactor Engineering

Plans and directs the Reactor Engineering section functions to ensure the reliable and efficient performance of assigned plant equipment in accordance with applicable requirements.

5.1.1.4 Manager Component Engineering

Manage the Component Engineering functions to ensure the reliable and efficient performance of assigned plant equipment and components, in accordance with applicable requirements.

5.1.2 Director Site Training

This position directs the planning, development, implementation, and evaluation of Training Programs to ensure sufficient qualified personnel to operate, maintain, and modify the nuclear power plant.

5.1.3 Director Modifications and Projects

This position is responsible for cost engineering functions including estimating, forecasting, trending/scope control, data analysis, and reporting. Other responsibilities include ensuring technical and programmatic cost requirements of the site organizations and for planning and scheduling of major modifications and projects.

5.1.4 Director Safety and Licensing

This position is responsible for the Site Performance Improvement, Emergency Planning, and Site Licensing functions.

5.1.5 Manager Site Quality Assurance

This position provides oversight of quality activities associated with the operation of the plant. Responsibilities are described in detail in TVA's Nuclear Quality Assurance Plan (TVA-NQA-PLN89-A). This position reports to the General Manager, Quality Assurance (Corporate) and has a reporting relationship (dotted line) to the Site Vice President.

5.1.6 Plant Manager (General Manager at Browns Ferry)

This position is responsible for ensuring that plant operations and support activities are conducted in accordance with applicable requirements. Responsible for overall plant safe operation and has control over those resources necessary for safe operation and maintenance of the plant. This position's direct reports and areas of administrative responsibilities are provided in Figure 2-2.

5.1.6.1 Manager Maintenance

This position 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.

5.1.6.1.1 Superintendent Instrumentation and Controls

Manage the activities of the Instrumentation and Controls Maintenance business unit. Provides long-range business unit planning that meets site financial objectives and technical requirements. Management of the Corrective, Preventive, and Outage Maintenance Programs for all plant instrumentation equipment to ensure that equipment functions properly and meet desired performance objectives.

5.1.6.1.2 Superintendent Electrical

Manage the activities of the Electrical Maintenance business unit. Provides long-range business unit planning that meets site financial objectives and technical requirements. Management of the Corrective, Preventive, and Outage Maintenance Programs for all plant electrical equipment to ensure that equipment functions properly and meet desired performance objectives.

5.1.6.1.3 Superintendent Mechanical

Manage the activities of the Mechanical Maintenance business unit. Provides long-range business unit planning that meets site financial objectives and technical requirements. Management of the Corrective, Preventive, and Outage Maintenance Programs for all plant mechanical equipment to ensure that equipment functions properly and meet desired performance objectives.

5.1.6.2 Manager Radiation Protection

This position guides programs and activities at the plant ensuring that all operations, maintenance, modifications and engineering activities are conducted in a radiological safe manner and protect plant personnel, systems and equipment.

5.1.6.3 Manager Chemistry and Environmental

This position guides programs and activities at the plant ensuring that all operations, maintenance, modifications, and engineering activities that potentially impact plant chemistry/environmental are conducted in a manner consistent with applicable requirements.



5.1.6.4 Manager Work Control

This position provides overall responsibility for planning, coordination, scheduling and monitoring of all on line and outage work. Responsible for establishing work priorities and coordinating shift turnover; managing the plant scheduling processes; and ensuring efficient and effective management of the work control function.

5.1.6.5 Manager Operations

This position provides responsibility for planning, organizing, and setting policy, and support activities. These activities include operational strategies for generation, water and waste usage, approval authority for system enhancements, and prioritization of maintenance activities.

5.1.6.5.1 Superintendent Operations

This position is responsible for plant operations. The superintendent, through the Shift Manager, manages the day-to-day operation of the facility, refueling operations, start-up, operational testing, water and waste processing, and plant operations. The shift crew for an operating unit normally consists of the Shift Manager, Unit Supervisor, Nuclear Unit Operators, and Assistant Unit Operators.

5.1.6.5.2 Superintendent Operations Support

This position is responsible for budget preparation, training oversight, performance monitoring, the Fire Protection Program and assists the Manager, Operations, in overall program direction for operations.

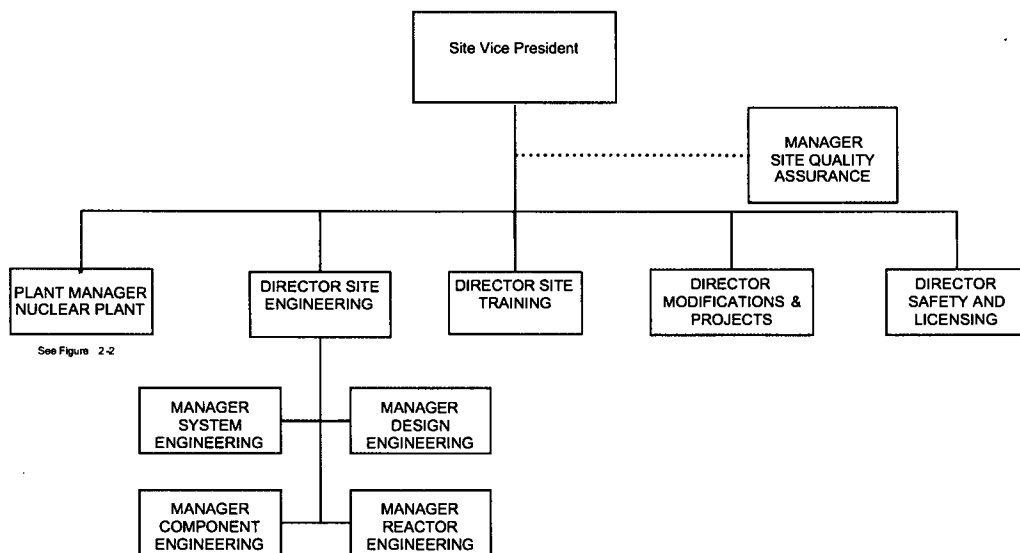
5.1.6.5.3 Superintendent Operations Outage Support

This position is responsible for all operations outage execution and preparation.

5.2 Vice President Watts Bar Unit 2 Start Up

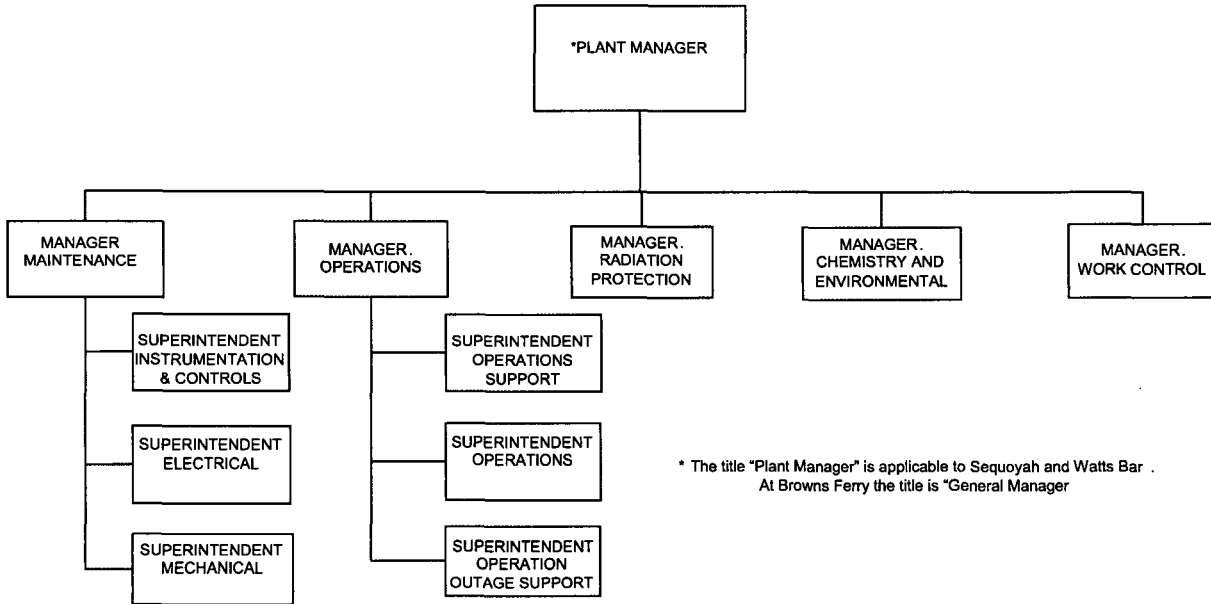
This position manages the activities associated with the start-up of WBN Unit 2 and reports to the Senior Vice President of Nuclear Operations. Specifically provides operational oversight of all activities for the WBN Unit 2 completion including construction, operations, engineering, maintenance, cost scheduling, procurement, licensing and pre-op startup and that all systems are fully integrated with the operating unit in compliance with Nuclear Power Group policies and procedures, plant Technical Specifications.

**Site Vice President**  
**Typical for Browns Ferry, Sequoyah, and Watts Bar Nuclear Plants**  
**Figure 2-1**



\* The title "Plant Manager" is applicable to Sequoyah and Watts Bar . At Browns Ferry, the title for this position is "General Manager"

**Plant Manager  
Figure 2-2**



II. Senior Vice President Nuclear Construction (NC)

This position is accountable for the development and construction of additional nuclear generation assets and technologies to meet demand for safe, clean, reliable and low cost power. Responsibilities may also include major projects supporting NPG facilities. This position's direct reports and administrative areas of responsibility are provided in Figure 3-0.

1.0 Senior Manager Quality Assurance Watts Bar Unit 2

This position is a direct report to the Senior Vice President NC. This position provides oversight of quality activities associated with the conduct of Watts Bar Unit 2 project activities to oversee and ensure that we comply with NQAP Program. This position is a direct report to the Senior Vice President NC to allow for the independence and organizational freedom to execute the TVA NQAP to ensure nuclear safety and quality.

2.0 Senior Manager Quality Assurance Bellefonte

This position is a direct report to the Senior Vice President NC. This position provides oversight of quality activities associated with the conduct of Bellefonte project activities to oversee and ensure that we comply with NQAP. This position is a direct report to the Senior Vice President NC to allow for the independence and organizational freedom to execute the TVA NQAP to ensure nuclear safety and quality.

3.0 General Manager Project Management

This position is responsible for directing management of major NC projects, including steam generator replacements, to ensure that managed activities are conducted in accordance with appropriate regulations and TVA policies, programs, and procedures, and federal, state and local regulations. Additionally, this position provides governance and oversight of NC training programs and certifications.

4.0 Vice President Bellefonte Project

This position is responsible for directing project management functions on the Bellefonte Detailed Scoping, Estimating Project as well as site asset preservation functions. This includes determining the nature and extent of onsite and offsite support services required to support project operations. This also includes quality of work activities. This position's direct and indirect reports and administrative areas of responsibility are provided in Figure 3-1.

4.1 Senior Manager Project Management

Responsible for implementation of NC Project Management policy and practices and overall coordination of major projects associated with the Bellefonte completion project. The scope includes Facilities Construction, Switchyard Upgrades, Site Security System, and other site projects.

4.2 Senior Manager Site Construction

The Senior Manager Construction is responsible for detailed planning and contracting to ensure major nuclear projects/contracts are ready for deployment once authorized. This position is responsible for preparing

detailed execution plans, schedules, procedures, specifications for contract formation, cost estimates, resource allocation requirements, and contract bid evaluations; and negotiations for projects of all sizes including site specific modification projects to support Bellefonte Unit 1 completion.

#### 4.3 Senior Manager Engineering

Responsible for management of engineering scope for the Bellefonte completion project including the establishment of the design basis, analytical methods, Engineering Design, Systems Engineering, Start up test, Technical Support, Components Test and Inspection functions on the project. This responsibility includes managing activities necessary for design basis reconciliation, design criteria development, analytical basis/start up programs developed and worked to closure, within budget, on schedule, in accordance with regulations and TVA policies and procedures. Also manages the project engineering activities, including management of multiple engineering (A/E) contractors, and coordinate engineering priorities with Licensing, Construction and Project Controls Managers to meet project objectives.

##### 4.3.1 Manager Electrical Engineering

The Electrical Engineering Manager is responsible for management of electrical engineering scope for the Bellefonte completion project including the establishment of the design basis, analytical methods, Engineering Design, Systems Engineering, Start up test, Technical Support, Components Test and Inspection functions on the project. This responsibility includes managing activities necessary for design basis reconciliation, design criteria development, analytical basis/start up programs developed and worked to closure, within budget, on schedule, in accordance regulations and TVA policies and procedures. Also manages the electrical project engineering activities, including management of multiple engineering (A/E) contractors, and coordinate engineering priorities with Licensing, Construction and Project Controls Managers to meet project objectives.

##### 4.3.2 Manager Mechanical Engineering

The Mechanical Engineering Manager is responsible for management of mechanical engineering scope for the Bellefonte completion project including the establishment of the design basis, analytical methods, Engineering Design, Systems Engineering, Start up test, Technical Support, Components Test and Inspection functions on the project. This responsibility includes managing activities necessary for design basis reconciliation, design criteria development, analytical basis/start up programs developed and worked to closure, within budget, on schedule, in accordance with regulations and TVA policies and procedures. Also manages the Mechanical project engineering activities, including management of multiple engineering (A/E) contractors, and coordinate engineering priorities with Licensing, Construction and Project Controls Managers to meet project objectives.

**4.3.3 Manager NSSS Engineering**

The Nuclear Steam Supply System (NSSS) Engineering Manager is responsible for management of NSSS engineering scope for the Bellefonte completion project including the establishment of the design basis, analytical methods, Engineering Design, Systems Engineering, Start up test, Technical Support, Components Test and Inspection functions on the project. This responsibility includes managing activities necessary for design basis reconciliation, design criteria development, analytical basis/start up programs developed and worked to closure, within budget, on schedule, in accordance with regulations and TVA policies and procedures. This position manages the NSSS project engineering activities, including management of multiple engineering (A/E) contractors, and coordinate engineering priorities with Licensing, Construction and Project Controls Managers to meet project objectives.

**4.3.4 Manager I&C Engineering**

The Instrumentation and Controls (I&C) Engineering Manager is responsible for management of I&C engineering scope for the Bellefonte completion project including the establishment of the design basis, analytical methods, Engineering Design, Systems Engineering, Start up test, Technical Support, Components Test and Inspection functions on the project. This responsibility includes managing activities necessary for design basis reconciliation, design criteria development, analytical basis/start up programs developed and worked to closure, within budget, on schedule, in accordance with regulations and TVA policies and procedures. This position manages the I&C project engineering activities, including management of multiple engineering (A/E) contractors, and coordinate engineering priorities with Licensing, Construction and Project Controls Managers to meet project objectives.

**4.3.5 Manager Civil Engineering**

This position is responsible for management of civil engineering scope for the Bellefonte completion project including the establishment of the design basis, analytical methods, Engineering Design, Systems Engineering, Start up test, Technical Support, Components Test and Inspection functions on the project. This responsibility includes managing activities necessary for design basis reconciliation, design criteria development, analytical basis/start up programs developed and worked to closure, within budget, on schedule, in accordance with regulations and TVA policies and procedures. Also manages the civil project engineering activities, including management of multiple engineering (A/E) contractors, and coordinate engineering priorities with Licensing, Construction and Project Controls Managers to meet project objectives.

**5.0 General Manager Watts Bar Unit 2 Technical Services**

This position provides management and oversight of activities to ensure safe and efficient completion of Watts Bar (WBN) Unit 2 including project controls, schedule, cost, licensing, compliance, and interface and transition. This position, in conjunction with the WBN Unit 1 Site Vice President, is also responsible for thorough coordination and integration of activities with the operating unit in compliance with applicable requirements. This position's direct reports and administrative areas of responsibility are provided in Figure 3-2.

**5.1 Senior Manager Licensing**

This position provides the primary interface with NRC Headquarters. In that capacity, all activities related to achieving a Safety Analysis Report and Final Environmental Impact Statement in support of an Operating License are performed by this organization. In addition, selected activities supporting integration of the Watts Bar Unit 1 and Unit 2 Licensing Basis are also performed by this organization.

**5.2 Manager Compliance**

This position is responsible for compliance issues/questions and is the primary interface with NRC resident and Region II inspectors for Watts Bar Unit 2. The position is also responsible for ensuring Inspection Planning & Schedule (IPS) Item resolution and closure for items associated with NRC identified issues. In addition, selected activities supporting integration of the Watts Bar Unit 1 and Unit 2 Licensing Basis are also performed by this organization.

**5.3 Manager Cost**

This position is responsible for cost functions including estimating, forecasting, trending/scope control, data analysis, and reporting in support of the Watts Bar Unit 2 completion project. Other responsibilities include ensuring technical and programmatic cost requirements of the construction organizations.

**5.4 Manager Interface and Transition**

This position is responsible for ensuring that TVA Corporate organizations have a clear "line of sight" for operational excellence in the transition of WBN Unit 2 from NC to NPG. The deliverables and actions under this individual's responsibility include: accountability associated with the preparations for Unit 2 startup, dual-unit operation and to ensure there are no quality "shortfalls" that can be attributed to the transition plan, development and maintenance of the TVA Corporate transition plan and the action tracking matrix, preparation of a self-assessment outline to assess the effectiveness of the transition plan, participation in the performance of the TVA Corporate readiness self-assessment for dual-unit operation and leads communicating key issues associated with operational readiness.

#### 5.5 Manager Schedule

This position provides overall responsibility for planning, coordination, scheduling and monitoring of all work associated with the Watts Bar Unit 2 completion project. This position is also responsible for establishing work priorities managing the project scheduling processes; and ensuring efficient and effective management of the work control function.

#### 6.0 General Manager Watts Bar Unit 2 Engineering & Construction

This position provides management and oversight of activities to ensure safe and efficient completion of Watts Bar (WBN) Unit 2 including construction, operations, engineering, maintenance, project completion and pre-operational startup testing. This position, in conjunction with the WBN Unit 1 Site Vice President, is also responsible for thorough coordination and integration of activities with the operating unit in compliance with Applicable requirements. This position's direct reports and administrative areas of responsibility are provided in Figure 3-3.

#### 6.1 Senior Manager Operations

This position directs WBN Unit 2 Operations, WBN Unit 2 Fire Protection, and WBN Unit 2 Work Control functions in order to ensure no impact to reliable and efficient generation to meet operations safety requirements; provide for sufficient qualified and licensed personnel to satisfy regulatory requirements; and design and implement process improvements to increase efficiency, effectiveness, and productivity while minimizing associated costs to improve competitiveness.

#### 6.2 Senior Manager Completions

This position provides technical support and management of system completions, construction tasks, refurbishment and the start-up and test organizations for WBN Unit 2. This position is responsible for the oversight of the development, coordination, and implementation of the pre-operational test program for the WBN Unit 2, per Regulatory Guide 1.68 "Initial Test Programs for Water-Cooled Nuclear Power Plants."

#### 6.3 Senior Manager Construction

This position directs the Construction, Maintenance and Modifications, Planning, field engineering and Turbine Generator activities in support of the WBN Unit 2 construction project ensuring the managed activities are conducted in accordance with all applicable TVA policies, programs, and procedures; plant Technical Specifications; and regulations.

#### 6.4 Senior Manager Engineering Watts Bar Unit 2

This position is responsible for management of engineering scope for the WBN Unit 2 completion project including the establishment of the design basis, analytical methods, Engineering Design and Inspection functions on the project. This responsibility includes managing activities necessary for design basis reconciliation, design criteria development, analytical basis/start up programs developed and worked to closure, within budget, on schedule, in accordance with regulations and TVA policies and procedures. Also manages the project engineering activities, including management of multiple



engineering (A/E) contractors, and coordinate engineering priorities with Licensing, Construction and Project Controls Managers to meet project objectives.

**6.4.1 Manager Electrical/I&C Engineering**

This position is responsible for management of electrical/I&C engineering scope for the WBN Unit 2 completion project including the establishment of the design basis, analytical methods, Engineering Design and Inspection functions on the project. This responsibility includes managing activities necessary for design basis reconciliation, design criteria development, analytical basis/start up programs developed and worked to closure, within budget, on schedule, in accordance regulations and TVA policies and procedures. Also manages the electrical/I&C project engineering activities, including management of multiple engineering (A/E) contractors, and coordinate engineering priorities with Licensing, Construction and Project Controls Managers to meet project objectives.

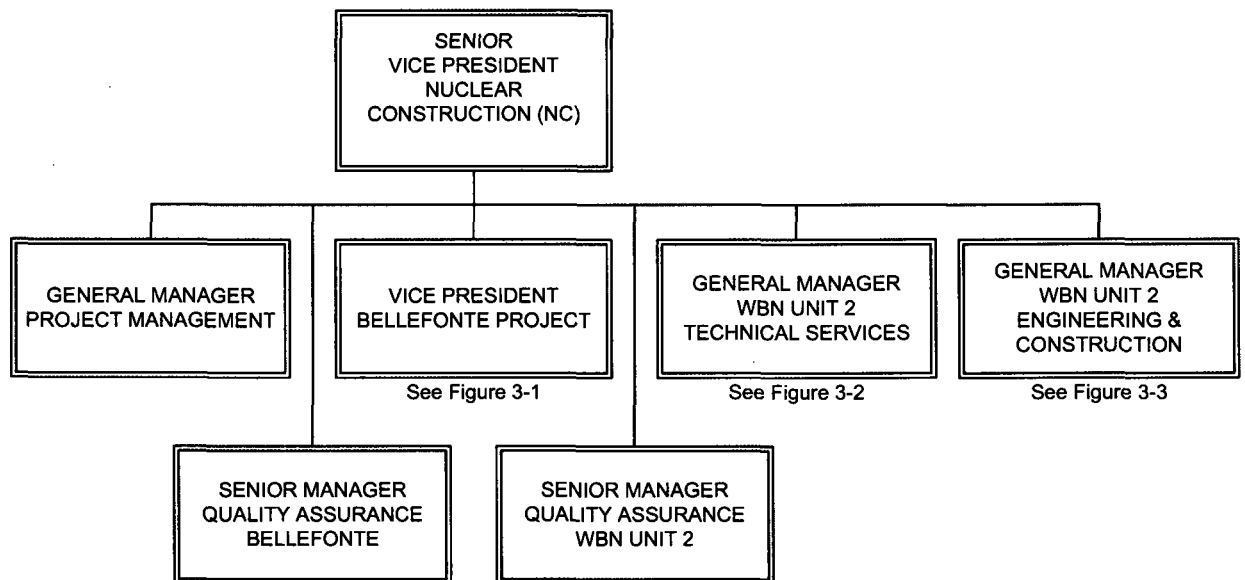
**6.4.2 Senior Manager Mechanical Engineering**

This position is responsible for management of mechanical engineering scope for the WBN Unit 2 completion project including the establishment of the design basis, analytical methods, Engineering Design and Inspection functions on the project. This responsibility includes managing activities necessary for design basis reconciliation, design criteria development, analytical basis developed and worked to closure, within budget, on schedule, in accordance with regulations and TVA policies and procedures. Also manages the Mechanical project engineering activities, including management of multiple engineering (A/E) contractors, and coordinate engineering priorities with Licensing, Construction and Project Controls Managers to meet project objectives.

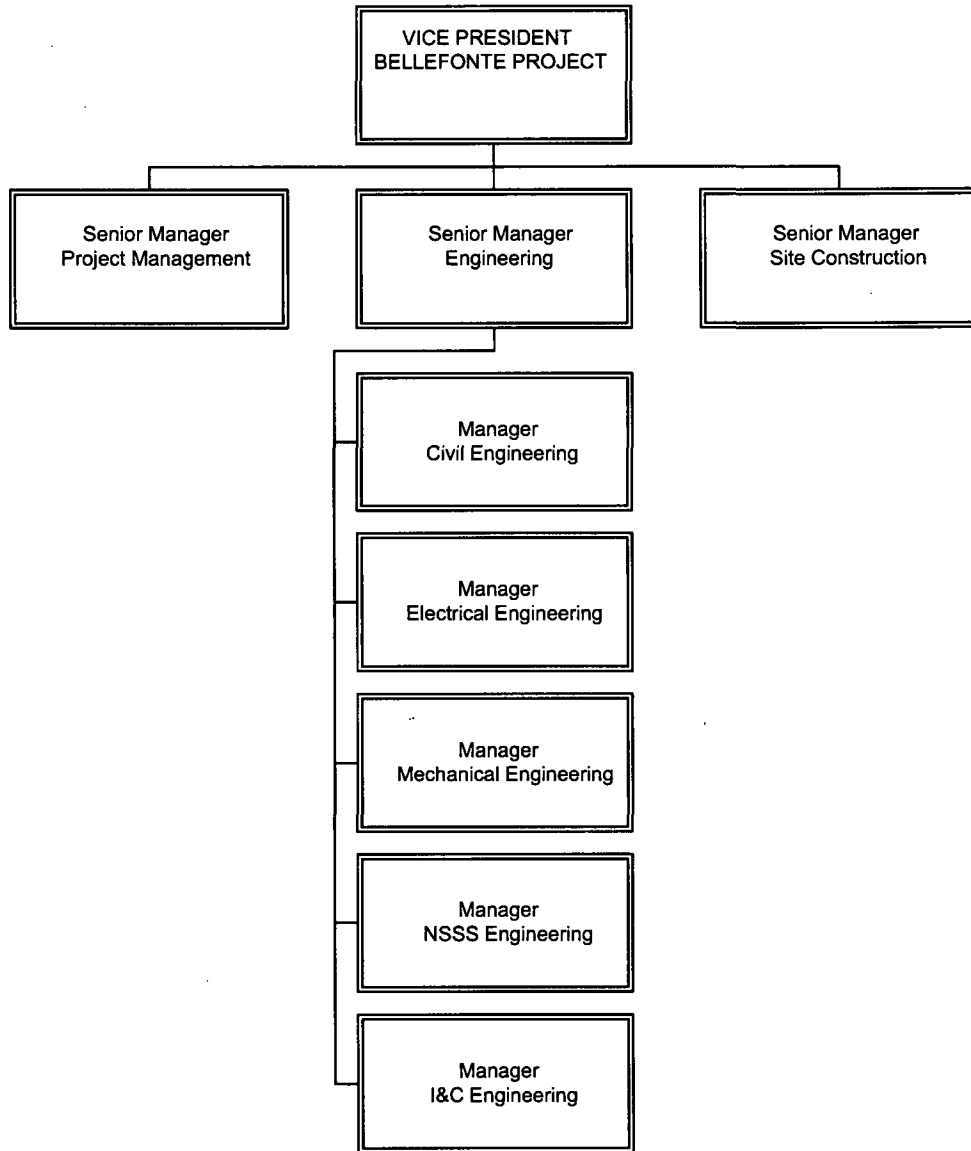
**6.4.3 Manager Civil Engineering**

This position is responsible for management of civil engineering scope for the WBN Unit 2 completion project including the establishment of the design basis, analytical methods and Engineering Design and Inspection functions on the project. This responsibility includes managing activities necessary for design basis reconciliation, design criteria development, analytical basis/start up programs developed and worked to closure, within budget, on schedule, in accordance with regulations and TVA policies and procedures. Also manages the civil project engineering activities, including management of multiple engineering (A/E) contractors, and coordinate engineering priorities with Licensing, Construction and Project Controls Managers to meet project objectives.

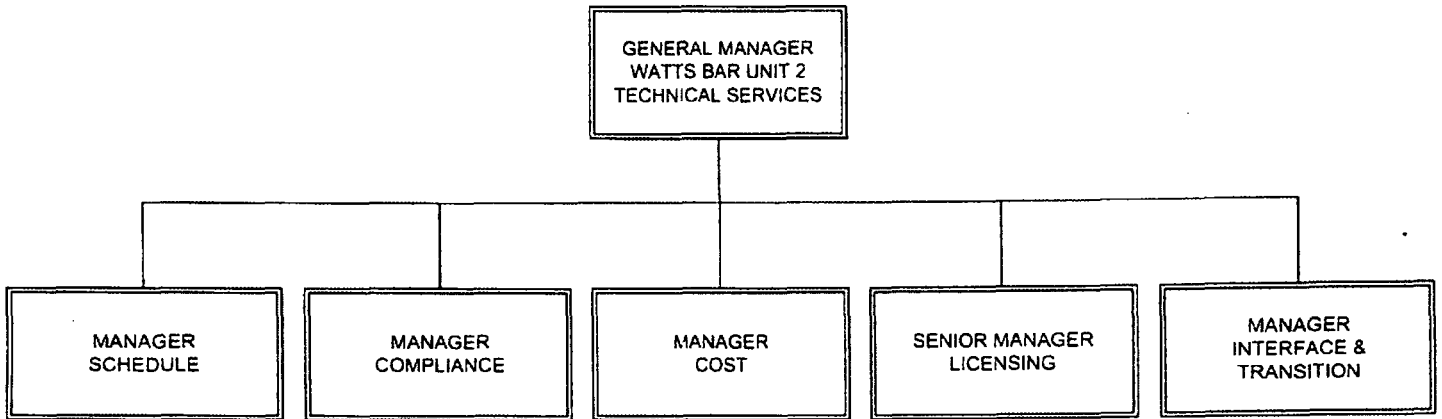
Senior Vice President Nuclear Construction  
Figure 3-0



Vice President Bellefonte Project  
Figure 3-1



General Manager Technical Services Watts Bar Unit 2 Project  
Figure 3-2



General Manager Engineering and Construction Watts Bar Unit 2 Project  
Figure 3-3

