

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

**OPERATIONAL**

**QUALITY ASSURANCE PROGRAM DESCRIPTION**

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## 1 - ORGANIZATION

### 1.1 PURPOSE

This section provides a description of the authorities and responsibilities assigned to Supply System organizational units and individuals involved in establishing, implementing, verifying implementation, and measuring the overall effectiveness of the administrative controls and quality assurance program during the initial testing (pre-operational and startup testing) and subsequent operations phases of Supply System nuclear power plants.

### 1.2 SUPPLY SYSTEM ORGANIZATION

The Supply System organization responsible for establishing, implementing, verifying implementation, and measuring the overall effectiveness of the administrative controls and quality assurance program for its nuclear power plants is as depicted in Figures 1-1 and 1-2. Portions of these activities may be delegated to external organizations qualified to the requirements of this Operational QA Program, hereafter referred to as QA Program, however, the responsibility shall remain with the Supply System.

### 1.3 MANAGEMENT RESPONSIBILITIES

1.3.1 The Managing Director/Deputy Managing Director is responsible for the establishment of policies and for overall management of Supply System operations. The Managing Director has issued a "Management Statement" which commits the Supply System to design, construct, and operate its nuclear power plants without jeopardy to the health and safety of the public. The Managing Director is the ultimate

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1.3.1 (contd.)

Supply System authority on matters involving quality. The Managing Director/Deputy Managing Director operates through the Assistant Managing Director for Operations, the Director of Engineering, the Director of Projects, the Director of Licensing and Assurance, the Director of Information Services, and the Chief Financial Officer to provide for engineering, construction, procurement, quality assurance/quality control, and operations activities for all Supply System nuclear power plants.

1.3.2 The Director, Licensing & Assurance, reports to the Managing Director and is directly responsible for the definition, direction, and effectiveness of the overall QA program during design, construction, and operation phases of all Supply System nuclear power plants.

Major functions of the Licensing and Assurance organization are:

- a. Establishment and maintenance of assurance programs, nuclear operation standards and Directorate procedures which incorporate nuclear safety considerations and comply with the Quality Assurance criteria delineated in Appendix B to 10CFR50.
- b. Assuring through reviews, surveillances, inspections, and audits that Supply System and its suppliers' activities are being performed in accordance with written and approved documents which comply with applicable requirements defined by the assurance programs and nuclear operation standards.
- c. Assessing the overall effectiveness of assurance programs implementation including evaluation of plant performance and reporting conclusions to the Managing Director.

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1.3.2 (contd.)

- d. Stopping unsatisfactory work and control further processing, delivery or installation of nonconforming material.
- e. Establishment and maintenance of adequate and qualified assurance staffing (on-site as well as off-site) levels based on workload analysis.
- f. Maintaining cognizance of changing regulatory requirements and providing controlled interface between the Supply System and regulatory agencies to assure that commitment documents receive the necessary degree and depth of reviews prior to transmittal.
- g. Providing licensing support functions in such areas as acquisition and maintenance of nuclear power plant construction permits and operating licenses.,
- h. Providing trending of deficiencies to identify areas where corrective actions have not minimized recurrence.

The Director of Licensing and Assurance has effective communication channels with all Supply System senior management positions and has no duties or responsibilities unrelated to quality/safety assurance and licensing. To accomplish the above defined role, the Director of Licensing and Assurance operates through the Manager of Operational Assurance Programs, the Manager of Programs and Audits, the Safety Performance staff, the Manager of Nuclear Safety Assurance, and the Manager of Regulatory Programs. The qualification requirements for this position are as described in Appendix I, "Qualification Requirements".

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1.3.2.1 The Manager, Operational Assurance Program, reports to the Director of Licensing and Assurance and is primarily responsible for integrating and directing the performance of quality assurance and quality control functions, that are necessary to assure that the programs for initial testing and subsequent operation of Supply System nuclear power plants are adequate and that they are being implemented. The Manager of Operational Assurance Programs operates through the Plant QA and QC Managers. The qualification requirements for this position are as described in Appendix I, "Qualification Requirements".

1.3.2.1.1 The Plant Quality Assurance (QA) Manager (located on-site) for WNP-2, reports to the Manager of Operational Assurance Programs and is directly responsible for all in-plant QA functions that are necessary to assure that documents (such as programs, plans, and procedures) to be used for the performance of plant activities are acceptable from quality assurance aspects and that they are being implemented. The Plant QA Manager has no duties or responsibilities unrelated to QA matters and has effective communication channels with all plant supervisory and management personnel. The Plant QA Manager is a member of the Plant Operating Committee (see Chapter 13 of the FSAR) and has sufficient authority and organizational freedom to identify problems; to initiate, recommend, or provide solutions; and to verify implementation of solutions. The Plant QA Manager has the authority and responsibility to stop unsatisfactory work and control further processing, delivery, or installation of nonconforming material. When the unit is operating, the Plant QA Manager may recommend that the unit be shut down; the Plant Manager, however, has the final responsibility for the overall evaluation of all aspects and implications of shutting down the operating unit. Qualification requirements for this position are described in Appendix I, "Qualification Requirements". The Plant QA Manager is specifically responsible for:

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1.3.2.1.1 (contd.)

- a. Review of and concurrence with documents affecting safety, including changes thereto, to assure that applicable QA requirements have been identified and specified therein. Documents subject to review and concurrence by QA reviewers include but are not limited to the following: (i) procedures which address: administrative controls, operations, maintenance, technical specifications, in-service inspection and testing, modifications, calibration, testing, and fuel handling; (ii) nonconformance and corrective action reports.
- b. Surveillance verification of in-plant activities to assure that they are being conducted in accordance with approved programs, plans, procedures, or instructions. Included in the scope of this surveillance program are: (i) control room operations; post modification/major maintenance testing, and operational tests; maintenance, modification, repair, and calibration; personnel training; and refueling activities; (ii) activities associated with satisfying technical specifications and in-service inspection and testing; and (iii) activities associated with the implementation of security, emergency response, fire protection, and radiological protection programs.

1.3.2.1.2 The Plant Quality Control (QC) Manager (located on-site) for WNP-2, reports to the Manager of Operational Assurance Programs and is directly responsible for all in-plant QC functions necessary to see that all needed examinations of materials, equipment and workmanship are made and evaluated to assure that appropriate quality standards are met. Qualification requirements for this position are described in Appendix I, "Qualification Requirements". In accomplishing this, the Plant QC Manager is responsible for:

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1.3.2.1.2 (contd.)

- a. Evaluation of procedures and instructions for accomplishing QC activities.
- b. Determining and establishing hold points for inspections, examinations and/or measurements to be accomplished during maintenance, modification, repairing and testing.
- c. Performing and evaluating the inspections, examinations and/or measurements established.
- d. Rejecting work that does not meet quality standards.
- e. Assuring that proper staffing is available to meet plant work loads.

1.3.2.2 The Manager, Programs and Audits, reports to the Director of Licensing and Assurance and is primarily responsible for QA Program development, procurement QA, project preservation QA, non-destructive examination (NDE) and inspector certification functions during initial testing and subsequent operations phase activities of Supply System nuclear power plants, and maintaining an organization of qualified auditors responsible for verifying implementation of the QA Program. Some of the specific responsibilities of the Manager of Programs and Audits are:

- a. Establishment, maintenance, and control of the Operational QA Program Description (WPPSS-QA-004) and the Supply System Functional Manual for Nuclear Operation.





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1.3.2.2 (contd.)

- b. Qualification/certification of Supply System non-destructive examination (NDE), and inspection and test personnel.
- c. Vendor qualification, review and concurrence with vendor furnished programs and procedures, and source verifications (e.g., surveillances, inspections, and audits at vendor facilities).
- d. Providing QC inspection of materials and equipment received by the Supply System.
- e. Acquisition and maintenance of ASME Certificates of Authorization and/or Owners Certificates.
- f. Ensuring that a written agreement with an Authorized Inspection Agency is obtained to provide for Authorized Nuclear In-Service Inspection Services.
- g. Review of and concurrence with programs, procedures and/or instructions, including changes thereto, of off-site Supply System organizations to assure that they are clear, address applicable QA requirements, and are technically acceptable, prior to approval for release.
- h. Performing QA audits of Supply System organizations and external organizations (e.g., the Architect/Engineers and the Construction Management).
- i. Developing audit schedules and selecting qualified personnel to perform the activities of this function.



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1.3.2.2 (contd.)

- j. Certification of Audit Team Leaders.
- k. Training of audit personnel.
- l. Forwarding of audit reports to the Chairman of the Corporate Nuclear Safety Review Board, and management positions responsible for the areas audited, for their review, assessment, and/or correction of identified deficiencies.
- m. Maintenance of audit records.
- n. Ensuring that documentation and equipment of WNP-1 and WNP-3 are preserved such that the quality standards can be demonstrated on restart.

The Manager of Programs and Audits accomplishes this role through the Manager of Procurement Quality Assurance, Manager of WNP 1 and 3 QA and staff engineers.

- 1.3.2.2.1 The Manager, Procurement Quality Assurance, reports to the Manager of Programs and Audits and is primarily responsible for the definition and implementation of source surveillance/audit program for verification of activities performed by the Supply System vendors (including the Nuclear Steam Supply System vendors). He is further responsible in assuring that all items received for WNP-2 met the required quality standards. The Manager of Procurement Quality Assurance is specifically responsible for:



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1.3.2.2.1 (contd.)

- a. Review of and concurrence with procurement procedures and documents for items and services.
- b. Establishment of vendor hold points for inspection and release of material/equipment for shipment.
- c. QC receipt inspection of materials and equipment received by the Supply System, establishing appropriate hold points.
- d. Establishment and maintenance of evaluated vendors list.
- e. Planning, coordination, and performance of source surveillances, source inspections, and source audits to verify implementation of vendors' QA/QC programs.
- f. Review and approval of vendor furnished QA/QC procedures and programs.

1.3.2.2.2 Manager, WNP-1 or WNP-3 QA, reports to the Manager of Programs and Audits and is primarily concerned with assuring that the records and equipment of the Project are maintained such that they may be shown to meet quality standards on restart.

1.3.2.2.3 The Audit Staff, report to the Manager of Programs and Audits and perform audits of programs and organizations as required by the Technical Specifications, regulating bodies, and management concerns.

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1.3.2.3 The Manager of Nuclear Safety Assurance reports to the Director of Licensing and Assurance and is primarily responsible for integrating and directing nuclear safety assurance and quality evaluations of technical and operational activities. These evaluations are necessary to assure that such activities meet or exceed regulatory requirements and are being implemented in a manner to improve the safety and performance of WNP-2. The Manager of Nuclear Safety Assurance operates through the Technical Assessment Manager and Operating Experience Assessment Manager.

1.3.2.3.1 The Manager of Technical Assessment (located on-site), for WNP-2, reports to the Manager of Nuclear Safety Assurance and is responsible for:

- a. Assessment of programs, processes, and activities including engineering, maintenance, modifications, operational problems, technical support activities, and operational analysis that affect plant nuclear safety and reliability.
- b. Assessment of plant operations and performance regarding conformance to regulatory requirements.
- c. Independent design functional and safety evaluations.
- d. Self-initiated SSFI reviews and other similar plant safety system operability reviews.
- e. Independent assessments of engineering product quality.
- f. Engineering programs, process, and procedure review.



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1.3.2.3.2 The Manager of Operating Experience Assessment (located on-site), for WNP-2 reports to the Manager of Nuclear Safety Assurance and is responsible for:

- a. Evaluation of the industry and in-plant operating experience and make recommendations for improvements in overall plant performance.
- b. Evaluation and determination of root cause of plant related events, including human performance.
- c. Tracking the implementation of corrective actions associated with a. and b. above.

1.3.2.4 The Manager, Regulatory Programs, reports to the Director of Licensing and Assurance and is responsible for:

- a. Acquisition and maintenance of operating licenses of Supply System nuclear power plants.
- b. Establishment and maintenance of interfaces between the Supply System and the Nuclear Regulatory Commission.
- c. Defining and implementing programs which assure that licensing submittals receive an adequate technical review from cognizant Supply System, NSSS, and AE personnel prior to transmittal.
- d. Tracking licensing commitments and taking action necessary to assure that they are being met in a timely manner.



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1.3.2.4 (contd.)

- e. Maintaining awareness of changing licensing requirements.
- f. Providing coordinated development of responses to and comments to new laws, regulations, regulatory guides, and other regulatory issuances.
- g. Supporting the Corporate Nuclear Safety Review Board (CNSRB) in its activities as defined by the Technical Specifications, the Managing Director and its Chairman.

1.3.3 The Assistant Managing Director, Operations, reports to the Managing Director, and is responsible for:

- a. Safe and efficient operation of all Supply System nuclear power plants.
- b. Safe and successful completion of initial testing activities for WNP-2 (through the WNP-2 Plant Manager).
- c. Establishment and monitoring of maintenance systems common to all nuclear power plants.
- d. Training of Nuclear Plant staff and support personnel.
- e. Development of programs and procedures to ensure uniform application at all nuclear power plants.

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1.3.3 (contd.)

- f. Radiological protection, industrial safety, fire protection, plant security, emergency preparedness, and radioactive waste management.

To accomplish this role, the Assistant Managing Director for Operations operates through the Plant Managers, the Technical Training Manager, the Performance Evaluation Manager, and the Manager Support Services.

1.3.3.1 The Plant Manager for each of the Supply System nuclear power plants reports to the Assistant Managing Director for Operations and is directly responsible for safe and efficient operation of the plant in accordance with the requirements of the Operating License, the Plant Technical Specifications, and the Plant Procedures Manual. Some of the specific responsibilities of the Plant Manager are:

- a. Planning, coordinating, and directing all test, operation, modifications, maintenance, and refueling activities subsequent to the issuance of an Operating License.
- b. Authorizing all plant modifications subsequent to the issuance of an Operating License.
- c. Qualification and training of plant staff.
- d. Initiation and approval of purchase requisitions.
- e. Controlling purchased equipment and materials intended for plant use.

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1.3.3.1 (contd.)

- f. Establishment and implementation of a calibration program for Measuring and Test Equipment (including installed instruments covered by the Plant Technical Specifications).
- g. Dispositioning of nonconforming items.
- h. Control and maintenance of on-site operations records.
- i. Implementation of the in-service inspection program.

The Plant Manager operates through the Operations Manager, the Maintenance Manager, the Technical Manager, the Health Physics/Chemistry Manager, and the Administration Manager. The plant organization and functional responsibilities of key plant personnel are described in Chapter 13 of the Final Safety Analysis Report for the applicable nuclear power plant.

1.3.3.2 The Manager, Technical Training, reports to the Assistant Managing Director for Operations and is responsible for operations training policy and guidance for the nuclear plants and the conduct of central training services for nuclear plant operations.

1.3.3.3 The Manager, Performance Evaluation, reports to the Assistant Managing Director for Operations and is responsible for:

- a. Providing a performance evaluation program which measures and analyses the effectiveness and efficiency of power plant operating performance.



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1.3.3.3 (contd.)

- b. Providing centralized information system to interface with the Institute for Nuclear Power Operation and other industry inquiries, requests, and information.

1.3.3.4 The Manager, Support Services, reports to the Assistant Managing Director for Operations and is responsible for the development and implementation of policies and programs which support operation of Supply System nuclear power plants in the areas of radiological protection, safeguards and physical security, industrial safety and fire protection, emergency preparedness, environmental studies, and environmental monitoring, for WNP-2. To accomplish this role, the Manager of Support Services operates through the Manager of Radiological Programs and Instrument Calibration, the Manager of Health and Sciences, the Manager of Security Programs, the Manager of Emergency Planning, and the Manager of Industrial Safety and Fire Protection.

1.3.3.4.1 The Manager, Radiological Programs and Instrument Calibration, reports to the Manager of Support Services and is responsible for the development and coordination of Supply System programs for health physics and chemistry and to provide support to the plant in the areas of radiological assessment, radiation dosimetry, on-site meteorological services, other miscellaneous radiological services and central instrument maintenance and calibration.

1.3.3.4.2 The Manager, Security Programs, reports to the Manager of Support Services and is responsible for overall Supply System security activities. The Manager of Security Programs is specifically responsible for:

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1.3.3.4.2 (contd.)

- a. Administration of a security program which includes preemployment screening, physical security surveys, and investigations and loss prevention.
- b. Management of security force during the operational phase by assuring that physical security is consistent with needs and is maintained within individual plant safeguards security plans.
- c. Providing training, administrative, and technical assistance to Plant Managers in the area of plant security.

1.3.3.4.3 The Manager, Emergency Planning, reports to the Manager of Support Services and is responsible for; development and maintenance of emergency preparedness plans.

1.3.3.3.4 The Manager, Industrial Safety and Fire Protection, reports to the Manager of Support Services and is responsible for developing and support plant management in the implementation of effective personnel safety, loss prevention and fire protection programs.

1.3.3.3.5 The Manager, Health and Sciences, reports to the Manager of Support Services and is responsible for performing environmental studies and routine environmental monitoring in compliance with permit requirements including the Radiological Environmental Monitoring Program.

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- 1.3.4     The Director, Engineering, reports to the Managing Director, and is responsible for providing project management engineering, and generation engineering and design control, reactor safety evaluation, nuclear analysis, plant simulator project management and support, nuclear fuel supply, and maintenance/surveillance engineering support as required for each Supply System nuclear plant. The Director of Engineering is specifically responsible for:
- a.   Providing project management and engineering for projects under construction and preservation management and engineering for mothballed projects.
  - b.   Providing design and engineering for operating plant design changes and modifications.
  - c.   Providing programs for pre-service inspection, in-service inspection, and non-destructive examinations.
  - d.   Providing technical resolution of nuclear safety, licensing, and geological issues.
  - e.   Initial fuel supply.
  - f.   Reload fuel supply, design, and licensing.
  - g.   Maintaining a current engineering data base for each plant.

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1.3.4 (contd.)

- h. Providing Project Management for the disposition of WNP-4/5 assets.

To accomplish this role, the Director of Engineering operates through the WNP-2 Manager, Generation Engineering; the Manager Construction Projects, and the Manager WNP-4/5 Programs; the Engineering Systems Support Manager; and the Engineering Analysis and Nuclear Fuels Manager.

1.3.4.1 The WNP-2 Manager, Generation Engineering, reports to the Director of Engineering, and is directly responsible for:

- a. Development and implementation of design control programs and processes by which design and design document content is defined, controlled and verified.
- b. Management of the direct engineering and design for plant operation through retention of expert technical knowledge of plant-specific analysis, plant systems, structures, and components.
- c. Implementation of configuration control by establishing site-specific policy, procedures, and methods that allow control and accountability.
- d. Management of engineering subcontractors for support services, engineering design, and other consulting services.
- e. Interface with site organizations and corporate engineering to coordinate and integrate engineering programs and support functions.



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1.3.4.1 (contd.)

- f. Management of a single, administrative process by which all WNP-2 engineering-related activities and commitments are assigned, scheduled, tracked, and dispositioned.

1.3.4.2 The Manager, Construction Projects, reports to the Director of Engineering, and is directly responsible for:

- a. WNP-1, WNP-3, and HGP site preservation, including preservation of licenses, permits, agreements, design assets, and physical assets in a state of readiness for resumed construction.
- b. Project Management and engineering for active construction projects.
- c. Development of technical criteria, requirements, and specifications.
- d. Development and maintenance of engineering baselines.
- e. Management of Architect Engineer's (A/E) activities relative to development of design, implementation of licensing commitments, and testing.
- f. Approval of all design and construction phase-related license and permit commitments and assuring conformance to these commitments in equipment and design contracts.
- g. Discharging the site-specific technical duties and responsibilities required of an ASME N-Certificate holder and for the Owner's Certificate of Authorizations.

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1.3.4.2 (contd.)

- h. Technical support of plant startup and certification of plant systems readiness for operation.
- i. Preparation of pre-service and in-service inspection programs for WNP-1/3.

1.3.4.3 The Manager, Engineering Systems Support, reports to the Director of Engineering, and is directly responsible for corporate-based engineering support to WNP-1 and WNP-3 Engineering and for providing staff support to WNP-2 Generation Engineering for:

- a. Performance of in-service inspection and testing program plans, and related Code and regulatory interface.
- b. Nondestructive examination and testing services.
- c. Materials and welding engineering and program development.
- d. Codes and standards interpretation and guidance.
- e. Equipment qualification programs.
- f. Corporate technical positions and standards, as well as operating experience reviews, related to the above topical areas.
- g. Engineering Criteria for Class 1 and Commercial Grade Dedicated spare parts procurement.
- h. Management of Master Equipment List (MEL), Safety Related Material (SRM), Class 1 Electrical (C1E), and Restricted Use Equipment List (RUEL) Data Basis.

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1.3.4.4 The Manager, Engineering Analysis and Nuclear Fuels, reports to the Director of Engineering and is directly responsible for:

- a. The supply, engineering, and efficient in-core management of nuclear fuel for each nuclear plant.
- b. Geological studies programs to determine the acceptability of plant sites and seismic design bases.
- c. Configuration control, design engineering and overall project management for training simulator acquisition and modification.
- d. Structural design, stress analysis, and specialized ASME Code expertise for plant pressure retaining systems and their supporting structures.
- e. Transient analysis and licensing issue resolution to support plant modifications, technical specification changes, and reload fuel licensing.
- f. Reliability and availability analyses to improve plant performance, safety, and maintainability.
- g. Engineering support for plant computer system's software configuration control.

1.3.4.5 The Manager, WNP-4/5 Programs, reports to the Engineering Director and is responsible for the sale and final disposition of assets from cancelled projects, WNP-4/5.

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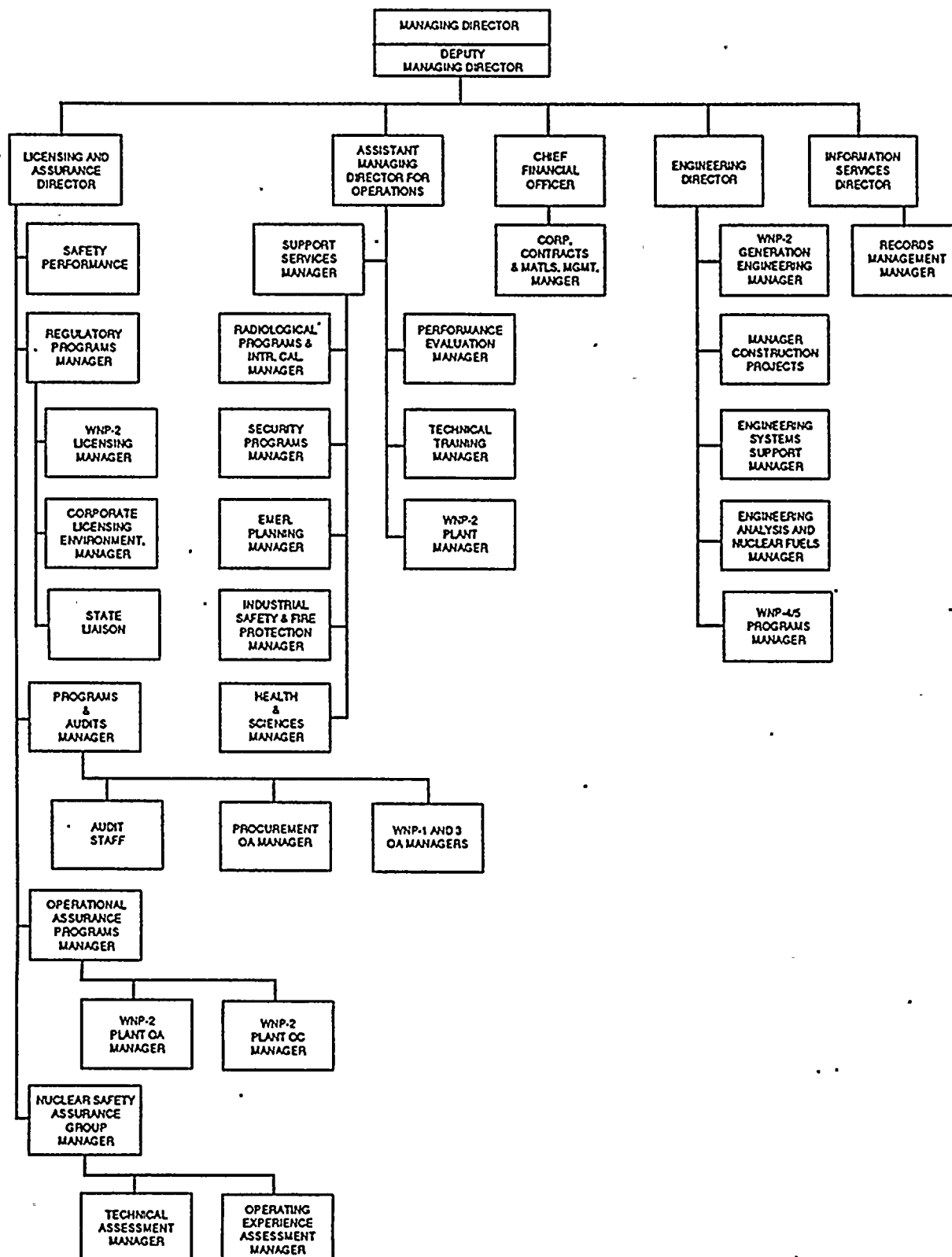
- 1.3.5     The Chief Financial Officer reports to the Managing Director and is responsible for providing procurement and storage control services that are required to support operation and maintenance of Supply System nuclear power plants. To accomplish this role, the Chief Financial Officer operates through the Manager of Corporate Contracts and Materials Management.
- 1.3.5.1   The Manager, Corporate Contracts and Materials Management, reports to the Chief Financial Officer and is responsible for:
- a. Development of corporate level procurement policies and procedures.
  - b. Procurement of items and services in response to approved purchase requisitions.
  - c. Coding, cataloging, handling, storage, shipping, and disposal of procured items.
- 1.3.6     The Director, Information Services, reports to the Managing Director, and is responsible for the Supply System records management program. To accomplish records management responsibilities, the Director, Information Services, operates through the Manager of Records Management.
- 1.3.6.1   The Manager, Records Management, reports to the Director of and Information Services and is responsible for:
- a. Providing program definition and policy development for Supply System records management activities, which includes processing, retrieval, storage and dispositioning of records.
  - b. Providing administrative support functions necessary for the maintenance of corporate manuals and procedures.

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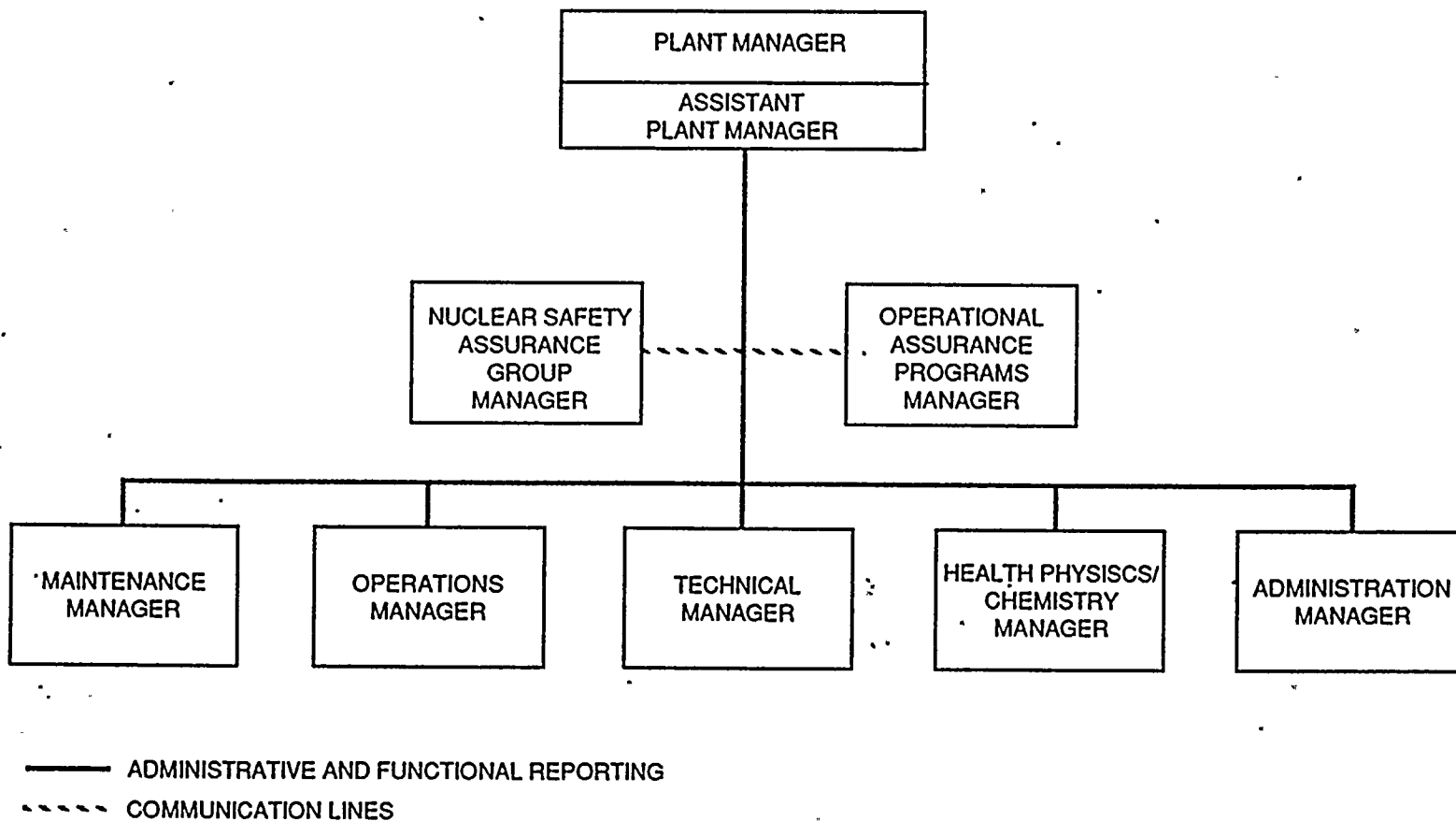
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FIGURE 1-1



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FIGURE 1-2



Supply System Organization  
 Relative To Operational QA



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## 2 - QUALITY ASSURANCE PROGRAM

### 2.1 PURPOSE

This section provides an overall description of the QA Program that will be applied to initial testing and subsequent operation and maintenance activities throughout the life of Supply System nuclear power plants.

### 2.2 GENERAL

2.2.1 The QA Program will be implemented through a series of Nuclear Operation Standards (NOSs) contained in the Supply System Functional Manual for Nuclear Operation. These NOSs, in turn, will be implemented by Supply System organizational procedures, programs or plans which prescribe detailed methods for functional accomplishment. The NOSs will address the applicable requirements of Appendix B to 10CFR50 and Sections 1 through 18 of the QA Program. A matrix of Nuclear Operation Standards cross referenced against each criteria of Appendix B to 10CFR50 is included in Table 2-1. The NOSs and implementing procedures, programs or plans will collectively comply with the Regulatory Positions of QA-related Regulatory Guides as identified and modified in Appendix II, "Position Statements".

2.2.2 A list of safety-related items that will be subject to the applicable controls of the QA Program is included in the Final Safety Analysis Report (FSAR) for the applicable Supply System nuclear power plant. Changes to this listing shall be controlled by the Director of Engineering and approved by the Plant Manager.



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2.2.3 Applicable provisions of the QA Program shall be implemented by the earliest of the following and shall remain in effect for the life of Supply System nuclear power plants:

- a. Prior to inception of the activity.
- b. At the time of temporary/permanent transfer of system/component custody to Test and Startup organization.
- c. Ninety (90) days prior to initial fuel loading.

2.2.4 Revisions to the QA Program will be made by the Licensing and Assurance organization as follows:

- a. Proposed changes to the QA Program will be evaluated to determine whether or not they would result in a reduction of commitments previously accepted by the Nuclear Regulatory Commission (NRC).
- b. Changes that do not reduce the commitments may be implemented prior to forwarding of such changes to the NRC. However, all such changes shall be forwarded to the NRC at least annually.
- c. Changes that do reduce commitments will be forwarded to the NRC for their review and acceptance prior to implementation. Such changes shall be regarded as accepted by the NRC upon receipt of a letter from the NRC to this effect or sixty (60) days after submittal to the NRC, whichever occurs first.

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- 2.2.5 Managers of Supply System organizations responsible for implementing the applicable provisions of the QA Program shall assure that activities that affect safety-related functions of plant items are performed by personnel who have been indoctrinated and trained. The scope, objective, and method of implementing the indoctrination and training program shall be documented. Proficiency of personnel performing activities that affect safety-related functions of plant items shall be maintained by retraining, re-examination, and/or recertifying, as applicable. Methods shall be provided for documenting training.
- 2.2.6 The scope, implementation, and effectiveness of the QA Program is routinely audited by the Licensing and Assurance Organization. Copies of audit reports are presented to Supply System management to provide for assessment of the effectiveness of the QA Program. Additionally, at least once per two (2) years, the Supply System management arranges for an independent evaluation of the adequacy of the scope, implementation, and effectiveness of the QA Program. This is accomplished by knowledgeable personnel outside of Licensing and Assurance Organization to assure achievement of an objective program assessment. Results of these independent evaluations are reported to the Managing Director/Deputy Managing Director.



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TABLE 2-1

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 IMPLEMENTING NUCLEAR OPERATION STANDARDS  
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Nuclear Operation Standards		10CFR50 Appendix B Criterion																	
Number	Title	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
NOS-1	Organization Responsibilities/Charters	X																	
NOS-2	Control of the Functional Manual for Nuclear Operation					X	X												
NOS-3	Operational QA Program Description Control		X			X	X												
NOS-4	Plant Operation and Maintenance Control		X					X	X		X	X	X	X					
NOS-5	Personnel Training, Qualification and Certification		X																
NOS-6	Review Committees					X													
NOS-8	Onsite NSAG	X	X														X	X	
NOS-9	Procedures/Instructions Control					X	X												
NOS-11	Conduct of Licensing Activities					X													
NOS-13	Reporting of Incidents					X											X	X	
NOS-14	Operating Experience Reviews																X	X	
NOS-15	NRC Inspection Reports																X	X	
NOS-18	Plant QA Surveillance Program	X																	X
NOS-19	Plant Quality Control Inspection Program									X									
NOS-20	Audits																		X
NOS-21	ASME Pressure Boundary Work	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
NOS-22	Q-List Control		X	X		X													
NOS-23	Plant Modification Control			X		X													



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7 - CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES

7.1 PURPOSE

This section establishes controls to assure that safety-related items and services, whether purchased directly or through contractors and subcontractors, conform to procurement documents.

7.2 GENERAL

7.2.1 Procedures/instructions shall be established and implemented for the control of purchased materials, equipment, and services. These procedures/instructions shall clearly describe the actions to be accomplished and identify those positions or groups responsible for performing those actions.

7.2.2 Material, equipment, services and spare/replacement parts (other than commercial grade items as defined in 10CFR21) for safety-related structures, systems and components:

- a. Shall have a technical evaluation to assure that requirements for acceptable item(s) are specified in the procurement documents.
- b. Shall be procured from vendors whose quality assurance qualifications have been affirmed, either prior to or after award of the contract, by the corporate Quality Assurance, and
- c. Shall be subject to the quality assurance program controls and to technical requirements at least equal to the original technical requirements or to revised controls that have been properly reviewed and approved.

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7.2.3 Material, equipment, services and spare/replacement parts for safety-related structures, systems and components that are commercial grade items as defined in 10CFR21:

- a. Shall have a technical evaluation to assure that requirements for acceptable item(s) are specified in the procurement documents.
- b. Shall have acceptance methods to provide reasonable assurance the item(s) received is the item(s) which was specified. These may include one or more of the methods of Paragraphs 7.2.4., 7.2.5., or 7.2.6 as specified by the Technical Evaluation.

7.2.4 Evaluation of vendors, including review and concurrence of vendors' QA programs, shall be performed by QA using QA or Engineering personnel competent in determining the ability of vendors to provide acceptable quality products. Source selection will be based on one or more of the following:

- a. The ability of the vendor to comply with those elements of 10CFR50 Appendix B applicable to the type of material, equipment, or services being procured.
- b. A review of previous record and performance of vendors who have provided similar articles of the type being procured.
- c. A survey of the vendor's facilities and QA program to determine his capability to supply a product which meets the design, manufacturing, and quality requirements.





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- 7.2.5 Source verification (vendor surveillance, inspection and audit) shall be commensurate with the relative importance, complexity, and quantity of the items or service procured and the vendor's quality performance. In-process and final surveillance requirements of vendor products shall be determined in advance and performed to assure conformance with procurement document requirements. Source verification is not required to be performed where the quality of the item can be verified by review of test reports, inspection upon receipt, or other means. Source verification activities shall include evaluation of vendor furnished Certificates of Conformance and/or vendor's Certification System.
- 7.2.6 Receiving inspection of vendor furnished items shall be performed to assure that:
- a. The item is properly identified and corresponds to the identification on the procurement document and the receiving documentation.
  - b. The item and the acceptance records satisfy the inspection instruction prior to relying upon the item to perform its safety function.
  - c. Specified inspection, test, and other records are complete and available at the site prior to relying upon the item to perform its safety function.
  - d. Inspection status of accepted items is identified prior to their being released for storage, use or further work.
- 7.2.7 Documentary evidence that the vendor furnished items conform to the procurement requirements shall be retained at the site for the life of the items.



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APPENDIX I

QUALIFICATION REQUIREMENTS

The minimum qualification requirements for key Licensing & Assurance personnel that will be met at the time of initial core loading or appointment to the active positions are as follows:

I.1 Licensing & Assurance Director

- a. Education: Bachelor Degree or equivalent\* in Engineering or related science.
- b. Experience: Ten (10) years experience in the field of quality assurance, or equivalent number of years of nuclear industry experience in a management position or a combination of the two. The requirement that the director have at least two years of experience in the administration of and adherence to the Quality Assurance Program in a significant management role directly involving nuclear power plants is being deleted.

Because the director's duties encompass a much broader range of responsibilities than administration of the QA Program, it is not considered desirable, nor appropriate, to limit the choice of candidates to only those who have had detailed involvement in the administration of the QA Program.

I.2 Operational Assurance Programs Manager

- a. Education: Bachelor Degree or equivalent\* in Engineering or a related science.

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QUALIFICATION REQUIREMENTS

- b. Experience: Six (6) years experience in the field of quality assurance, or an equivalent number of years of nuclear plant experience in a supervisory position, preferably at an operating nuclear plant, or a combination of the two. At least two (2) years of this six (6) years experience shall be nuclear power plant experience in the implementation of the quality assurance program.

I.3 Plant Quality Assurance Manager

- a. Education: Bachelor Degree or equivalent\* in Engineering or related science.
- b. Experience: Four (4) years experience in the field of quality assurance, or an equivalent number of years of nuclear plant experience in a supervisory position, preferably at an operating nuclear plant, or a combination of the two. At least one (1) year of this four (4) years experience shall be in the implementation of the quality assurance program.
- c. Training: Shall have acquired familiarization and working knowledge of plant systems, facilities, plans, and programs necessary for the performance of assigned functions in a safe and competent manner.

I.4 Plant Quality Control Manager

- a. Education: Bachelor Degree or equivalent\* in Engineering or related science.



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APPENDIX I

QUALIFICATION REQUIREMENTS

- b. Experience: Four (4) year experience in the field of quality assurance and/or quality control, or an equivalent number of years of nuclear plant experience in a supervisory position, preferably at an operating nuclear plant, or a combination of the two. At least one (1) year of this four (4) years experience shall be in the implementation of the quality assurance/control program.
- c. Training: Shall have acquired familiarization and working knowledge of plant systems, facilities, plans, and programs necessary for the performance of assigned functions in a safe and competent manner.

\*Equivalency will be determined based upon an evaluation of the following factors:

1. High school diploma or GED.
2. Sixty (60) semester hours of related technical education taught at the college level (900 classroom or instructor conducted hours).
3. Qualified as an NRC senior operator at the assigned plant.
4. Four (4) years of additional experience in his area of responsibility.
5. Four (4) years of supervisory or management experience.
6. Demonstrated ability to communicate clearly (verbally and in writing).
7. Certification of academic ability and knowledge by corporate management.
8. Successful completion of the Engineer-In-Training examination.
9. Professional Engineer License.
10. Associated degree in Engineering or a related science.