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WASHINGTON PUBLIC POWER
SUPPLY SYSTEM

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**OPERATIONAL
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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

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ultimate Supply System authority on matters involving quality. The Managing Director/Deputy Managing Director operates through the Assistant Managing Director, Operations; the Director, Engineering; the Director, Projects; the Director, Quality Assurance; the Director, Information, 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, Quality Assurance reports to the Managing Director and is directly responsible for the definition, direction, and effectiveness of the overall Quality Assurance Program during design, construction, and operation phases of all Supply System nuclear power plants. Major functions of the Quality Assurance organization are:

- a. Establishing and maintaining assurance programs, Nuclear Operation Standards, and directorate procedures which incorporate nuclear safety considerations and comply with the Quality Assurance (QA) criteria delineated in Appendix B to 10CFR 50.
- b. Assuring through reviews, surveillances, assessments, inspections, and audits that Supply System and its suppliers' activities are being performed in a safe and legal manner 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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- d. Stopping unsatisfactory work and controlling further processing, delivery, or installation of nonconforming material.
- e. Establishing and maintaining adequate and qualified assurance staffing levels based on workload analysis.
- f. Providing trending of deficiencies to identify areas where corrective actions have not minimized recurrence.
- g. Establishing, maintaining, and controlling the Operational QA Program Description (WPPSS-QA-004) and the Supply System Functional Manual for Nuclear Operation.
- h. Certifying Supply System examination personnel for non-destructive examinations (NDE).
- i. Qualifying and certifying Supply System QC inspection and test personnel.
- j. Acquiring and maintaining ASME Certificates of Authorization and/or Owners Certificates.
- k. Ensuring that a written agreement with an Authorized Inspection Agency is obtained to provide for Authorized Nuclear In-Service Inspection Services.
- l. Reviewing in-house and external events for determination of cause and necessary corrective action to minimize potential for recurrence at Supply System nuclear facilities.



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- m. Supporting the Corporate Nuclear Safety Review Board (CNSRB) in its activities as defined by the Technical Specifications.

The Director, Quality Assurance has effective communication channels with all Supply System senior management positions and has no duties or responsibilities unrelated to quality/safety assurance. To accomplish the above defined role, the Director, Quality Assurance operates through the Manager, Quality Assessments and the Manager, Quality Support.

The qualification requirements for this position are as described in Appendix I, Qualification Requirements.

- 1.3.2.1 The Manager, Quality Assessments reports to the Director, Quality Assurance and is responsible for 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 are being implemented.

The Manager, Quality Assessments 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 Manager, Quality Assessments has no duties or responsibilities unrelated to quality assurance matters and has effective communication channels with all plant supervisory and management personnel.

Qualification requirements for this position are described in Appendix I, Qualification Requirements. The Manager, Quality Assessments is specifically responsible for:

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- a. Assuring through reviews, surveillances, assessments, inspections, and audits that Supply System activities are being performed in a safe and legal manner in accordance with written and approved documents which comply with applicable requirements defined by the assurance programs and Nuclear Operation Standards.
- b. Providing in-plant QC functions necessary to verify that all needed examinations of material, equipment, and workmanship are made and evaluated to assure appropriate quality standards are met.
- c. Stopping unsatisfactory work and controlling further processing, delivery, or installation of nonconforming material.
- d. Certifying Supply System examination personnel for nondestructive examination (NDE).
- e. Qualifying and certifying Supply System QC inspection and test personnel.
- f. 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, Quality Assessments accomplishes this role through the Manager, Plant Assessments; the Manager, Plant Support Assessments; the Manager, Plant Quality Control; and the Manager, WNP-1 and WNP-3 Quality Assurance.

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- 1.3.2.1.1 The Manager, Plant Assessments and the Manager, Plant Support Assessments are directly responsible for performing internal Supply System quality assurance functions that are necessary to verify that the QA Program is being effectively implemented. This includes maintaining a sufficient number of qualified auditors to perform QA audits, as required.

Each 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, either 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 these two positions are described in Appendix I, Qualification Requirements. The Manager, Plant Assessments and Plant Support Assessments, are specifically responsible for:

- a. Reviewing and concurring with documents affecting safety, including changes thereto, to assure that applicable quality assurance requirements have been identified and specified therein. Documents subject to review and concurrence by Quality Assurance 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; and nonconformance and corrective action reports.



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- b. Reviewing and concurring with programs, procedures, and/or instructions (including changes thereto) of off-site Supply System organizations to assure that they are clear, address applicable quality assurance requirements, and are technically acceptable prior to approval for release.
- c. Verifying internal Supply System activities to assure that they are being conducted in a safe and legal manner in accordance with approved programs, plans, procedures, or instructions. Such verifications will be in the form of audits, technical assessments, or quality assurance surveillances. Included in the scope of these verifications 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; (iii) activities associated with the implementation of security, fire protection, and radiological protection programs; and (iv) activities including engineering, maintenance, modifications, operational problem resolution, technical support activities, and operational analysis that affect plant nuclear safety and reliability.
- d. Performing independent design, functional, and safety evaluations.
- e. Performing quality assurance audits, surveillances, technical assessments, and inspections of Supply System organizations and on-site external organizations (e.g., the engineering and maintenance support contractors).
- f. Developing evaluation schedules and selecting qualified personnel to perform the activities of this function.



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- g. Certifying Audit Team Leaders.
- h. Training Quality Assurance personnel.
- i. Forwarding evaluation reports to the management positions responsible for the areas assessed and the Chairman of the Corporate Nuclear Safety Review Board for review, assessment, and/or correction of identified deficiencies.
- j. Maintaining QA verification records.
- k. Supply System initiated SSFI reviews and other similar plant safety system operability reviews.

Each Manager will be responsible for performance of the above activities within certain functional areas.

1.3.2.1.2 The Manager, Plant Quality Control (QC) reports to the Manager, Quality Assessments and is directly responsible for performance of in-plant QC functions. In accomplishing this role, the Manager, Plant QC is responsible for:

- a. Evaluating 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, repair, and testing.



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- c. Performing and evaluating the inspections, examinations, and/or measurements established.
- d. Assuring that proper staffing is available to meet plant workloads.

Qualification requirements for this position are described in Appendix I, Qualification Requirements.

1.3.2.1.3 The Manager, WNP-1 and WNP-3 QA reports to the Manager, Quality Assessments and is primarily concerned with assuring that the records and equipment of the projects are maintained such that they may be shown to meet quality standards on restart.

1.3.2.2 The Manager, Quality Support reports to be Director of Quality Assurance and is responsible for integrating and directing nuclear safety assurance and quality evaluations of technical and operational activities, procurement quality assurance, receiving inspection, event analysis, and industry operating experience screening and review. These activities 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.

Qualification requirements for this position are described in Appendix I, Qualification Requirements. The Manager, Quality Support is specifically responsible for:

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- a. Vendor qualification, review, and concurrence with vendor furnished programs and procedures; and source verifications (e.g., surveillances, inspections, and audits at vendor facilities).
- b. Performing receipt inspection of materials and equipment received by the Supply System.
- c. Screening and evaluating industry and in-plant operating experience, including recommendations for improvements in overall plant performance.
- d. Evaluating and determining the root cause of plant-related events, including human performance factors.
- e. Performing trending of deficiencies to ensure corrective actions have been effective minimized recurrence.
- f. Assessing programs, processes and activities of various functional areas and operations that affect plant nuclear safety and reliability.

The Manager, Quality Support accomplishes this role through the Manager, Procurement Quality Assurance; the Manager, Operating Events Analysis and Resolutions; and the Manager, Nuclear Safety Assurance Division.

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

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quality standards. In addition, he provides evaluations of internal Supply System activities related to procurement storage and issuance of parts, materials, and services to assure implementation of QA Program and management requirements. The Manager, Procurement Quality Assurance is specifically responsible for:

- a. Reviewing and concurring with procurement procedures and documents for items and services.
- b. Establishing vendor witness points for inspection and release of material/equipment for shipment.
- c. QC receipt inspection of materials and equipment received by the Supply System.
- d. Establishing and maintaining evaluated vendors list.
- e. Planning, coordinating, and performing source surveillances, source inspections, and external audits to verify implementation of vendors' QA/QC programs.
- f. Reviewing and approving vendor furnished QA/QC procedures and programs.
- g. Performing internal audits and surveillances of Materials Management organization.
- h. Reviewing for acceptance other utility audits furnished through the Nuclear Procurement Issues Committee (NUPIC).

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- i. Periodic verification (using audits, technical assessments, or surveillances) of the adequacy and implementation of the QA Program and management requirements applicable to procurement; storage; and issuance of parts, materials, and services.

1.3.2.2.2 The Manager, Operating Events Analysis and Resolutions reports to the Manager, Quality Support and is responsible for:

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

1.3.2.2.3 The Manager, Nuclear Safety Assurance Division reports to the Manager, Quality Support and is responsible for providing the Independent Safety Engineering Group (ISEG) functions involving:

- a. Assessing programs, processes and activities including engineering, maintenance, modifications, operational problems, technical support activities and operational analysis that affect plant nuclear safety and reliability.
- b. Assessing plant operations and performance regarding conformance to regulatory requirements.



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- c. Evaluating industry operating experience, including recommendations for improvements in overall plant performance involving plant practices, procedures and equipment.
- d. Providing certain key operating experience information to operators and other plant personnel.

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

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To accomplish this role, the Assistant Managing Director, Operations operates through the Plant Managers, the Nuclear Training Manager, the Support Services Manager, the WNP-2 Projects Manager, the Planning and Controls Manager, the Corporate Chemist, and the Corporate Radiological Health Officer.

1.3.3.1 The Plant Manager for each of the Supply System nuclear power plants reports to the Assistant Managing Director, 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, modification, inspection, 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. Qualifying and training plant staff.
- d. Initiating and approving purchase requisitions.
- e. Controlling purchased equipment and materials intended for plant use.
- f. Ensuring calibrated measuring and test equipment (including installed instruments covered by the Plant Technical Specifications) is utilized at WNP-2.



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- g. Dispositioning of nonconforming items.
- h. Controlling and maintaining on-site operations records.
- i. Implementing the in-service inspection program.

The Plant Manager operates through the Operations Division Manager, the Maintenance Division Manager, the Technical Services Division Manager, and the Radiation Protection 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, Nuclear Training reports to the Assistant Managing Director, Operations and is responsible for nuclear training policy, implementation, and records management for nuclear plant operations.

1.3.3.3 The Manager, Support Services reports to the Assistant Managing Director, 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 health physics, safeguards and physical security, industrial safety and fire protection, fitness for duty, emergency preparedness, and environmental monitoring for WNP-2. To accomplish this role, the Manager, Support Services operates through the Manager, Health, Safety, and Fire Protection; the Manager, Security Programs; the Manager, Emergency Planning; the Manager, General Services; the Manager, Plant Services; and the Manager, Health Physics.



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- 1.3.3.3.1 The Manager, Health, Safety, and Fire Protection reports to the Manager, Support Services and is responsible for developing and maintaining a health, safety, and fire protection program and supporting plant management in implementing these programs. This includes training dealing with fitness for duty, personnel health and safety, occupational health, and fire loss prevention and protection.
- 1.3.3.3.2 The Manager, Security Programs reports to the Manager, Support Services and is responsible for overall Supply System security activities. The Manager, Security Programs is specifically responsible for:
- a. Administering a security program which includes preemployment screening, physical security surveys and investigations, and loss prevention.
 - b. Managing the security force by assuring that physical security is consistent with needs and is maintained within individual plant safeguards security plans.
 - c. Providing training, administrative, and technical support to the Plant Manager in the area of plant security.
- 1.3.3.3.3 The Manager, Emergency Planning reports to the Manager, Support Services and is responsible for developing and maintaining an emergency response program that includes plans, implementing procedures, training, and drills and exercises.
- 1.3.3.3.4 The Manager, General Services reports to the Manager, Support Services and is responsible for:



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- a. Developing and maintaining a facility planning program that establishes a process for meeting annual facility needs, including the ability to respond to immediate high priority issues. This effort also includes a long-term (5-7 year) planning effort.
- b. Providing a facility and equipment maintenance program which includes automobiles, standby power generators (ex-plant), and other heavy equipment. This responsibility also includes equipment replacement as appropriate.
- c. Developing and maintaining administrative support skills to augment word processing capabilities throughout the Supply System.

1.3.3.3.5 The Manager, Plant Services reports to the Manager, Support Services and is responsible for:

- a. Developing and maintaining a laboratory services program to provide support to the plant in the area of environmental studies.
- b. Developing and maintaining a program and facility to provide for central instrument maintenance and calibration.

1.3.3.3.6 The Manager, Health Physics reports to the Manager, Support Services and is responsible for the development, maintenance, and implementation of a health physics program to provide support to WNP-2 in the areas of radiological assessment, including personnel dosimetry; the Off-Site Dose Calculation Manual (ODCM); site meteorology; routine and nonroutine dose calculations, including the methodology; and radiological monitoring and nonradiological monitoring.

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- 1.3.3.4 The Manager, WNP-2 Projects reports to the Assistant Managing Director, Operations and is responsible for the management of major plant modifications, maintenance tasks, and contractor support. In addition, the Manager, WNP-2 Projects provides integrated planning, estimating, scheduling, and monitoring for WNP-2 projects and programs; and provides project management of focused technical studies on operational improvement and/or uprating of operational power plants.
- 1.3.3.5 The Manager, Planning and Controls reports to the Assistant Managing Director, Operations and is responsible for long range planning, budgeting, cost control business planning, and performance indicator reporting.
- 1.3.3.6 The Corporate Chemist reports to the Assistant Managing Director, Operations and is responsible for policy development, oversight, and integration of matters pertaining to chemistry at WNP-2.
- 1.3.3.7 The Corporate Radiological Health Officer reports to the Assistant Managing Director, Operations and is responsible for policy development, oversight, and integration of all matters relating to radiological protection and health physics.
- 1.3.4 The Director, Engineering reports to the Managing Director and is responsible for providing project engineering and design control, reactor safety evaluation, nuclear analysis, nuclear fuel supply, and maintenance/surveillance engineering support as required for each Supply System nuclear plant. The Director, Engineering is specifically responsible for:
- a. Providing project engineering for projects under construction and preservation management and engineering for mothballed projects.



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- b. Providing design and engineering for operating plant design changes and modifications.
- c. Providing programs for pre-service inspection, in-service inspection, and nondestructive 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.
- h. 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.
- i. Providing licensing support functions in such areas as acquisition and maintenance of nuclear power plant construction permits and operating licenses.

The Director, Engineering operates through the Manager, Design Engineering; Manager, Engineering Services; Manager, Engineering Programs; Manager, WNP-1 and WNP-3 Engineering; Manager, Engineering Management Support; and Manager, Regulatory Programs.

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1.3.4.1 The Manager, Design Engineering reports to the Director, Engineering and is directly responsible for:

- a. Developing and implementing design control programs and processes by which design and design document content is defined, controlled, and verified.
- b. Managing the direct engineering and design for plant operation through retention of expert technical knowledge of plant systems, structures, and components.
- c. Managing engineering subcontractors for engineering design and other consulting services.
- d. Structural design, stress analysis, and specialized ASME Code expertise for plant pressure retaining systems and their supporting structures.
- e. Geological studies programs to determine the acceptability of plant sites and seismic design bases.

1.3.4.2 The Managers, WNP-1 and 3 Engineering report to the Director, Engineering and are directly responsible for:

- a. Preservation of WNP-1 and WNP-3 design assets in a state of readiness for resumed construction.
- b. Project engineering in preparation for resumption of active construction projects.



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- c. Developing technical criteria, requirements, and specifications.
- d. Managing Architect Engineer (A/E) activities relative to development of design, implementation of licensing commitments, and testing.
- e. Approving all design phase related license and permit commitments and assuring conformance to these commitments in equipment and design contracts.
- f. Discharging the site-specific technical duties and responsibilities required of an ASME N-Certificate holder and for the Owner's Certificate of Authorizations.
- g. Technical support of plant startup and certification of plant systems readiness for operation.
- h. Preparing pre-service and in-service inspection programs for WNP-1/3.

1.3.4.3 The Manager, Engineering Programs reports to the Director, Engineering and is directly responsible for engineering support to WNP-1 and WNP-3 Engineering and for providing staff support to Design Engineering for:

- a. Performing 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.



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- 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. Managing Master Equipment List (MEL), Safety Related Material (SRM), Class 1 Electrical (C1E), Restricted Use Equipment List (RUEL) data base, and other engineering data bases.

1.3.4.4 The Manager, Engineering Services reports to the Director, Engineering and is directly responsible for:

- a. The supply, engineering, and efficient in-core management of nuclear fuel for each nuclear plant.
- b. Transient analysis and licensing issue resolution to support technical specification changes and reload fuel licensing.
- c. Reliability and availability analyses to improve plant performance, safety, and maintainability.
- d. Engineering support for plant computer system's software configuration control.

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- e. Managing engineering support for plant operation through retention of expert technical knowledge of plant-specific analysis and requirements for continued plant operation.
- f. Managing responses to and resolution of emergent plant operation issues, safety analyses, and regulatory concerns.

1.3.4.5 The Manager, Engineering Management Support reports to the Director, Engineering and is responsible for:

- a. Interfacing with site organizations to coordinate and integrate engineering programs and support functions.
- b. Managing a single administrative process by which all engineering-related activities and commitments are assigned, scheduled, tracked, and dispositioned. 25
- c. Implementing configuration control by establishing site-specific policy, procedures, and methods that allow control and accountability.
- d. Managing design and drafting services to support plant modifications and design engineering.
- e. Monitoring the performance of engineering organizations relative to costs, accomplishments, and adequacy of support to dependent organizations.

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1.3.4.6 The Manager, Regulatory Programs reports to the Director, Engineering and is responsible for:

- a. Acquiring and maintaining operating licenses of Supply System nuclear power plants.
- b. Establishing and maintaining 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, or AE personnel prior to transmittal.
- d. Tracking licensing commitments and taking action necessary to assure that they are being met in a timely manner.
- e. Maintaining awareness of changing licensing requirements.
- f. Providing coordinated development of responses and comments to new laws, regulations, regulatory guides, and other regulatory issuances.

1.3.5 The Director, Projects reports to the Managing Director and is responsible for providing project management support for each Supply System nuclear plant. The Director, Projects is specifically responsible for:

- a. Providing project management for power projects under construction and preservation management for mothballed power projects.



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- b. Providing project management for disposition of assets from terminated power projects and disposition of major assets surplus to operating power projects.
- c. Providing for site restoration for power project sites which are to be abandoned.
- d. Providing specialized project management for major construction projects which results in off-line completion of major additions to operating plants and support facilities.
- e. Providing specialized project management for major procurement acquisitions for operating power plants.

The Director, Projects operates through the Manager, WNP-1/3 Project Manager; Manager, Simulator Projects; and Manager, Special Projects.

1.3.5.1 The WNP-1/3 Project Manager reports to the Director, Projects and is directly responsible for:

- a. WNP-1, WNP-3, and HGP site preservation, including preservation of licenses, permits, agreements, and overall assets in a state of readiness for resumed construction.
- b. Project management in preparation for resumption of active construction projects.

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c. Approval of all construction phase-related license and permit commitments and assuring conformance to these commitments in equipment and design contracts.

d. Sale and final disposition of assets from canceled projects WNP-4/5.

1.3.5.2 The Manager, Simulator Projects reports to the Director, Projects and is directly responsible for:

a. Technical maintenance of the current simulator to support operator testing.

b. Overall project and technical management for the procurement of the replacement simulator.

c. Certification of the replacement simulator to applicable federal standards.

1.3.5.3 The Manager, Special Projects reports to the Director, Projects and is directly responsible for:

a. Major construction, procurement and technical project management supporting operating power plants and facilities.

b. Technical and project management for focused activities which are intended to improve operating plant output and reliability.



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- 1.3.6 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, Procurement and Materials Management.
- 1.3.6.1 The Manager, Procurement and Materials Management reports to the Chief Financial Officer and is responsible for:
- a. Development of Supply System procurement policies and procedures.
 - b. Procurement of items and services in response to approved purchase requisitions.
 - c. Coding, cataloguing, handling, storage, shipping, and disposal of procured items.
- 1.3.7 The Director, Information reports to the Managing Director, and is responsible for the Supply System Information management program. To accomplish information management responsibilities, the Director, Information operates through the Managers of Records Management, Information Systems, Telecommunications Services, and Data Administration and Information Planning.
- 1.3.7.1 The Manager, Records Management reports to the Director, Information and is responsible for:



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- 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.

1.3.7.2 The Manager, Information Systems reports to the Director, Information and is responsible for:

- a. Establishing appropriate data processing services, standards and procedures to support information processing needs.
- b. Providing support services, as needed.

1.3.7.3 The Manager, Telecommunications Services reports to the Director, Information and is responsible for:

- a. Installation and maintenance of telephone systems and services.
- b. Radio Systems Design, Maintenance and Licensing of an extensive radio network.
- c. Local Area Network (LAN) transmission.
- d. Facsimile, CCTV/Audio, Telex and Public Address/Area Wide Alerting/Siren Systems design, installation and maintenance, as appropriate.



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- e. Electronic Key Card Access design and expansion capabilities.

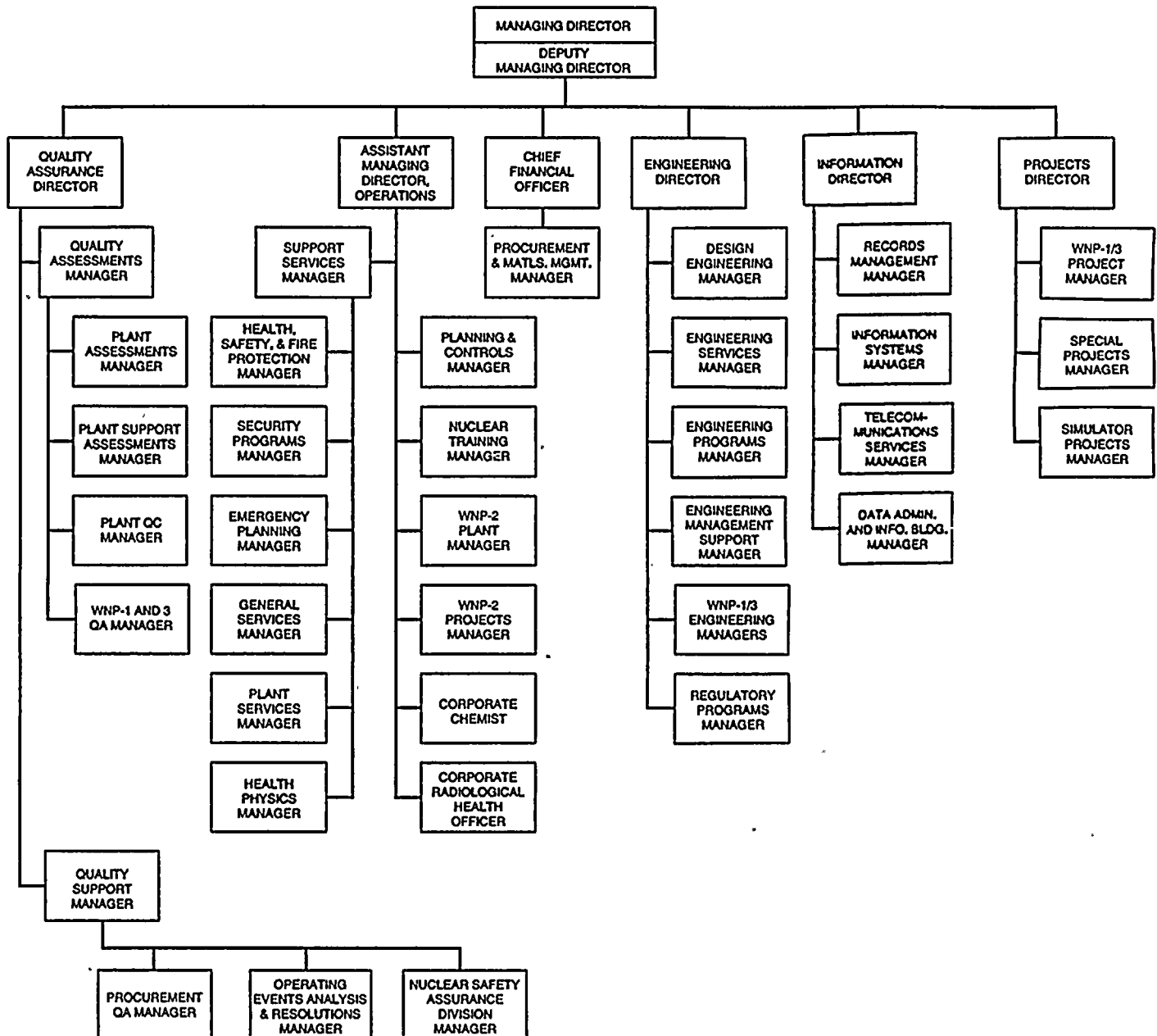
1.3.7.4 The Manager, Data Administration and Information Planning reports to the Director, Information and is responsible for:

- a. Providing data and database administration services, standards and procedures to support data management and centralized information planning to facilitate integration of information activities.



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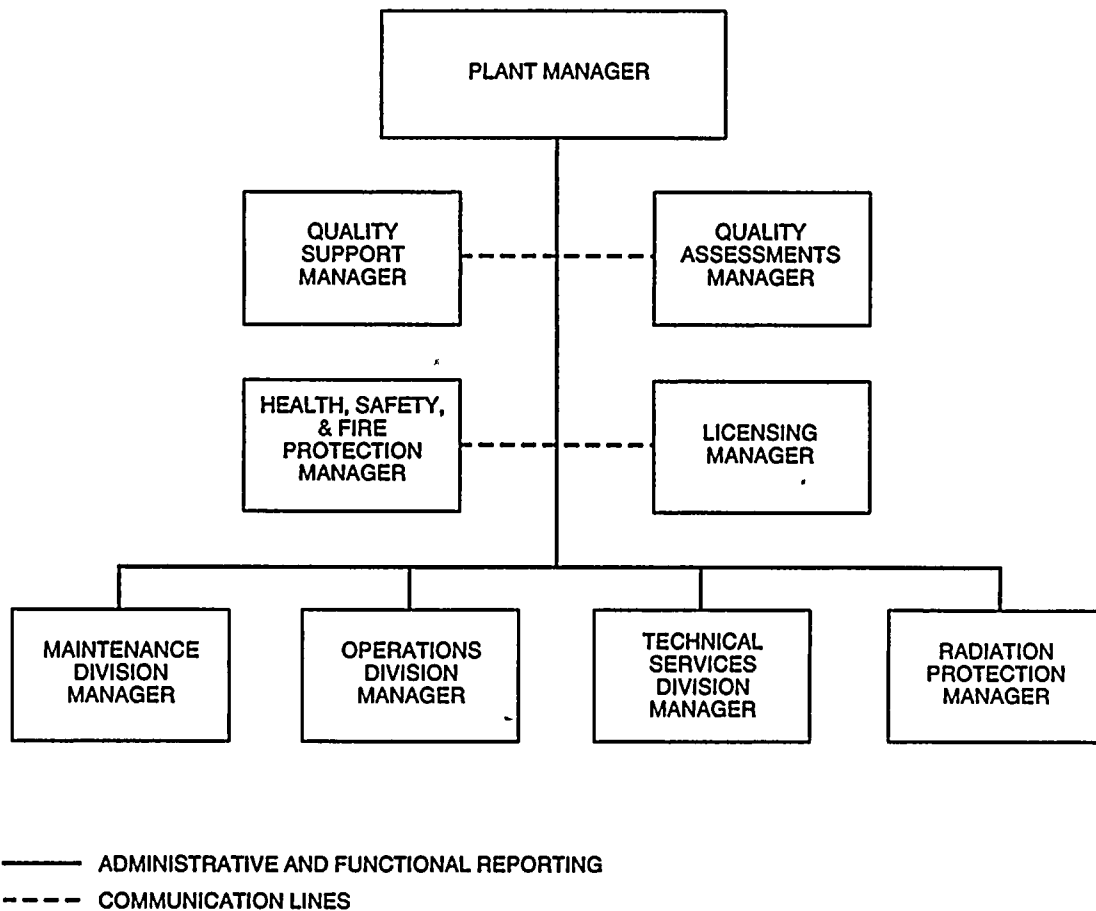
FIGURE 1-1



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FIGURE 1-2



**Supply System Organization
Relative To Operational QA**

890853.2



**OPERATIONAL
QUALITY ASSURANCE PROGRAM DESCRIPTION****2 - QUALITY ASSURANCE (QA) PROGRAM**

- 2.1 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. In turn, these NOSs 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 10CFR 50 and Sections 1 through 18 of the QA Program. A matrix of Nuclear Operation Standards cross referenced against each criteria of Appendix B to 10CFR 50 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, 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 Quality 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 such changes to the NRC. However, all such changes shall be forwarded to the NRC at least annually.
- c. Changes that 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 Quality 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 the Quality 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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OPERATIONAL QUALITY ASSURANCE PROGRAM DESCRIPTION

TABLE 2-1

OPERATIONAL QA PROGRAM DESCRIPTION IMPLEMENTING NUCLEAR OPERATION STANDARDS (Page 1 of 1)

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	Organizational Responsibilities/Changes	X																	
NOS-2	Control of the Functional Manual for Nuclear Operation	X				X	X												
NOS-3	Operational QA Program Description Control	X					X												
NOS-4	Plant Operations and Maintenance Control	X		X			X		X	X			X	X	X				
NOS-5	Personnel Training, Qualification and Certification	X	X								X								
NOS-6	Review Committees (CNSRB & POC)	X																	
NOS-8	Nuclear Safety Assurance Assessment Program	X																	
NOS-9	Procedures/Instructions Control	X		X		X	X												
NOS-11	Conduct of Licensing Activities	X					X												
NOS-13	Reporting of Incidents	X		X															
NOS-14	Operating Experience Review	X																	
NOS-15	NRC Inspection Reports	X																	
NOS-19	Plant QC Inspection Program	X								X	X								
NOS-20	Quality Assurance Evaluations	X														X	X		X
NOS-21	ASME Pressure Boundary Work	X		X			X	X	X	X	X	X		X	X				
NOS-22	Q-List Control	X		X															
NOS-23	Plant Modification Control	X		X			X					X							
NOS-24	Control of Records	X																X	
NOS-26	Computer Software QA	X		X			X												
NOS-27	Procurement and Storage Control	X			X		X	X						X					
NOS-30	Control of Nonconformances and Corrective Action	X		X			X								X	X	X		
NOS-32	Configuration Management Program	X		X			X												
NOS-33	Inservice Inspections	X					X			X	X	X							
NOS-34	Inservice Testing of Pumps and Valves	X					X					X							
NOS-35	Nuclear Materials Control	X														X			
NOS-36	Chemistry	X														X			
NOS-37	Rad. Environmental Mon. Program	X														X			
NOS-39	Fire Protection Program	X														X			
NOS-40	Radioactive Waste Management	X																	
NOS-41	QA Program for Radioactive Materials Shipping Packages	X																	
NOS-43	Nuclear Plant Security	X	X	X			X									X			
NOS-45	Simulator Certification	X	X	X			X					X				X			
NOS-47	Application of 10CFR 50.59 Requirements	X	X	X			X					X							



**OPERATIONAL
QUALITY ASSURANCE PROGRAM DESCRIPTION****9 - CONTROL OF SPECIAL PROCESSES****9.1 PURPOSE**

This section sets forth requirements for special process activities which affect safety-related structures, systems, and components.

9.2 GENERAL

9.2.1 Special processes are those that require interim in-process controls in addition to final inspection and/or examination to assure achievement of required quality.

9.2.2 Procedures/instructions shall be established and implemented to assure adequate performance and control of special processes such as welding, heat treating, non-destructive testing, and chemical cleaning. These procedures/instructions shall contain provisions for:

- a. Qualifying the personnel, equipment, and procedures to be utilized for performing special processes.
- b. Documenting the evidence (inspection or process results) of acceptable performance of special processes.

9.2.3 Special processes shall be performed by qualified personnel utilizing qualified procedures and qualified equipment in accordance with applicable codes, standards, and specifications. For special processes not covered by existing codes or standards, the necessary qualifications of personnel, procedures, and equipment shall be defined in appropriate documents.





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- 9.2.4 Procedures, equipment, and personnel to be utilized for the performance of special processes shall be qualified/certified by authorized personnel from applicable organizations (e.g., Quality Assurance, Engineering, and Plant organizations, etc.).
- 9.2.5 Qualification records of procedures, equipment, and personnel associated with special processes shall be established, filed, and maintained.



(b) (5) DPP, (b) (5) ACP, (b) (5) ADP



**OPERATIONAL
QUALITY ASSURANCE PROGRAM DESCRIPTION****10 - INSPECTION****10.1 PURPOSE**

This section sets forth requirements for inspection of activities that affect safety-related functions of plant items.

10.2 GENERAL

10.2.1 Inspections which provide assurance that safety-related plant items and activities conform to applicable specifications, drawings, codes, standards, and regulations, shall be performed and documented in accordance with written and approved procedures, instructions or check lists.

10.2.2 Inspection procedures, instructions or check lists will, as appropriate, provide for:

- a. Date inspection performed
- b. Description of inspection method
- c. Identification of characteristics and activities to be inspected.
- d. Acceptance or rejection criteria
- e. Identification of required procedures, drawings and specifications.
- f. Specifying necessary measuring and test equipment including accuracy requirements



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g. Identity of inspector and/or data recorder.

10.2.3 Inspections shall be performed by individuals other than those who performed or directly supervised the activity being inspected. Inspections, in general, will be performed by or under the supervision of the Supply System Quality Assurance organization. However, personnel from the performing groups (Operations, Maintenance, Technical, Test and Startup, etc.) may be utilized for performing certain inspections associated with normal plant operation. When such is the case, the related work procedures shall require (a) demonstration of correct performance of the work through a functional test where the work involves breaching a pressure retaining boundary, and (b) review and concurrence by the Supply System Quality Assurance organization of qualification criteria of inspection personnel prior to initiation of inspection activity.

10.2.4 Individuals performing inspections shall be qualified and the status of their qualifications shall be maintained current.

10.2.5 Where mandatory inspection holdpoints are identified in pertinent documents, work shall not proceed beyond those holdpoints without the consent of the responsible inspection personnel or group.

10.2.6 Inspection results shall be documented, evaluated, and their status recorded.



**OPERATIONAL
QUALITY ASSURANCE PROGRAM DESCRIPTION****15 - NONCONFORMING MATERIALS, PARTS, OR COMPONENTS****15.1 PURPOSE**

This section sets forth requirements for the control of safety-related items, services, or activities which do not conform to specified requirements.

15.2 GENERAL

15.2.1 Measures shall be established to control nonconforming items to prevent their inadvertent use or installation. These measures shall include, as appropriate, procedures/instructions for identification, review, documentation, segregation, disposition, approval, and notification to affected organizations of nonconforming items.

15.2.2 Measures shall be established and documented defining the responsibility and authority for determining and approving the disposition of nonconforming items.

15.2.3 Nonconformances shall be documented. This documentation shall:

- a. Clearly identify the nonconforming item; and
- b. Describe the nonconformance, the disposition of nonconformance, and inspection/test requirements (where applicable).



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- 15.2.4 Nonconforming items shall be reviewed and accepted for use-as-is, rejected, repaired, or reworked in accordance with documented procedures/instructions. The Supply System Quality Assurance organization shall review nonconformances to assure that dispositions have been evaluated and approved.
- 15.2.5 Acceptability of repaired, reworked and replaced item shall be verified and documented by inspecting and/or testing the item in accordance with original inspection and/or test requirements or approved alternatives.
- 15.2.6 Where feasible, nonconforming items shall be segregated from other acceptable items and/or uniquely identified as nonconforming until properly dispositioned for use.
- 15.2.7 Reports of nonconformances shall be periodically analyzed by the Supply System Quality Assurance organization to identify quality trends. Significant results shall be referred to appropriate management for review and assessment.

**OPERATIONAL
QUALITY ASSURANCE PROGRAM DESCRIPTION****18 - AUDITS****18.1 PURPOSE**

This section sets forth requirements for auditing to verify implementation and determine the effectiveness of the QA Program.

18.2 GENERAL

18.2.1 A comprehensive system of planned and documented audits by the Quality Assurance organization, shall be carried out to verify compliance with applicable aspects of the QA Program. These audits shall consist of both internal audits of Supply System's nuclear power plants and other Supply System organizations and external audits of Supply System vendors performing activities covered by the QA Program.

18.2.2 Audits shall include the objective evaluation of work areas, activities, processes, and items; review of documents and records; and quality-related practices, procedures and instructions to determine the effectiveness of implementation of the QA Program.

18.2.3 Audits shall be scheduled based upon the status and safety importance of the activities.

18.2.4 Audits shall be performed in accordance with written procedures or check lists and conducted by appropriately trained personnel not having direct responsibilities in the areas being audited.





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- 18.2.5 Audit results shall be documented by auditing personnel and reviewed by management having responsibility in the area audited.
- 18.2.6 Follow-up action on deficiencies shall be accomplished.



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

I.1 Quality Assurance Director

- a. Education: Bachelor Degree or equivalent* in Engineering or a 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 Quality Assessments and Quality Support Managers

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



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APPENDIX IQUALIFICATION REQUIREMENTS

- b. Experience: Four (4) years experience in the field of quality assurance, or 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) of these four (4) years of experience shall be nuclear power plant experience in the implementation of the quality assurance program.

I.3 Plant Quality Control Manager

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

*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.



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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.



3 17 4 5

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

OPERATIONAL
QUALITY ASSURANCE PROGRAM DESCRIPTIONAPPENDIX II"POSITION STATEMENTS"

This Appendix identifies those quality-related Regulatory Guides which the Supply System intends to follow during operations phase of its nuclear power plants. However, where the Regulatory Positions stated in these Regulatory Guides could lead to misunderstanding, or where alternate methods and/or solutions are implemented for accomplishment of Regulatory Positions, they are also described in this Appendix. The Supply System commitments to comply with applicable Regulatory Guides not addressed in this Appendix are or will be documented in the applicable Final Safety Analysis Report. The Supply System Positions, described in this Appendix, will be incorporated by Supply System organizations in their procedures and/or instructions for applicable activities. This Appendix will be revised, as and when necessary, by the Supply System Quality Assurance Director, in accordance with the provisions of Section 2 of the QA Program.

II.1 REGULATORY GUIDE 1.8, REV. 1-R (May 1977) - "Personnel Selection and Training"

The Supply System will implement the Regulatory Position of Regulatory Guide 1.8, Rev. 1-R (May 1977). For details, see Chapter 13 of the Final Safety Analysis Report for the applicable nuclear power plant.

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II.2 REGULATORY GUIDE 1.26, REV. 3 (February 1976) - "Quality Group Classifications and Standards for Water-, Steam-, and Radioactive- Waste-Containing Components of Nuclear Power Plants"

The Supply System will implement the Regulatory Position of Regulatory Guide 1.26, Rev. 3 (February 1976).

II.3 REGULATORY GUIDE 1.29, REV. 3 (September 1978) - "Seismic Design Classification"

The Supply System will implement the Regulatory Position of Regulatory Guide 1.29, Rev. 3 (September 1978).

II.4 REGULATORY GUIDE 1.30, (Safety Guide 30, August 11, 1972) - "Quality Assurance Requirements for the Installation, Inspection and Testing of Instrumentation and Electric Equipment"

The Supply System will implement the Regulatory Position of Regulatory Guide 1.30 (Safety Guide 30, August 11, 1972), subject to the following:

1. Regulatory Position C.1 of Regulatory Guide 1.30 (Safety Guide 30, August 11, 1972) states that ANSI N45.2.4-1972 should be used in conjunction with ANSI N45.2-1971, "Quality Assurance Program Requirements for Nuclear Power Plants." It is the Supply System position that ANSI N45.2-1971 is not applicable for operational phase activities of nuclear power plants. Instead the Supply System will comply with its Position Statement on Regulatory Guide 1.33.

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2. Section 1.1 of ANSI N45.2.4-1972: This standard will be applied to the installation, inspection, and testing of Class 1E instrumentation, electrical systems and/or components for plant modifications comparable in nature and extent to the activities normally occurring during the initial plant design and construction phase.
3. Section 3(3) of ANSI N45.2.4-1972: Checking of records is normally accomplished during periodic surveillances and audits of the storage facility. The checking of storage records for each individual item prior to installation is not planned.
4. Section 5.1.2 of ANSI N45.2.4-1972: Inspections to verify housekeeping will be done as stated in the Supply System position statement on Regulatory Guide 1.39.
5. Section 5.2.1 of ANSI N45.2.4-1972: Tests will include those listed as appropriate. The manufacturers' recommendations shall be considered. The test procedure will specify the actual test to be performed.
6. Section 9 of ANSI N45.2.4-1972: The Supply System position, stated herein, does not address the codes and standards listed and/or referenced in this paragraph. Such position will be developed in the future, if the need arises.
7. Appendix A "Supplementary Provisions for Multi-Unit Stations" to ANSI N45.2.4-1972 is not considered applicable to Supply System nuclear power plants.



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8. Appendix B "Additional Codes, Standards and Guides" to ANSI N45.2.4-1972:
Refer to Supply System Position on Section 9 of ANSI N45.2.4-1972.

II.5 REGULATORY GUIDE 1.33, REV. 2 (February 1978) - "Quality Assurance Program Requirements (Operation)"

The Supply System will implement the Regulatory Position of Regulatory Guide 1.33, Rev. 2 (February 1978), subject to the following:

1. Regulatory Position C.2 of Regulatory Guide 1.33, Rev. 2 (February 1978) implies that the provisions contained in the latest revisions of the Regulatory Guides, listed therein, will be followed. The Supply System will follow its position statements on applicable Regulatory Guides as described throughout this Appendix.
2. Section 5.2.13.4 of ANSI N18.7-1976/ANS-3.2: The third paragraph of this section is revised to read, "Special handling tools and equipment shall be inspected and/or tested, as necessary, in accordance with written procedures and at specific times to verify that the tools and equipment are adequately maintained."
3. Section 5.2.17 of ANSI N18.7-1976/ANS-3.2 states that inspection of operating activities may be conducted by second-line supervisory personnel or by other qualified personnel not assigned first-line supervisory responsibility for conduct of the work. The Supply System position is to allow the plant operations'



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first-line supervisors to perform inspections of surveillance tests, provided that an after-the-fact review of surveillance documentation is performed by the second-line supervisor or by other personnel not assigned first-line responsibility for the conduct of the work.

4. Sections 5.2.19.1 and 5.2.19.2 of ANSI N18.7-1976/ANS-3.2 describe rules of practice for preoperational and startup test program. The Supply System intends to comply with the provisions of these sections. In cases, where conflicts exist between these sections and Regulatory Guide 1.68, the Supply System will comply with the implementation of Regulatory Guide 1.68 as described in Chapter 14 "Initial Test Program" of the Final Safety Analysis Report.

II.6 REGULATORY GUIDE 1.37, (March 16, 1973) - "Quality Assurance Requirements for Cleaning of Fluid Systems and Associated Components of Water-Cooled Nuclear Power Plants"

The Supply System will implement the Regulatory Position of Regulatory Guide 1.37, (March 16, 1973), subject to the following:

1. Regulatory Position C.4 of Regulatory Guide 1.37 (March 16, 1973) states, in part, "Chemical compounds that could contribute to intergranular cracking or stress-corrosion cracking should not be used with austenitic stainless steel and nickel-base alloys." In clarification, the Supply System will either follow the chemical composition limits established by its Nuclear Steam Supply System vendor or establish such limits based upon a documented engineering evaluation.

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2. Regulatory Position C.5 of Regulatory Guide 1.37 (March 16, 1973) states, in part, "Specifically, tools which contain materials that could contribute to intergranular cracking or which, because of previous usage, may have become contaminated with such materials should not be used on surfaces of corrosion-resistant alloys." In clarification, the Supply System will either follow the chemical composition limits established by its Nuclear Steam Supply System (NSSS) vendor, or establish such limits based upon a documented engineering evaluation.
3. Section 2.1 of ANSI N45.2.1-1973 states, in part, "Planning for cleaning activities shall include a review of the system and component design specifications and drawings. In clarification of this requirement, a review of system and component design specifications and drawings will be required for only those modifications which change the design of a fluid system.
4. Section 2.3 of ANSI N45.2.1-1973, last sentence, is revised to read, "Test reports shall include an evaluation of the acceptability of inspection and test results and provide for identifying the individual who performed the evaluation."
5. Section 3.1.2.1 of ANSI N45.2.1-1973 states, in part, "Scattered areas of rust are permissible provided the aggregate area of rust does not exceed two square inches in any one square foot area." The Supply System considers this two square inch limit as a guide only. Adequate discretion by experienced personnel will be used in all cases.



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6. Section 3.1.2.5 of ANSI N45.2.1-1973 states, in part, "There shall be no evidence of organic contamination in the effluent water or on the filter." The Supply System intends to comply with this requirement. The presence of organic contamination will be determined visually or by feel.
7. Section 4 of ANSI N45.2.1-1973, second sentence, is revised to read, "Inspections, examinations, or tests for cleanliness shall be performed if it is suspected that cleanliness has been affected by transportation to, or storage at the installation site."
8. Section 7.4 of ANSI N45.2.1-1973 requires checking of cleaning solutions for effectiveness of inhibitors (if used). In clarification of this requirement, the effectiveness of inhibitors (if used) will be determined by documentation in technical literature or manufacturer's or vendor's recommendations.

11.7 REGULATORY GUIDE 1.38, REV. 2 (May 1977) - "Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage and Handling of Items for Water-Cooled Nuclear Power Plants"

The Supply System will implement the Regulatory Position of Regulatory Guide 1.38, Rev. 2 (May 1977), subject to the following:

1. Section 3.2.1 (1) of ANSI N45.2.2-1972: Temperature and humidity control considerations for packaging of Level A items are not considered applicable to nuclear fuel assemblies unless recommended otherwise by the nuclear fuel manufacturer. The Supply System will abide by the manufacturer's recommendation.



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2. Section 3.5.2 of ANSI N45.2.2-1972, last sentence, is revised to read as,
"Tapes used for identification rather than sealing which are not near a welding operation may remain indefinitely (see also Appendix Section 3.5.2 for additional requirements)."
3. Section 3.7.1 (1) of ANSI N45.2.2-1972: The Supply System may use cleated, sheathed boxes for loads up to 1,000 pounds rather than 500 pounds limit imposed here. This type of box has been tested by the WNP-2 Nuclear Steam Supply System vendor and found safe for loads up to 1,000 pounds. Other national standards allow the 1,000 pound designation (see Federal Specification PPP-B-601).
4. Section 6.1.2 (1) of ANSI N45.2.2-1972: Temperature and humidity controls required for storage of Level A items are not considered applicable for nuclear fuel assemblies unless recommended otherwise by the nuclear fuel manufacturer. The Supply System will abide by the manufacturer's recommendation.
5. Section 6.4.2 of ANSI N45.2.2 gives detailed requirements for care of items in storage. In clarification, the Supply System will either follow manufacturer's recommendation or follow its own requirements, established based upon a documented engineering evaluation, concerning maintenance of protective covers, seals, and caps; maintenance of preservatives and inert atmosphere; energization of instrument racks and space heaters; insulation resistance testing; and rotation of shafts for rotating equipment.

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6. Appendix Sections A3.4.1 (4) and A3.4.1 (5) of ANSI N45.2.2-1972: During printing of the standard, a transposition occurred between the last sentences of these sections. The Supply System will comply with the correct wording which reads as follows:

A3.4.1 (4), last sentence: However, preservatives for inaccessible inside surfaces of pumps, valves and pipe for systems containing reactor coolant water shall be the water flushable type.

A3.4.1 (5): The name of the preservative used shall be indicated to facilitate touch up.

II.8 REGULATORY GUIDE 1.39, REV. 2 (September 1977) - "Housekeeping Requirements for Water-Cooled Nuclear Power Plants"

The Supply System will implement the Regulatory Position of Regulatory Guide 1.39, Rev. 2 (September 1977), subject to the following:

Section 2.1 of ANSI N45.2.3-1973 requires the establishment of cleanness requirements for housekeeping activities on the basis of zone designations. The Supply System considers these zone designations and the requirements associated with each zone as impractical for implementation during the operations phase. Procedures or instructions for housekeeping activities, which include the applicable requirements outlined in Section 2.1 of ANSI N45.2.3-1973 and which take into account the radiation control considerations, security considerations and cleanness requirements, will be developed on case by case basis for maintenance and modification work to be performed.



**OPERATIONAL
QUALITY ASSURANCE PROGRAM DESCRIPTION****II.9 REGULATORY GUIDE 1.58, REV. 1 (September 1980) - "Qualification of Nuclear Power Plant Inspection, Examination and Testing Personnel"**

The Supply System will implement the Regulatory Position of Regulatory Guide 1.58, Rev. 1 (September 1980), subject to the following:

1. Regulatory Position C.5 of Regulatory Guide 1.58, Rev. 1 (September 1980) implies that individuals who review and approve inspection, examination, and testing procedures and those who evaluate the adequacy of such procedures to accomplish the inspection, examination, and test objectives, should meet the Level III capability requirements delineated in Table I of ANSI/ASME N45.2.6-1978. Not all Supply System personnel performing the types of cited functions will meet the Level III capability requirements of Table 1 of ANSI/ASME N45.2.6-1978. However, personnel performing the cited functions will be determined by Supply System management (through evaluation of their education, training, and experience) to be fully qualified and competent. The basis for the determination will be documented.

2. Section 1.2 of ANSI/ASME N45.2.6-1978, fourth paragraph, states that the requirements of this Standard apply to personnel of the owners and their suppliers. In clarification, the extent of application of the requirements of ANSI/ASME N45.2.6-1978 to Supply System suppliers will depend upon the nature and extent of materials or services furnished, and as further described in Supply System positions on Section 2.4 and 3 of ANSI/ASME N45.2.6-1978.



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3. Section 2.1.2 of ANSI/ASME N45.2.6-1978 implies that personnel performing non-NDE type of inspections, examinations, and testing will be formally certified. The Supply System does not plan this formal certification. Instead, the Supply System will select such personnel to predetermined qualification requirements for the specific task based on their education, experience, and training. Formal training records, when used as the basis for qualification, will be maintained on file.
4. Section 2.4 of ANSI/ASME N45.2.6-1978 requires issuance of formal certification to individuals and specifies the details of the information to be included in the certificate. The Supply System does not plan to issue formal certificates to individuals within the scope of ANSI/ASME N45.2.6-1978 and Regulatory Guide 1.8. However, information similar to that described in this section of the Standard will be available in documented form attesting that the individual is capable of performing the assigned task(s). The Supply System will use a similar approach in evaluating supplier compliance with this section of the Standard.
5. Section 3 of ANSI/ASME N45.2.6-1978 divides the capability requirements of inspection, examination, and testing personnel into three levels, namely Level I, Level II, and Level III. The Supply System will not assign these levels to its personnel performing inspection, examination, and testing activities. However, the selection of personnel for particular tasks will be such as to match the capabilities to the types of tasks and maintain the intent of the three levels. The judgement to determine that a person's qualifications and capabilities meet the intent of a certain level of inspection, examination, and testing function is



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made through the normal management process by using established administrative and personnel procedures. Documentation for such justification will be maintained on file. A similar approach will be used to evaluate the qualifications of non-NDE personnel of Supply System suppliers.

II.10 REGULATORY GUIDE 1.64, REV. 2 (June 1976) - "Quality Assurance Requirements for the Design of Nuclear Power Plants"

The Supply System will implement the Regulatory Position of Regulatory Guide 1.64, Rev. 2 (June 1976), subject to the following:

Regulatory Position C.2 of Regulatory Guide 1.64, Rev. 2 (June 1976) states that individuals performing design verification should not have immediate supervisory responsibility for the individual performing the design. It further states that while design verification by the immediate supervisor is encouraged, it should not be construed that such verification constitutes the required independent design verification. It is the Supply System position that if the designer's immediate supervisor is the most technically qualified individual available in the organization to perform a design verification by design review, this review may be conducted by the supervisor, providing that:

- a. The justification is individually documented and approved in advance by the supervisor's management and
- b. Quality Assurance audits cover the frequency and effectiveness of use of supervisors as design verifiers to guard against abuse.



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The Supply System will implement the Regulatory Position of Regulatory Guide 1.74 (February 1974), subject to the following:

1. Regulatory Position "C" of Regulatory Guide 1.74 (February 1974) specifies certain documents recommended be included in the definition of "procurement documents", defined in ANSI N45.2.10-1973. The Supply System will use the following definition:

Procurement Documents - Purchase requisitions, purchase orders and contracts with attachments necessary to specify/verify requirements.

2. Section 2 of ANSI N45.2.10-1973: The definition of "specification" is revised to read as follows:

Specification - A statement of a set of requirements to be satisfied by a product, a material, a service or process indicating, whenever appropriate, the procedure by means of which it may be determined whether the requirements given are satisfied.

II.12 REGULATORY GUIDE 1.88, REV. 2 (October 1976) - "Collection, Storage, and Maintenance of Nuclear Power Plant Quality Assurance Records"

The Supply System will implement the Regulatory Position of Regulatory Guide 1.88, Rev. 2 (October 1976), subject to the following:

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1. Regulatory Position C.2 of Regulatory Guide 1.88, Rev. 2 (October 1976) endorses the 4-hour fire rating requirements for a single records storage facility as described in Section 5.6 of ANSI N45.2.9-1974. The Supply System modifies this 4-hour rating requirement of ANSI N45.2.9-1974 to 2-hour fire rating requirement. Accordingly, the Supply System will comply with a substitute to the third, fourth, and fifth paragraphs of Section 5.6 of ANSI N45.2.9-1974 which reads, "Where a single record storage is maintained, the QA records shall be maintained in any one of the following four (4):
 - a. A 2-hour vault meeting NFPA (National Fire Protection Association) No. 232-1975 without additional provisions.
 - b. 2-hour rated file containers meeting NFPA No. 232-1975 (Class B) without additional NFPA provisions.
 - c. 2-hour rated fire resistant file room meeting NFPA No. 232-1975 with the following additional provisions:
 - (1) Early warning fire detection and automatic fire suppression shall be provided, with electronic supervision at a constantly attended central station.
 - (2) Records shall be stored in fully enclosed metal cabinets. Records shall not be permitted on open steel shelving. No storage of records shall be permitted on the floor of the facility. Adequate access and aisle ways shall be maintained at all times throughout the facility.

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- (3) Work not directly associated with records storage or retrieval shall be prohibited within the records storage facility.
Examples of such prohibited activities include but are not limited to: records reproduction, film developing, and fabrication of microfiche cards.
 - (4) Smoking and eating/drinking shall be prohibited throughout the records storage facility.
 - (5) Ventilation, temperature, and humidity control equipment shall be protected inside with standard fire-door dampers where they penetrate fire barriers bounding the facility.
- d. A 2-hour fire rated facility meeting the following criteria and provisions:
- (1) Reinforced concrete, concrete block, masonry, or equal construction.
 - (2) Floor and roof with drainage control. If floor drain is provided, a check valve (or equal) shall be included.
 - (3) Doors, structure and frames, and hardware shall be designed to comply with the requirements of a minimum 2-hour fire rating.
 - (4) Sealant applied over walls as a moisture or condensation barrier.



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- (5) Surface sealant on floor providing a hard wear surface to minimize concrete dusting.
 - (6) Foundation sealant and provisions for drainage.
 - (7) Forced air circulation with filter system.
 - (8) Fire Protection System.
 - (9) Only those penetrations used exclusively for fire protection, communication, lighting, or temperature/humidity control are allowed; all such penetrations shall be sealed or dampered to comply with the minimum 2-hour fire protection rating.
 - (10) The construction details shall be reviewed for adequacy of protection of contents by a person who is competent in the technical field of fire protection and fire extinguishing.
 - (11) If the facility is located within a building or structure, the environment and construction of that building can provide a portion or all of the criteria (1) through (9).
2. Section 3.2.2 of ANSI N45.2.9-1974 is revised to read, "Index - The quality assurance records shall be indexed. The indexing system(s) shall include, as a minimum, record retention times and the location of the records within the record system. The indexing system(s) shall provide sufficient information which can be used to identify item(s) or activity(ies)."



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3. Section 5.4.3 of ANSI N45.2.9-1974 is revised to read, "Special Processed Records - Provisions shall be made for special processed records (such as radiographs, photographs, negatives, and microfilm) to prevent damage from excessive light, stacking, electromagnetic fields, and temperature. These provisions will be delineated in procedures and/or instructions which will incorporate, or take into consideration, available manufacturers' recommendations."

II.13 REGULATORY GUIDE 1.94, REV. 1 (April 1976) - "Quality Assurance Requirements for Installation, Inspection, and Testing of Structural Steel During the Construction Phase of Nuclear Power Plants"

Regulatory Guide 1.94, Rev. 1 (April 1976) is not considered applicable to operations phase activities. However, the Regulatory Position of Regulatory Guide 1.94, Rev. 1 (April 1976), where appropriate, will be implemented for those applicable operational phase activities that are comparable to construction phase activities.

II.14 REGULATORY GUIDE 1.116, REV. 0-R (May 1977) - "Quality Assurance Requirements for Installation, Inspection, and Testing of Mechanical Equipment and Systems"

The Supply System will implement the Regulatory Position of Regulatory Guide 1.116, Rev. 0-R, (May 1977), subject to the following:

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1. Regulatory Position C.3 of Regulatory Guide 1.116, Rev. 0-R (May 1977) recommends that the requirements of Section 5 of ANSI N45.2.8-1975 pertaining to preoperational tests, cold functional tests, and hot functional tests should be used in conjunction with Regulatory Guide 1.68. The Supply System will comply with the implementation of Regulatory Guide 1.68 as described in Chapter 14, "Initial Test Program," of the Final Safety Analysis Report.
2. Section 2.3 of ANSI N45.2.8-1975, last sentence is revised to read, "Test reports shall include an evaluation of the acceptability of inspection and test results and provide for identifying the individual who performed the evaluation."
3. Section 2.8.2 of ANSI N45.2.8-1975 states, "Records of calibration shall be included in inspection and test results." The Supply System does not intend to include calibration records in inspection and test results. Instead, the calibration records will be maintained in a separate file.
4. Section 2.9.e(6) of ANSI.2.8.1975 states, "Evidence that engineering or design changes are documented and approved prior to installation." The Supply System may permit installation of an item prior to approval of the related engineering or design change provided procedural controls, requiring evidence of engineering or design change approval prior to placing the affected item into service, are instituted.



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The Supply System will implement the Regulatory Position of Regulatory Guide 1.123, Rev. 1 (July 1977), subject to the following:

Section 1.3 of ANSI N45.2.13-1976: The Supply System will comply with the definition of "procurement documents" as stated in its position statement on Regulatory Guide 1.74 (February 1974).

II.16 REGULATORY GUIDE 1.144, REV. 1 (September 1980) - "Auditing of Quality Assurance Programs for Nuclear Power Plants"

The Supply System will implement the Regulatory Position of Regulatory Guide 1.144, Rev. 1 (September 1980), subject to the following:

Section 4.4.4 of ANSI N45.2.12-1977 requires the audit report to include an evaluation statement regarding the effectiveness of the quality assurance program elements that were audited. Since the audit by its very nature is an evaluation of the quality assurance program effectiveness, the audit report itself is considered to be an evaluation of the quality assurance program effectiveness. Therefore, this section of the Standard is revised to read "A Summary of Audit Results."



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**II.17 REGULATORY GUIDE 1.146, (August 1980) - Qualification of Quality Assurance
Program Audit Personnel for Nuclear Power Plants"**

The Supply System will implement the Regulatory Position of Regulatory Guide 1.146 (August 1980).

