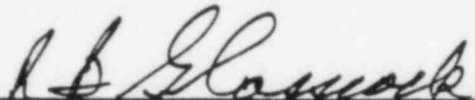


OPERATIONAL QUALITY ASSURANCE PROGRAM DESCRIPTION

(WPPSS-QA-004)

APPROVED:



Director, Licensing & Assurance

2-14-83

Date

ORIGINAL ISSUE: May 10, 1978

Washington Public Power Supply System

Richland, Washington 99352

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MANAGEMENT STATEMENT

It is the policy of Washington Public Power Supply System (hereinafter called the "Supply System") to design, construct and operate its nuclear power plants without jeopardy to the health and safety of the public. In support of this policy, the Supply System has established a Corporate Quality Assurance Program that is described in the following three documents:

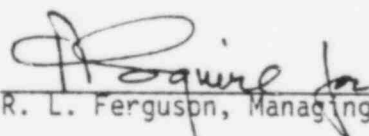
1. Quality Assurance Program for Design and Construction.
2. ASME Quality Assurance Manual (Design and Construction)
3. Operational Quality Assurance Program Description (Operations Phase).

The three documents contain the official Supply System Quality Assurance policies. Adherence by all affected Supply System organizations is mandatory.

The Operational Quality Assurance Program Description meets the applicable requirements of 10 CFR 50, Appendix B.

The Licensing & Assurance Directorate is mandated the responsibility and authority for establishing, administering and assuring implementation of the Supply System Corporate Quality Assurance Program. The Licensing & Assurance Director has the responsibility and authority, including stop work authority, to perform actions necessary to accomplish this mandate as delineated in the Corporate Quality Assurance Program manuals.

The Licensing & Assurance Directorate has my delegated approval authority for the Operational Quality Assurance Program Description and any necessary modifications.


 2/14/83
 R. L. Ferguson, Managing Director/Date

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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 through 1-6. 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 Director of Operations, the Director of Licensing & Assurance, the Director of Support 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, Operations, reports to the Managing Director and is responsible for engineering, construction, initial testing, and subsequent operation and maintenance activities for all Supply System nuclear power plants. To accomplish this role, the Director of Operations operates through the Director of Power Generation, the Program Directors (Projects), and the Director of Technology.

1.3.2.1 The Director, Power Generation, reports to the Director of Operations, 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.
- c. Establishment and monitoring of maintenance systems common to all nuclear power plants.
- d. Generic Training of Power Generation staff.

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1.3.2.1 (contd.)

- e. Development of corporate programs and procedures for power generation to ensure uniform application at all nuclear power plants.

To accomplish this role, the Director of Power Generation operates through the Plant Managers, the Generation Services & Training Manager, and the WNP-2 Test & Startup Manager.

1.3.2.1.1 The Plant Manager for each of the Supply System nuclear power plants reports to the Director of Power Generation 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, 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. Approval and control of procurement documents for safety related items and services.

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1.3.2.1.1 (contd.)

- e. Controlling purchased equipment and materials intended for plant use.
- f. Establishment and implementation of a calibration program for Measuring & Test Equipment (including installed instruments covered by the Plant Technical Specifications).
- g. Dispositioning of nonconforming items.
- h. Control and maintenance of on-site quality assurance 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, the Training Manager, and the Administrative 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.

- 1.3.2.1.2 The Manager, Generation Services & Training, reports to the Director of Power Generation and is responsible for operations training policy and guidance for the nuclear plants; conduct of central training services for nuclear plant operations; providing support services to the Plant Managers in acquisition, storage, and reporting of operational and maintenance data; planning and scheduling plant outages for refueling and maintenance activities; preparation/coordination for review and approval/transmittal to the Nuclear Regulatory Commission of operating reports required by

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1.3.2.1.2 (contd.)

the applicable plant Technical Specifications; maintenance of a common policy for test and startup for nuclear projects; and providing central maintenance and non-destructive examination services.

1.3.2.1.3 The Test & Startup Manager for WNP-2 reports to the Director of Power Generation and is responsible for supporting the WNP-2 Plant Manager by providing direction and coordination of initial testing activities at WNP-2. See Chapter 14 of the WNP-2 FSAR for a full description of the WNP-2 initial test program.

1.3.2.2 The Program Director for each of the Supply System nuclear projects reports to the Director of Operations and is directly responsible for safe and successful completion of engineering and construction activities for that project. Additionally, the Program Directors for WNP-1 and WNP-3 Projects are responsible for safe and successful completion of initial testing activities for the respective project. See Chapter 14 of WNP-1 and WNP-3 FSARs for a full description of the respective project's initial test program.

1.3.2.3 The Director, Technology, reports to the Director of Operations and is responsible for providing engineering and design control, reactor safety evaluation, nuclear and environmental analysis, plant simulator support, nuclear fuel supply, and maintenance/surveillance engineering support as required for each Supply System nuclear plant. The Director of Technology is specifically responsible for:

- a. Corporate design control establishment and maintenance.
- b. Design and engineering for plant system design changes and modifications.

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1.3.2.3 (contd.)

- c. Planning and over-viewing the implementation of the plant pre-service and in-service inspection.
- d. Technical resolution of nuclear safety, licensing, environmental, geological, and radiological issues.
- e. Initial fuel supply.
- f. Reload fuel supply, design, and licensing.
- g. Maintaining a current engineering data base for each plant.

To accomplish this role, the Director of Technology, operates through Assistant Directors, Systems Engineering, Generation Engineering, WNP-2 Plant Engineering, and Fuels & Environment.

1.3.2.3.1 The Assistant Director, Systems Engineering, reports to the Director of Technology and is responsible for:

- a. Design and engineering for plant changes and modifications.
- b. System engineering support for plant turnover.
- c. The control of the plant design data.
- d. Control of Q-list changes.
- e. Design procedures and standards required for plant configuration control.

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1.3.2.3.1 (contd.)

- f. Preparation, maintenance, and distribution control of pre-service and in-service inspection programs, technical overview of program implementation, and preparation of data reports.
- g. Materials and welding engineering.
- h. ASME Code interpretation.
- i. Providing reliability and availability and related analyses.
- j. Providing engineering support in acquiring, operating, and maintaining training simulators.
- k. Providing analyses to demonstrate the response characteristics of training simulators and to certify the validity of the simulation.
- l. Providing plant transient analyses to support operational decision making and to form a basis for reload licensing and technical specification changes.

1.3.2.3.2 The Assistant Director, WNP-2 Plant Engineering, reports to the Director of Technology and is responsible for:

- a. Coordination and control of the plant design change process.
- b. WNP-2 Technical program management and licensing issue resolution.

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1.3.2.3.2 (contd.)

- c. Review of Significant Event Reports and other similar documentation of potential safety significance.
- d. Engineering support to the plant staff.

1.3.2.3.3 The Assistant Director, Generation Engineering, reports to the Director of Technology and is responsible for:

- a. Environmental and seismic qualification of plant equipment.
- b. WNP-3 Technical program management and licensing issue resolution.
- c. Construction engineering support for non-generation facilities.
- d. Development and implementation of on-site engineering organization at WNP-3 for the operational phase.

1.3.2.3.4 The Assistant Director, Fuels & Environment, reports to the Director of Technology and is responsible for:

- a. Assuring an adequate and timely supply of high-quality fuel for each plant through fuel cycle planning and surveillance, acquisition of fuel and fuel cycle services, technical contract administration and coordination of reload licensing.
- b. Review of nuclear fuel designs.

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1.3.2.3.4 (contd.)

- c. Providing analytical support in areas such as fuel reactor performance, fuel isotopic concentrations and analysis of off-standard reactor operating conditions.
- d. Environmental monitoring and assuring compliance with environmental regulations during design, construction and operations.
- e. Review of proposed changes to the Environmental Technical Specifications.
- f. Performing off-site environmental, geological and radiological monitoring studies, and providing support to the Plant Managers in the implementation of off-site Environmental Technical Specifications.
- g. Reviewing and/or authoring portions of Safety Analysis Reports and Environmental Reports.
- h. Reviewing, upon request, Reportable Occurrence Reports, Operating Experience Reports, etc.

1.3.3 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 operations phases of all Supply System nuclear power plants. Major functions of the Licensing & Assurance organization are:

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1.3.3 (contd.)

- 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.
- d. Stopping unsatisfactory work and control further processing, delivery or installation of nonconforming material.
- e. Managing accomplishment of independent reviews of plant activities in accordance with the provisions of plant technical specifications.
- f. Establishment and maintenance of adequate and qualified assurance staffing (on-site as well as off-site) levels based on workload analysis.

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1.3.3 (contd.)

- g. 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.
- h. Providing licensing support functions in such areas as acquisition and maintenance of nuclear power plant construction permits and operating licenses.

The Director of Licensing & 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 & Assurance operates through the Manager of Operational Assurance Programs, the Manager of Audits, the Manager of Construction Quality Assurance, and the Manager of Nuclear Safety & Regulatory Programs. The qualification requirements for this position are as described in Appendix I, "Qualification Requirements".

- 1.3.3.1 The Manager, Operational Assurance Programs, reports to the Director of Licensing & Assurance and is primarily responsible for integrating and directing the performance of all quality assurance, quality control, and safety assurance functions that are necessary to assure that the programs for initial testing and subsequent operation of Supply System nuclear power plants are adequate, that they are being implemented, and that the operating experience is being evaluated and utilized where appropriate to improve the safety of the plants. Some of the specific responsibilities for this position are:

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1.3.3.1 (contd.)

- a. Establishment and maintenance of the Operational QA Program Description (WPPSS-QA-004) and QA, QC, and Safety Assurance procedures utilized by the Operational Assurance staff.
- b. Providing for review of plant documents (such as programs, plans, and procedures) from quality and safety assurance aspects.
- c. QA/QC functions related to procurement of nuclear fuel.
- d. Providing supporting QA/QC staff to the Plant QA Managers in order to assure adequate coverage of peak period activities (such as maintenance, modification, refueling, and in-service inspections).
- e. To stop unsatisfactory work and control further processing, delivery, or installation of nonconforming material.

The Manager of Operational Assurance Programs operates through the Plant QA Managers, the Nuclear Safety Assurance Managers and staff engineers. The qualification requirements for this position are as described in Appendix I, "Qualification Requirements".

- 1.3.3.1.1 The Plant QA Manager (located on-site) for each nuclear plant 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

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1.3.3.1.1 (contd.)

acceptable from quality assurance aspects and that they are being implemented. The Plant QA Manager has no duties or responsibilities unrelated to QA/QC 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 the Test Working Group (see Chapter 14 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:

- 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:

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1.3.3.1.1 (contd.)

- (i) administrative procedures which address: operations, maintenance, technical specifications, in-service inspection and testing, modifications, calibration, testing, fuel handling, and procurement; (ii) nonconformance and corrective action reports; (iii) plant originated procurement documents; (iv) plant work orders; and (v) plant modification packages.
- 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; pre-operational, startup, 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.
- c. Initiating procedures or instructions necessary for the accomplishment of plant QA/QC activities.
- d. Performance of required inspections, examinations, and measurements associated with maintenance, modification, repair, test, radioactive waste shipping, refueling activities, and on-site receipt of purchased items (including nuclear fuel).

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1.3.3.1.1 (contd.)

- e. Participating in plant meetings which involve discussions of daily and projected plant work loads and assuring proper staffing (QA/QC) levels during peak period activities (such as maintenance, refueling, modifications, or In-Service Inspection).

1.3.3.1.2 The Manager, Nuclear Safety Assurance, (located on-site) for each nuclear plant reports to the Manager of Operational Assurance Programs and is responsible for:

- a. Evaluation of plant operations from a nuclear safety perspective.
- b. Evaluation for technical adequacy and clarity of selected procedures important to the safe operation of the plant.
- c. Assessment of plant performance regarding conformance to requirements related to safety.
- d. Comparison of the operating experience of the plant and plants of similar design.
- e. Assessment of plant nuclear safety programs.

1.3.3.2 The Manager, Construction Quality Assurance, reports to the Director of Licensing & Assurance and is primarily responsible for procurement QA, major plant modifications QA, and non-destructive examination (NDE) certification functions during initial testing and subsequent operations phase activities of Supply System nuclear power plants. Some of the specific responsibilities of the Manager of Construction Quality Assurance are:

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1.3.3.2 (contd.)

- a. Qualification/certification of Supply System inspection and test personnel, as required, and non-destructive examination personnel.
- b. Quality assurance functions associated with major plant modifications that are comparable to activities occurring during the initial construction phase.
- c. Vendor qualification, review and concurrence with vendor furnished programs and procedures, source verifications (e.g., surveillances, inspections, and audits at vendor facilities), and receiving inspection of vendor furnished items received at the corporate warehouses.
- d. Reviewing and concurring with off-site originated procurement documents to assure conformance to the QA Program requirements.
- 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.

The Manager of Construction Quality Assurance accomplishes this role through the Manager of Procurement Quality Assurance and staff engineers.

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1.3.3.2.1 The Manager, Procurement Quality Assurance, reports to the Manager of Construction Quality Assurance 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). The Manager of Procurement Quality Assurance is specifically responsible for:

- a. Review of and concurrence with procurement documents for items and services (other than nuclear fuel) initiated by corporate personnel.
- b. Establishment and maintenance of evaluated vendors list.
- c. Planning, coordination, and performance of source surveillances, source inspections, and source audits to verify implementation of vendors' QA/QC programs.
- d. Review and approval of vendor furnished QA/QC procedures and programs.
- e. Receiving inspection of vendor furnished items received at the corporate warehouses.

1.3.3.3 The Manager, Audits, reports to the Director of Licensing & Assurance and is responsible for maintaining an organization of qualified auditors responsible for verifying implementation of the QA Program as follows:

- a. Performing QA audits of Supply System organizations and external organizations (e.g., the Architect Engineers and the Construction Management).

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1.3.3.3 (contd.)

- b. Developing audit schedules and selecting qualified personnel to perform the activities of this function.
- c. Certification of Audit Team Leaders.
- d. Training of audit personnel.
- e. Forwarding of audit reports to the Chairman of the Corporate Nuclear Safety Review Board, the Director of Operations, and management positions responsible for the areas audited, for their review, assessment, and/or correction of identified deficiencies.
- f. Maintenance of audit records.

1.3.3.4 The Manager, Nuclear Safety & Regulatory Programs, reports to the Director of Licensing & Assurance and is responsible for:

- a. Development and maintenance of the Supply System Functional Manual for Nuclear Operation.
- b. Assuring that off-site safety-affecting Supply System procedures are clear and adequate from technical and quality assurance aspects.
- c. Establishment and maintenance of Supply System/regulatory interfaces and assuring that nuclear licensing transmittals receive an adequate, competent and timely review prior to making commitments.

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1.3.3.4 (contd.)

To accomplish this role, the Manager of Nuclear Safety & Regulatory Programs operates through the Manager of Programs & Safety Performance and the Manager of Regulatory Programs.

1.3.3.4.1 The Manager, Programs & Safety Performance, reports to the Manager of Nuclear Safety & Regulatory Programs and is responsible for:

- a. Establishment, maintenance, and control of the Supply System Functional Manual for Nuclear Operation.
- b. Maintenance and control of corporate QA procedures and/or instructions.
- c. Review of and concurrence with procedures and/or instructions, including changes thereto, of off-site Supply System organizations to assure that they address applicable QA requirements, prior to approval for release.
- d. Review of procedures and/or instructions, including changes thereto, of off-site Supply System organizations to assure that they are clear and technically acceptable.
- e. Periodically analysing reports of non-conformances (such as non-conformance reports, audit reports, surveillance reports, NRC inspection reports, reportable occurrence reports, etc.) to identify quality trends, if any, and reporting significant results to appropriate management for their review and assessment.

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1.3.3.4.1 (contd.)

- f. Providing technical expertise, where necessary, to support the performance of independent review and audit activities.
- g. Assessment of on-site nuclear safety programs to assure that they are adequate, that they are being effectively implemented, and that identified corrective action recommendations are being satisfactorily resolved by the cognizant management.

1.3.3.4.2 The Manager, Regulatory Programs, reports to the Manager of Nuclear Safety & Regulatory Programs 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 federal and state agencies (such as the Nuclear Regulatory Commission and the Energy Facility Site Evaluation Council).
- 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.
- e. Maintaining awareness of changing licensing requirements.

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1.3.3.4.2 (contd.)

- f. Providing coordinated development of responses to and comments to new laws, regulations, regulatory guides, and other regulatory issuances.

1.3.4 The Director, Support Services, reports to the Managing Director and is responsible for the development and implementation of policies and programs which support operation of Supply System nuclear power plant in the areas of radiological protection, safeguards and physical security, industrial safety and fire protection, emergency preparedness and administration. To accomplish this role, the Director of Support Services operates through the Manager of Health & Safety Programs, the Manager of Administration and the Manager of Security Programs.

1.3.4.1 The Manager, Health & Safety Programs, reports to the Director of Support Services and is responsible for the development and coordination of Supply System programs for industrial safety and hygiene, health physics, fire protection, medical, and emergency preparedness. The Manager of Health & Safety Programs is specifically responsible for providing:

- a. Assistance to appropriate management in the implementation of their responsibilities for an effective program of personnel safety and loss prevention.
- b. Technical assistance and support services in the areas of health physics, radio-chemistry, and emergency preparedness.
- c. Dose assessment, dosimetry and bio-assay function.

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1.3.4.1 (contd.)

- d. Maintaining a radiation exposure program which meets the intent of as low as reasonably achievable (ALARA).
- e. On-site meteorological services.
- f. Development and maintenance of emergency preparedness plans and providing related training.
- g. Fire brigade, radiological, and plant chemistry training.

1.3.4.2 The Manager, Administration, reports to the Director of Support Services and is responsible for providing support services in the areas of records and corporate policies and procedures.

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

- a. Administration of a security program which includes pre-employment 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.

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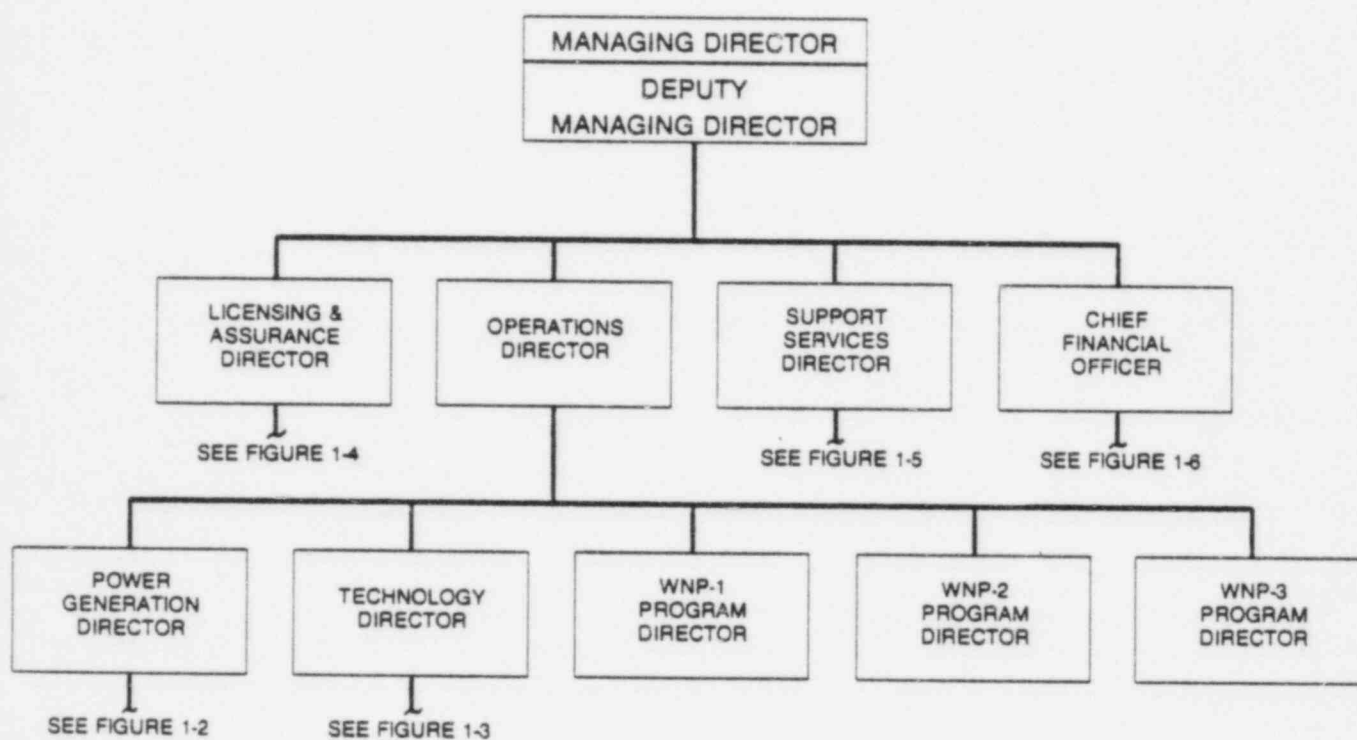
1.3.5 The Chief Financial Officer reports to the Managing Director and is responsible for providing procurement and storage control services that are required to support operation and maintenance of Supply System nuclear power plants. To accomplish this role, the Chief Financial Officer operates through the Manager of Corporate Contracts & Materials Management.

1.3.5.1 The Manager, Corporate Contracts & 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.

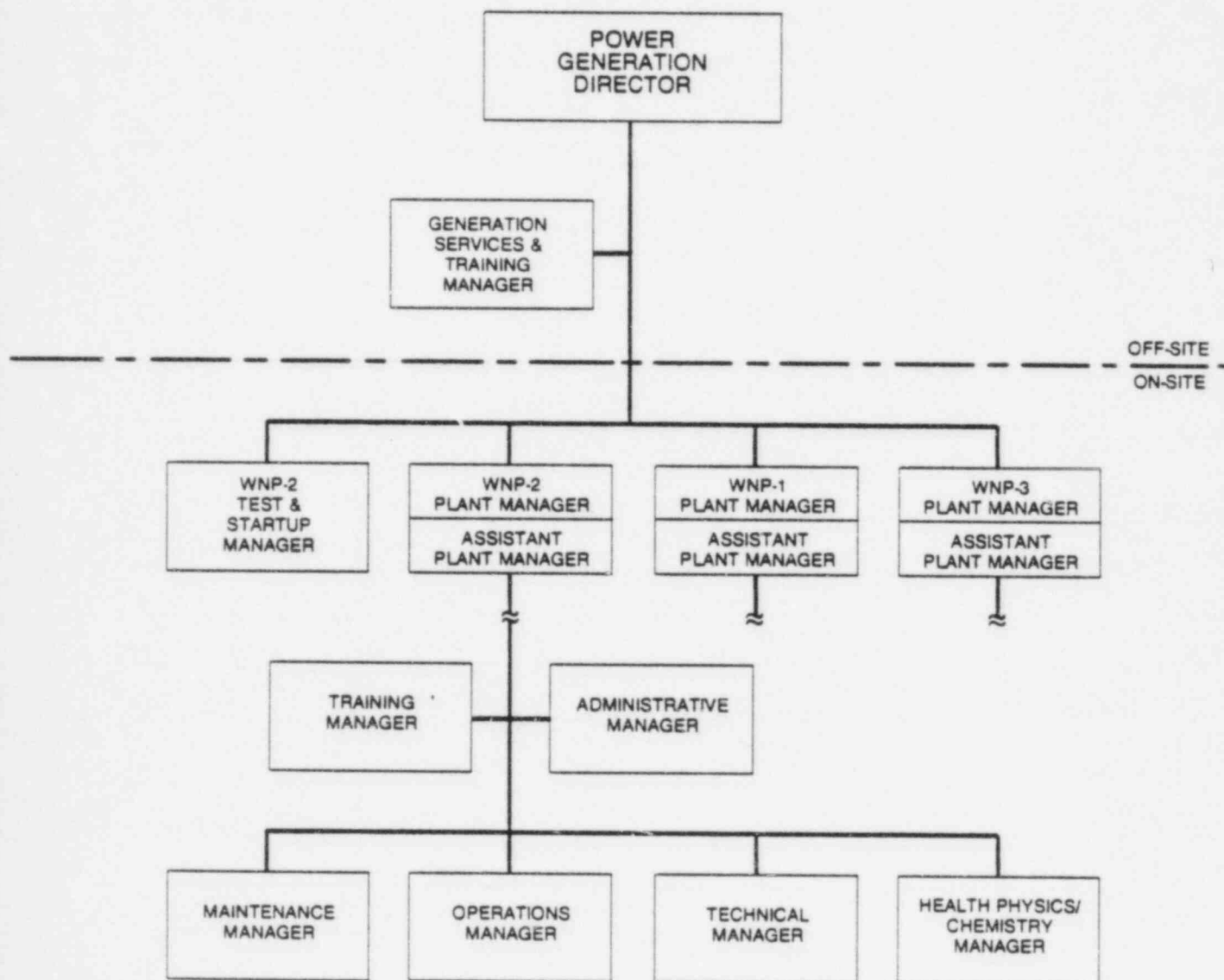
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FIGURE 1-1



**SUPPLY SYSTEM ORGANIZATION
RELATIVE TO OPERATIONAL QA**

FIGURE 1-2



POWER GENERATION ORGANIZATION

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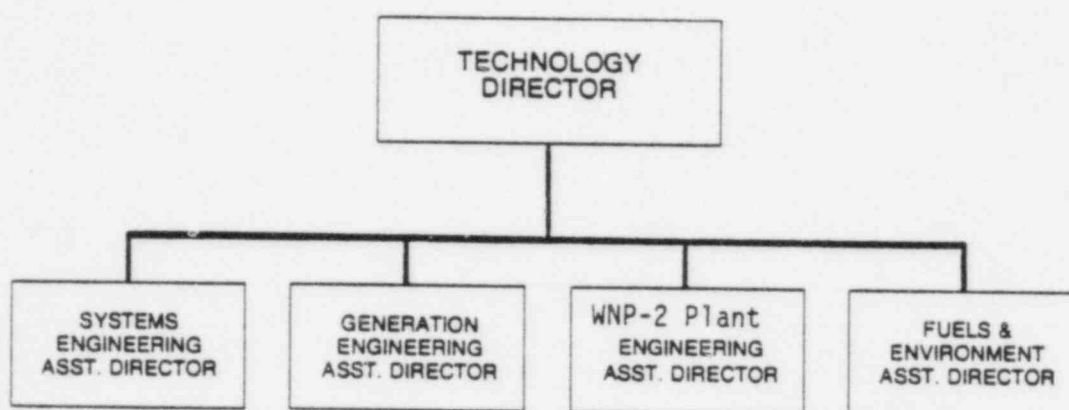
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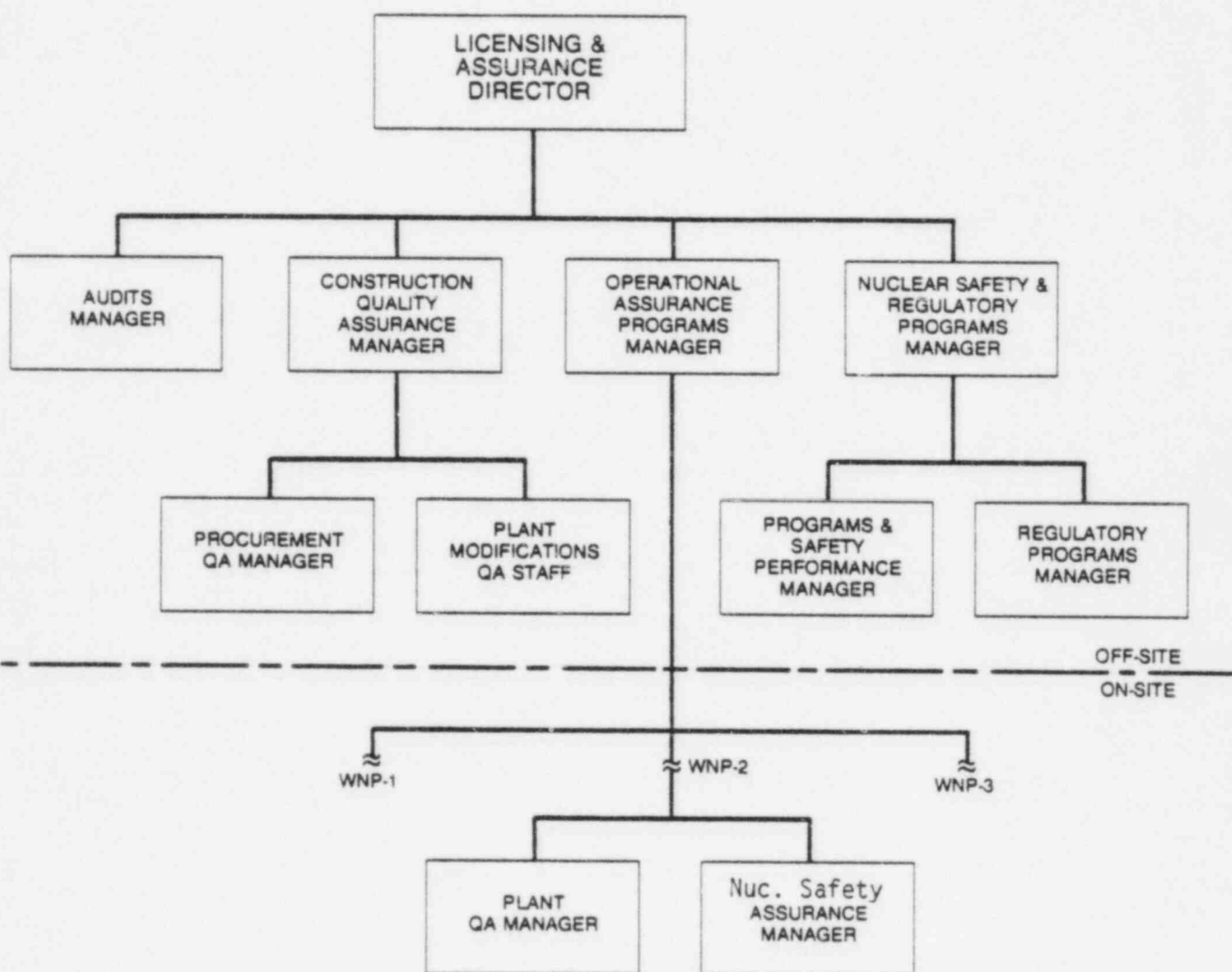
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FIGURE 1-3



TECHNOLOGY ORGANIZATION

FIGURE 1-4



LICENSING & ASSURANCE ORGANIZATION

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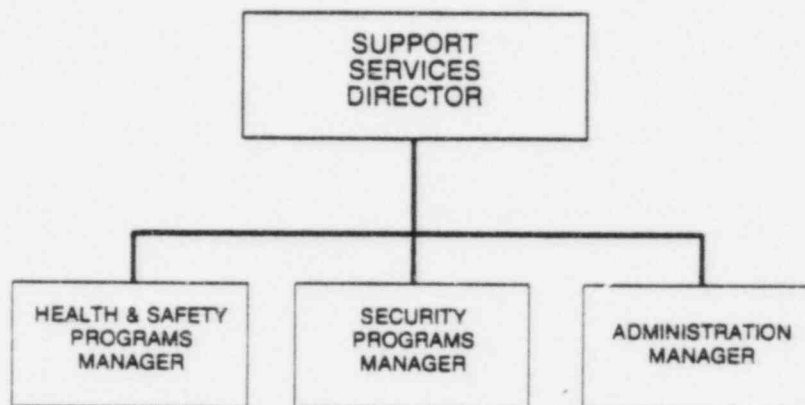
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FIGURE 1-5



SUPPORT SERVICES ORGANIZATION

FIGURE 1-6



FINANCE PROGRAMS

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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 Technology 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 & 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 & Assurance Organization. Copies of audit reports are presented to Supply System management to provide for assessment of the effectiveness of the QA Program. Additionally, on an annual basis, the Supply System management arranges for an independent audit and evaluation of the adequacy of the scope, implementation, and effectiveness of the QA Program. This is accomplished by knowledgeable personnel outside of Licensing & Assurance Organization to assure achievement of an objective program assessment. Results of these independent audits are reported to the Managing Director/Deputy Managing Director.

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TABLE 2-1
OPERATIONAL QA PROGRAM DESCRIPTION
IMPLEMENTING NUCLEAR OPERATION STANDARDS

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-5	Personnel Training, Qualification & Certification		X																
NOS-6	Review Committees						X												
NOS-9	Procedures/Instructions Control					X	X												
NOS-11	Conduct of Licensing Activities						X												
NOS-18	Operational Surveillance Program	X																	X
NOS-19	Operational Quality Control Inspection Program										X								
NOS-20	Audits																		X
NOS-22	Q-List Control		X				X												
NOS-23	Plant Modification Control			X															
NOS-24	Document Control						X												
NOS-26	Records Control																	X	
NOS-27	Procurement and Storage Control				X			X						X					
NOS-28	Equipment Control								X				X	X	X				

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TABLE 2-1
OPERATIONAL QA PROGRAM DESCRIPTION
IMPLEMENTING NUCLEAR OPERATION STANDARDS

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-29	Test Control											X							
NOS-30	Control of Nonconformances and Corrective Action															X	X		
NOS-31	Calibration Control												X						
NOS-32	Maintenance Control		X							X									
NOS-33	Control of ISI Programs		X							X	X	X							

3 - DESIGN CONTROL

3.1 PURPOSE

This section sets forth requirements for the control of new designs, changes thereto, and plant modifications that affect safety-related functions of structures, systems, and components.

3.2 GENERAL

3.2.1 Organizations (both internal and external) participating in the preparation, review, approval, and verification of design documents (drawings, design input and criteria, specifications, design analysis, computer programs, system descriptions, procedures, and instructions) associated with new designs, changes thereto, and plant modifications shall develop and implement procedures that clearly delineate actions to be accomplished. These procedures shall contain provisions to assure that:

- a. Applicable regulatory requirements and design bases specified in the Final Safety Analysis Report are correctly translated into design documents.
- b. Appropriate quality standards are specified and included in design documents and that changes from such standards are documented, approved, and controlled.
- c. Design analysis (reactor physics, stress, thermal, hydraulic, accident, etc.) is performed, where applicable.

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3.2.1 (cont'd.)

- d. Items such as compatibility of materials, parts, components, and processes selected; accessibility for inservice inspection, maintenance, and repair; and delineation of acceptance criteria for inspections and tests are considered, where applicable, during the design development and review phases.
- e. Errors and deficiencies discovered in approved design documents that could adversely affect safety-related structures, systems, and components are documented and that appropriate corrective action is taken.
- f. Development, maintenance and use of computer code programs is controlled. Where the use of a particular computer code for performing design calculations is specified, such computer code is verified and certified for use.

3.2.2 Where two or more design organizations are involved in the performance of design, necessary interface controls (both internal and external) shall be documented and controlled between the participating organizations, particularly in the area of review, approval, release, distribution and revision of interface documents.

3.2.3 Design verification, to provide assurance that the design meets the specified design inputs, shall be performed by utilizing methods such as design reviews, alternate calculations, or qualification testing.

3.2.4 Design verification procedures shall be established and implemented. These procedures shall:

- a. Provide for the determination of the method for design verification that will be utilized.

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3.2.4 (cont'd.)

- b. Provide assurance that the design verification is performed and documented by personnel other than those who performed the original design, but who may be from the same organization.
- c. Identify the responsibilities of the verifier; areas, features, and pertinent considerations to be verified; and the documentation to be generated.
- d. Require that where verification method is only by test, the prototype, component, or feature testing is performed at the earliest practicable stage.
- e. Require the accomplishment of design verification, in all cases, prior to relying upon the item to perform its safety function.

3.2.5 Design documents shall be reviewed for adequacy by the originating organization unless delegated to another qualified organization. Such reviews shall be documented and maintained on file.

3.2.6 Changes to approved design documents shall be subjected to design control measures comparable with those that were applied to the original design and shall be approved by the same organization that approved the original design, unless delegated to another qualified organization.

3.2.7 Measures shall be established to assure that plant personnel and other affected organizations are made aware of design changes/-modifications that affect the performance of their duties.

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4 - PROCUREMENT DOCUMENT CONTROL

4.1 PURPOSE

This section sets forth requirements for preparation, review, and approval of procurement documents and changes thereto in order to control the quality of vendor furnished safety-related plant items and services.

4.2 GENERAL

4.2.1 Procedures/instructions shall be established and implemented to control procurement-related activities such as procurement planning; preparation, review, approval and control of procurement documents; vendor selection; bid evaluations; and review and concurrence of vendors' quality assurance programs. These procedures/instructions shall clearly delineate the sequence of actions to be accomplished in the preparation, review, and approval of procurement-related documents and shall identify those positions or groups responsible for performing those actions.

4.2.2 Procurement documents for items (other than commercial grade off-the-shelf items, as defined in 10CFR21) and for services shall require, where necessary, vendors or subvendors to provide a quality assurance program consistent with the applicable provisions of the QA Program.

4.2.3 As deemed necessary, the procurement documents will provide for right of access to the vendor's facilities and records for source inspection/audit by Supply System or its designee.

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- 4.2.4 Procurement documents shall contain or reference applicable technical requirements (such as regulations, specifications, drawings, codes, and standards), test and inspection requirements, and special process instructions that must be complied with by vendors.
- 4.2.5 Procurement documents shall contain, as applicable, requirements which identify the documentation (such as drawings, specification, inspection and test records, personnel and procedure qualifications, Certificates of Conformance or equivalent certifications, and material chemical and physical test results) to be prepared, maintained, submitted, or made available to Supply System for review and/or approval.
- 4.2.6 Procurement documents shall be reviewed by QA personnel. This review will be performed and documented to assure that quality requirements are correctly stated, that they can be inspected and controlled, and the procurement documents have been prepared to incorporate appropriate provisions of 4.2.2 through 4.2.5.
- 4.2.7 Changes (other than those that are of administrative nature) to approved procurement documents shall be subjected to the same degree of control that was applied during the preparation of original procurement documents.

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5 - INSTRUCTIONS, PROCEDURES, AND DRAWINGS

5.1 PURPOSE

This section sets forth requirements for instructions, procedures, and drawings for activities that affect safety-related functions of plant items.

5.2 GENERAL

5.2.1 Activities that affect safety-related functions of plant items shall be described by and accomplished through implementation of documented procedures, instructions, or drawings, as appropriate.

5.2.2 Procedures/instructions shall be established to assure that procedures, instructions or drawings include appropriate quantitative (such as dimensions, tolerances, and operating limits) or qualitative (such as comparative workmanship samples) acceptance criteria for determining satisfactory work performance and quality compliance.

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6 - DOCUMENT CONTROL

6.1 PURPOSE

This section sets forth requirements for the control of documents pertaining to activities that affect safety-related functions of plant items.

6.2 GENERAL

6.2.1 Procedures shall be established and implemented to control the preparation, review, approval and issuance of documents, including changes thereto, which pertain to activities affecting safety-related functions of plant items. As a minimum, the following types of documents shall be controlled:

- a. Operational QA Program Description.
- b. Supply System Functional Manual for Nuclear Operation.
- c. Design documents (e.g., calculations, drawings, specifications, analyses) including documents related to computer codes.
- d. As-built documents.
- e. Final Safety Analysis Reports.
- f. Procurement documents.

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6.2.1 (contd.)

- g. Administrative procedures which address operations, maintenance, technical specifications, inservice inspection and testing, modification, calibration, testing, fuel handling and procurement.
- h. Nonconformance reports.

6.2.2 Procedures that control the preparation, review, approval and issuance of documents, including changes thereto, shall contain provisions which provide assurance that:

- a. Type documents listed in paragraphs 6.2.1.c through 6.2.1.h are reviewed for technical adequacy, by qualified individuals, prior to approval for release.
- b. Type documents listed in paragraphs 6.2.1.e through 6.2.1.h are reviewed for inclusion of appropriate quality requirements and concurred with by qualified Quality Assurance personnel, prior to approval for release.

Note: Review and concurrence requirements by QA personnel will be considered met either by QA participation in the Plant Operating Committee or the Test Working Group, as applicable, or by providing dated signatures on the documents reviewed or on documents traceable to the documents reviewed.

- c. Documents are approved for release by authorized personnel prior to implementation.

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6.2.2 (contd.)

- d. Documents are available at the location where the prescribed activity will be performed prior to commencing the work.
- e. Changes (other than those that are of administrative nature) to approved documents are reviewed and approved by the same organizations that performed the original review and approval unless delegated to other appropriately qualified organizations.
- f. Approved changes to documents are promptly incorporated into instructions, procedures, drawings and other appropriate documents.
- g. Obsolete or superseded documents are controlled to prevent their inadvertent use.

6.2.3 Current revision status of documents, such as instructions, procedures, drawings, and specifications shall be identified and maintained.

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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/off-the-shelf items as defined in 10CFR21) for safety-related structures, systems and components:

- a. 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
- b. 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.

7.2.3 Evaluation of vendors, including review and concurrence of vendors' QA programs, shall be performed by QA 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:

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7.2.3 (cont'd)

- 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 facilities and QA program to determine his capability to supply a product which meets design, manufacturing, and quality requirements.

7.2.4 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 where the quality of an item can be verified by review of test reports, inspection upon receipt, or other means.

7.2.5 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 receiving documentation.

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7.2.5 (Cont'd)

- 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.

7.2.6 Documentary evidence that vendor-furnished items conform to procurement requirements shall be retained at the site for the life of the items.

7.2.7 The validity of vendor-furnished Certificates Of Conformance (or equivalent certifications) shall be evaluated by either audits/surveillances of the vendor or independent inspection or test of the items. Such evaluations shall be performed at intervals commensurate with the vendor's past quality performance.

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8 - IDENTIFICATION AND CONTROL OF MATERIALS, PARTS, AND COMPONENTS

8.1 PURPOSE

This section sets forth requirements for identification and control of safety-related materials, parts, and components.

8.2 GENERAL

Procedures and/or instructions shall be established and implemented for the identification and control of items so as to prevent use of incorrect or defective items. These procedures and/or instructions shall assure that:

- a. Identification requirements for items are established during initial planning (i.e. during generation of specifications and design drawings).
- b. Identification of the item is maintained by heat number, part number, serial number or other appropriate means.
- c. Identification of the item is maintained either on the item or on records traceable to the item.
- d. The traceability of the item to appropriate documentation, such as specific inspection/test records, code data reports, and physical/chemical mill test reports, is maintained when such traceability is required by codes, standards or specifications.
- e. Identification of the item is maintained throughout fabrication, shipping, installation and use of the item.

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8.2 (Cont'd.)

- f. The location and method (such as application of metal tags or markings) of identification do not affect the safety-related function of the item.
- g. Correct identification of the item is verified prior to release of the item for fabrication, shipping, assembling and installation.

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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., Licensing & Assurance, Power Generation, Technology, and Plant organizations, etc.).
- 9.2.5 Qualification records of procedures, equipment, and personnel associated with special processes shall be established, filed, and maintained.

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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
- g. Identity of inspector and/or data recorder.

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- 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 Licensing & Assurance organization. However, personnel from the performing groups (Operations, Maintenance, Technical, Test & 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 Licensing & 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.

11 - TEST CONTROL11.1 PURPOSE

This section sets forth requirements for testing to assure that safety-related plant items will perform satisfactorily in service.

11.2 GENERAL

11.2.1 Tests required to demonstrate that plant items will perform satisfactorily in service shall be identified, documented, and performed in accordance with written and approved procedures/instructions.

11.2.2 Tests will include, as appropriate, the following:

- a. Prototype qualification tests.
- b. Proof tests prior to installation.
- c. Preoperational and startup tests.
- d. Surveillance tests during plant operation.
- e. Tests associated with plant modification and maintenance activities.

11.2.3 Test procedures/instructions shall incorporate or reference, as appropriate, the following:

- a. Instructions for performing the test.

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11.2.3 (Cont'd.)

- b. Test prerequisites such as calibrated instruments, adequate test equipment, completeness of the item to be tested, and suitable environmental conditions.
- c. Mandatory inspection hold points.
- d. Acceptance/rejection criteria.
- e. The requirements and acceptance limits contained in the applicable design documents.
- f. Methods of documenting or recording test data and results.
- g. Provisions for assuring that test prerequisites have been met.

11.2.4 Test results shall be documented, evaluated, and their status recorded by a responsible individual or group.

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12 - CONTROL OF MEASURING AND TEST EQUIPMENT

12.1 PURPOSE

This section sets forth the requirements to establish those measures which will assure that tools, gages, instruments, and other measuring and testing devices used in activities affecting quality are controlled, calibrated, and adjusted at specified periods in order to maintain accuracy within necessary limits.

12.2 GENERAL

12.2.1 Measuring and test equipment (M&TE) shall be calibrated and adjusted using approved procedures/instructions.

12.2.2 A calibration program for the control and use of M&TE shall be established, and implemented. This program, as a minimum, shall provide for:

- a. Unique identification of the item and its traceability to the calibration test data.
- b. Labeling or tagging (or otherwise controlling) to indicate the due date of the next calibration.
- c. Calibration technique and frequency.
- d. Generation and maintenance of records which indicate the complete listing of all items under the calibration system together with their current calibration status.
- e. Controlled environment conditions for sensitive and close tolerance M&TE.

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- 12.2.3 M&TE shall be calibrated against certified calibrating standards having known valid relationships to nationally recognized standards. If no national standards exist, the basis for calibration will be documented.
- 12.2.4 Calibrating standards that are used for calibrating M&TE shall have tolerance not greater than one fourth (1/4) the tolerance of M&TE. Tolerances greater than 1/4 will be acceptable when limited by the state-of-the art. Calibrating standards shall be calibrated against higher level standards.
- 12.2.5 M&TE shall be calibrated and maintained at specified periods based on the required accuracy, purpose, stability characteristics, and other conditions affecting the measurement.
- 12.2.6 When an item of M&TE is found to be out of calibration, an evaluation shall be made and documented to determine the validity of previous inspection/test results and the disposition to be made of items previously inspected/tested.

13 - HANDLING, STORAGE AND SHIPPING13.1 PURPOSE

This section establishes controls for cleaning, handling, storage, packaging, shipping and preservation of safety-related items.

13.2 GENERAL

- 13.2.1 Cleaning, handling, storage, packaging, shipping and preservation of items shall be accomplished in accordance with written procedures/instructions, to prevent damage, loss or deterioration by environmental conditions. These procedures/instructions shall be prepared in accordance with the design and procurement requirements of the items.
- 13.2.2 When necessary for particular items, special coverings, special equipment and special protective environments, such as inert gas atmosphere, specific moisture content levels, and temperature levels, shall be specified, provided, and their existence verified.
- 13.2.3 Responsible personnel shall assure that items are identified, inventoried, adequately packaged to ensure integrity during transit, properly addressed and released and that these activities are documented.
- 13.2.4 Measures shall be established and implemented to control the storage of chemicals, reagents (including control of shelf-life), lubricants and other consumable materials for safety-related application.

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14 - INSPECTION, TEST AND OPERATING STATUS

14.1 PURPOSE

This section sets forth the requirements for identifying the inspection, test, and operating status of safety-related items.

14.2 GENERAL

Procedures/instructions shall be established and implemented for identifying the inspection, test, and operating status of plant items. These procedures/instructions shall include provisions for assuring that:

- a. The application and removal of status indicators (stamps, tags, labels, routing cards, physical barriers, etc.) is controlled.
- b. Items which require inspections and tests are identified and controlled to preclude bypassing of such inspections and tests.
- c. The status of inspections and tests performed upon individual plant items is indicated by the use of status indicators or other suitable means.
- d. The operating status of nonconforming, inoperative, or malfunctioning installed plant items is documented and identified to prevent inadvertent operation.

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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).
- 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 Licensing & Assurance shall review nonconformances to assure that dispositions have been evaluated and approved.

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- 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 Licensing & Assurance organization to identify quality trends. Significant results shall be referred to appropriate management for review and assessment.

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16 - CORRECTIVE ACTION

16.1 PURPOSE

This section sets forth the requirements for identification, correction, documentation, and reporting of conditions adverse to quality such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances.

16.2 GENERAL

16.2.1 Conditions adverse to quality shall be evaluated and the need for corrective actions determined in accordance with established procedures. These procedures shall provide for prompt identification and correction of conditions.

16.2.2 For conditions significantly adverse to quality, the corrective action procedures shall provide for the following:

- a. Determination of the cause of the condition.
- b. Corrective action so as to preclude repetition of the condition.
- c. Verification of the implementation of the corrective action.

16.2.3 Conditions significantly adverse to quality, its cause, and the corrective action taken shall be documented and reported to appropriate levels of management for review and assessment.

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17 - QUALITY ASSURANCE RECORDS

17.1 PURPOSE

This section sets forth requirements for generation, transmittal, retention, and maintenance of quality assurance records for Supply System's nuclear power plants.

17.2 GENERAL

17.2.1 Sufficient records shall be maintained to furnish evidence of the quality of safety-related plant items and activities. As a minimum these records shall include the following:

- a. Operating logs
- b. Results of design reviews, inspections, tests, audits, and material analysis
- c. Monitoring of work performance
- d. Qualifications of personnel, procedures, and equipment.
- e. Drawings, specifications, procedures, and procurement documents.
- f. Nonconformance and corrective action reports
- g. Records as required by plant technical specifications.

17.2.2 Inspection and test records shall identify the following where applicable:

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17.2.2 (Cont'd)

- a. Inspector and/or data recorder
- b. The type of observation
- c. The date and results of inspection or test.
- d. Acceptability of results.
- e. The action taken to resolve any deficiencies noted.

17.2.3 Quality assurance records shall be generated (prepared, reviewed, and approved), accumulated, transmitted for incorporation into the records retention system, retained, maintained, and controlled in accordance with documented procedures and/or instructions.

17.2.4 The quality assurance records shall be organized and filed so that each document is identifiable and retrievable.

17.2.5 The quality assurance records shall be filed and maintained in facilities that provide protection from possible deterioration or damage and shall be controlled to prevent loss.

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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 corporate Quality Assurance, 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.
- 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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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. At least two (2) years of this ten (10) years experience shall include detailed involvement in the administration of and adherence to the quality assurance program in a significant management role directly involving nuclear power plants.

I.2 Operational Assurance Programs Manager

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

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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.

*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.

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APPENDIX 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 Licensing & 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.

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).

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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.
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.

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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.
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.

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11.5 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) in lies 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' 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.

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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.
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

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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.
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.

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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.
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)".

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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-8-601).
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.
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:

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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 cases by case basis for maintenance and modification work to be performed.

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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

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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 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:

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

II.11 REGULATORY GUIDE 1.74 (February 1974) - "Quality Assurance Terms and Definitions"

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:

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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:

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 either:
 - a. A 2-hour vault meeting NFPA (National Fire Protection Association) No. 232-1975 without additional provisions or
 - b. 2-hour rated file containers meeting NFPA No. 232-1975 (Class B) without additional NFPA provisions or

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- 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.
 - (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.

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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)".
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.

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II.14 REGULATORY GUIDE 1.116, REV. O-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. O-R (May 1977), subject to the following:

1. Regulatory Position C.3 of Regulatory Guide 1.116, Rev. O-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

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change provided procedural controls, requiring evidence of engineering or design change approval prior to placing the affected item into service, are instituted.

II.15 REGULATORY GUIDE 1.123, REV. 1 (July 1977) - "Quality Assurance Requirements for Control of Procurement of Items and Services for Nuclear Power Plants"

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).