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# OPERATIONAL QUALITY ASSURANCE PROGRAM DESCRIPTION (WPPSS-QA-004)

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Director, Quality

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

1.2 SUPPLY SYSTEM ORGANIZATION

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

1.3 MANAGEMENT RESPONSIBILITIES

1.3.1 The Managing Director 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 Supply System authority on matters involving quality. The Managing Director operates through the Vice President, Nuclear Operations to provide for engineering, construction, procurement, quality assurance/quality control, and operations activities for Supply System nuclear power plants.

1.3.2 The Vice President, Nuclear Operations reports to the Managing Director and is responsible for:

- a. Safe and efficient operation of Supply System nuclear power plants.
- b. Safe and successful completion of initial testing activities for WNP-2 (through the WNP-2 Plant General Manager).

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- c. Establishing and monitoring maintenance systems common to operational nuclear power plants.
- d. Training of nuclear plant staff and support personnel.
- e. Development of programs and procedures to ensure uniform application at operational nuclear power plants.
- f. Radiological protection, fire protection, plant security, emergency preparedness, and radioactive waste management.
- 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.
- i. Quality Assurance program definition, implementation and effectiveness.
- j. Reviewing in-house and external events for determination of cause and necessary corrective action to minimize potential for recurrence at Supply System nuclear facilities.
- k. Engineering design and analysis support for WNP-2.
- l. Appoint in writing the members to the Corporate Nuclear Safety Review Board (CNSRB) including the Chairman and Alternate Chairman.

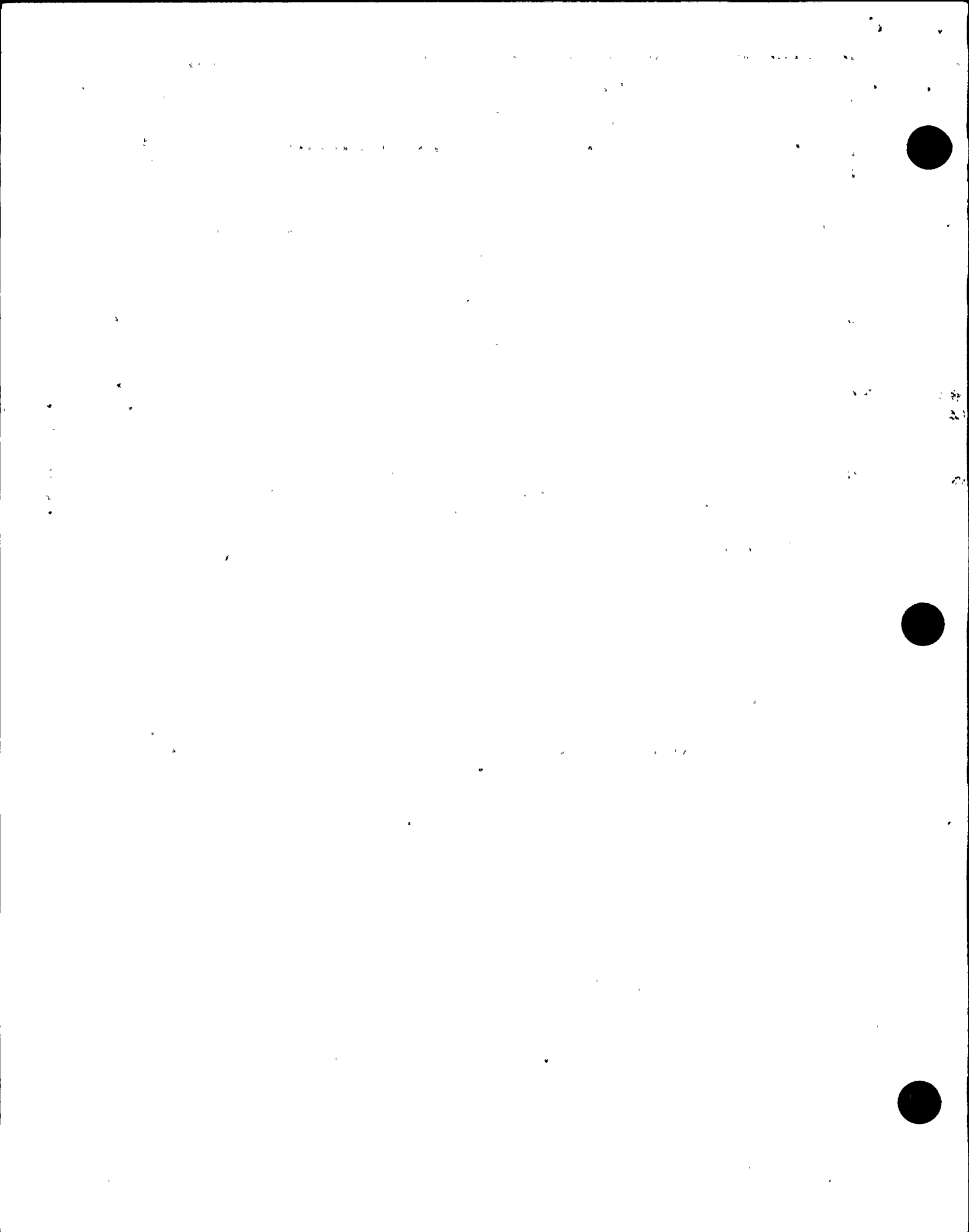
To accomplish this role, the Vice President, Nuclear Operations operates through the Plant General Manager; Director, Engineering; Director, Quality; Director, Nuclear Training; Director, Support Services; Director, Regulatory and Industry Affairs; Corporate Chemist; and Corporate Radiological Health Officer.

- 1.3.2.1 The Director, Quality reports to the Vice President, Nuclear Operations and is directly responsible for the definition, direction, and effectiveness of the overall Quality Assurance Program during design, construction, and operation phases of all Supply System nuclear power plants. Major functions of the Quality organization are:

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- a. Establishing and maintaining assurance programs, Nuclear Operation Standards, and directorate procedures which incorporate nuclear safety considerations and comply with the Quality Assurance (QA) criteria delineated in Appendix B to 10CFR 50.
- b. Assuring through reviews, surveillances, assessments, inspections, and audits that Supply System and its suppliers' activities are being performed in a safe and legal manner in accordance with written and approved documents which comply with applicable requirements defined by the assurance programs and Nuclear Operation Standards.
- c. Assessing the overall effectiveness of assurance programs' implementation, including evaluation of plant performance and reporting conclusions to the Managing Director.
- d. Stopping unsatisfactory work and controlling further processing, delivery, or installation of nonconforming material.
- e. Establishing and maintaining adequate and qualified assurance staffing levels.
- f. Providing trending of deficiencies to identify areas where corrective actions have not minimized recurrence.
- g. Establishing, maintaining, and controlling the Operational QA Program Description (WPPSS-QA-004) and the Supply System Functional Manual for Nuclear Operation.
- h. Certifying Supply System examination personnel for non-destructive examinations (NDE).
- i. Qualifying and certifying Supply System Audit Team Leaders, QC inspection and test personnel.
- j. Acquiring and maintaining ASME Certificates of Authorization and/or Owners Certificates.
- k. Ensuring that a written agreement with an Authorized Inspection Agency is obtained to provide for Authorized Nuclear In-Service Inspection Services.
- l. Establishing, managing, and administering the implementation and effectiveness of the Nuclear Safety Issues Program (NSIP).





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- m. Administering the WNP-2 industry and in-plant operating experience programs.
- n. Providing the Independent Safety Engineering Group (ISEG) functions for assessing programs, processes and activities of various areas and operations that affect plant nuclear safety and reliability.
- o. Administering the nonconforming condition and corrective action processing including assisting the cognizant organization in evaluation and determination of the root cause for plant-related events.

The Director, Quality has effective communication channels with all Supply System senior management positions and has no duties or responsibilities unrelated to quality assurance. To accomplish the above defined role, the Director, Quality operates through the Manager, Quality Services; Manager, Quality Programs; Manager, Plant Quality Control; and WNP-1 Quality Assurance staff.

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

A management representative from the Quality Organization is a member of the Plant Operating Committee (see WNP-2 Technical Specification) and has sufficient authority and organizational freedom to identify problems; to initiate, recommend, or provide solutions; and to verify implementation of solutions. The representative has no duties or responsibilities unrelated to quality assurance matters and has effective communication channels with all plant supervisory and management personnel.

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

The 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 Manager may recommend that the unit be shut down; the Plant General Manager, however, has the final responsibility for the overall evaluation of all aspects and implications of shutting down the operating unit.

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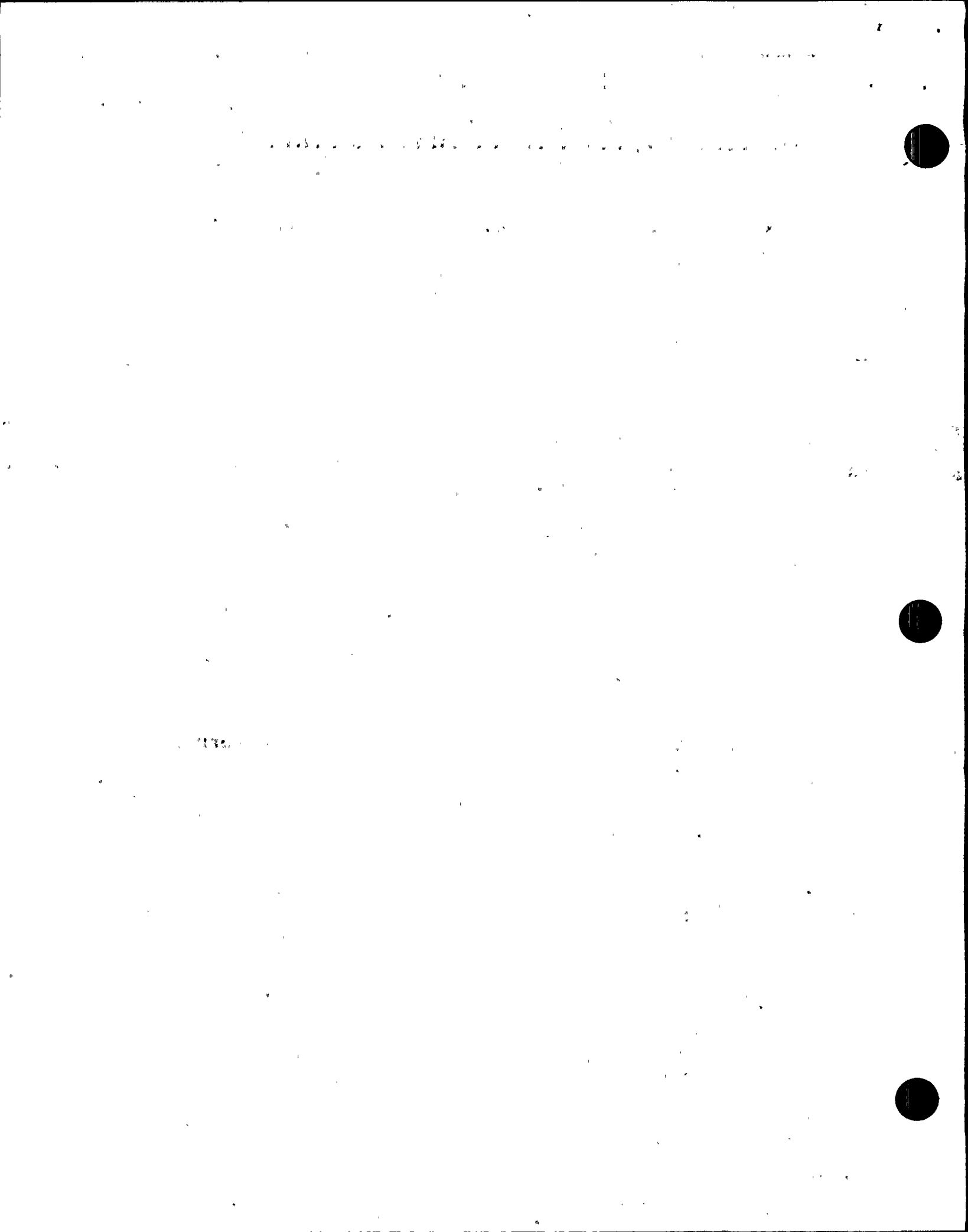
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Qualification requirements for this position is described in Appendix I, Qualification Requirements. The Manager, Quality Services is specifically responsible for:

- a. Reviewing and concurring with programs, procedures, and/or instructions affecting safety, including changes thereto, to assure that applicable quality assurance requirements have been identified and specified therein.
- b. Verifying internal Supply System activities to assure that they are being conducted in a safe and legal manner in accordance with approved programs, plans, procedures, or instructions. Such verifications will be in the form of audits, technical assessments, or quality assurance surveillances. Included in the scope of these verifications are: (i) control room operations; post modification/major maintenance testing and operational tests; maintenance, modification, repair, and calibration; personnel training; and refueling activities; (ii) activities associated with satisfying technical specifications and in-service inspection and testing; (iii) activities associated with the implementation of security, fire protection, and radiological protection programs; (iv) activities including engineering, maintenance, modifications, operational problem resolution, technical support activities, and operational analysis that affect plant nuclear safety and reliability; and (v) activities related to procurement, storage and issuance of parts, materials, and services to assure implementation of QA Program and management requirements.
- c. Providing the Independent Safety Engineering Group (ISEG) functions involving:
  - (i) Assessing programs, processes and activities including engineering, maintenance, modifications, operational problems, technical support activities and operational analysis that affect plant nuclear safety and reliability.
  - (ii) Assessing plant operations and performance regarding conformance to regulatory requirements.
  - (iii) Evaluating industry operating experience, including recommendations for improvements in overall plant performance involving plant practices, procedures and equipment.
  - (iv) Providing certain key operating experience information to operators and other plant personnel.



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1.3.2.1.2 The Manager, Quality Programs reports to the Director, Quality and is directly responsible for;

- a. administration of the nonconforming condition and corrective action program;
- b. certifying Supply System nondestructive examination, QC, and test personnel; and
- c. maintaining Quality Program documents.

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

1.3.2.1.3 The Manager, Plant Quality Control QC reports to the Director, Quality and is directly responsible for performance of in-plant QC functions.

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

1.3.2.1.4 WNP-1 OA Staff report to the Director, Quality and are primarily concerned with assuring that the records and equipment of the project are maintained such that they may be shown to meet quality standards on restart.

1.3.2.2 The Plant General Manager for WNP-2 reports to the Vice President, Nuclear Operations and is directly responsible for safe and efficient operation of the plant in accordance with the requirements of the Operating License, the Plant Technical Specifications, and the Plant Procedures Manual. Some of the specific responsibilities of the Plant General Manager are:

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

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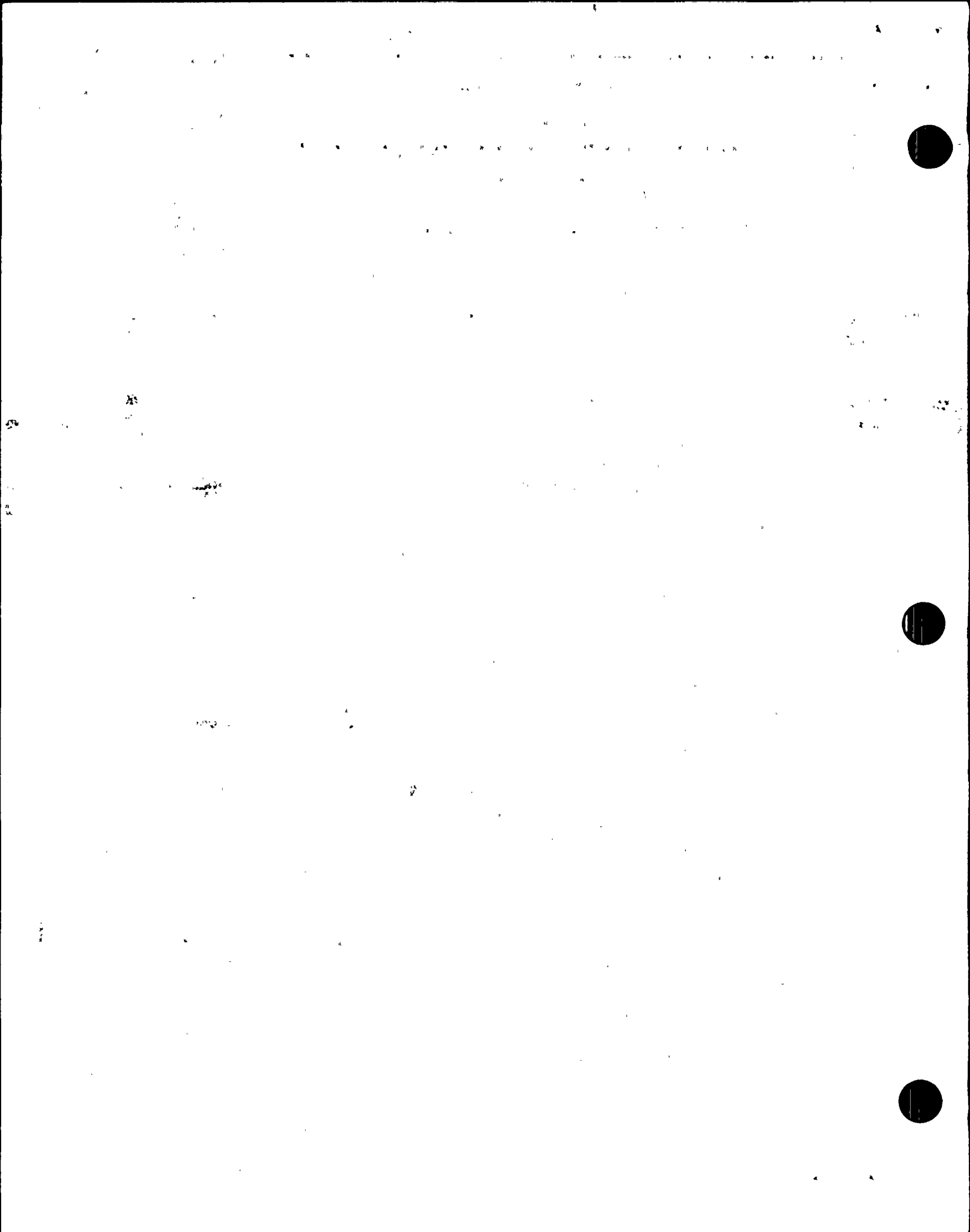
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- f. Ensuring calibrated measuring and test equipment (including installed instruments covered by the Plant Technical Specifications) is utilized at WNP-2.
- g. Dispositioning of nonconforming items.
- h. Implementing the in-service testing program.
- i. Developing, maintaining and implementing a fire protection program.
- j. Off-Site Dose Calculation Manual (ODCM).
- k. The Radiological Environmental Monitoring Program and Bioassay Program.
- l. Environmental sciences function which performs nonradiological monitoring and fitness for duty chemical analysis.

The Plant General Manager operates through the Operations Manager, Maintenance Manager, Radiation Protection Manager, Chemistry Manager, and Planning/Scheduling/Outage Manager. The plant organization and functional responsibilities of key plant personnel are described in Chapter 13 of the Final Safety Analysis Report for WNP-2.

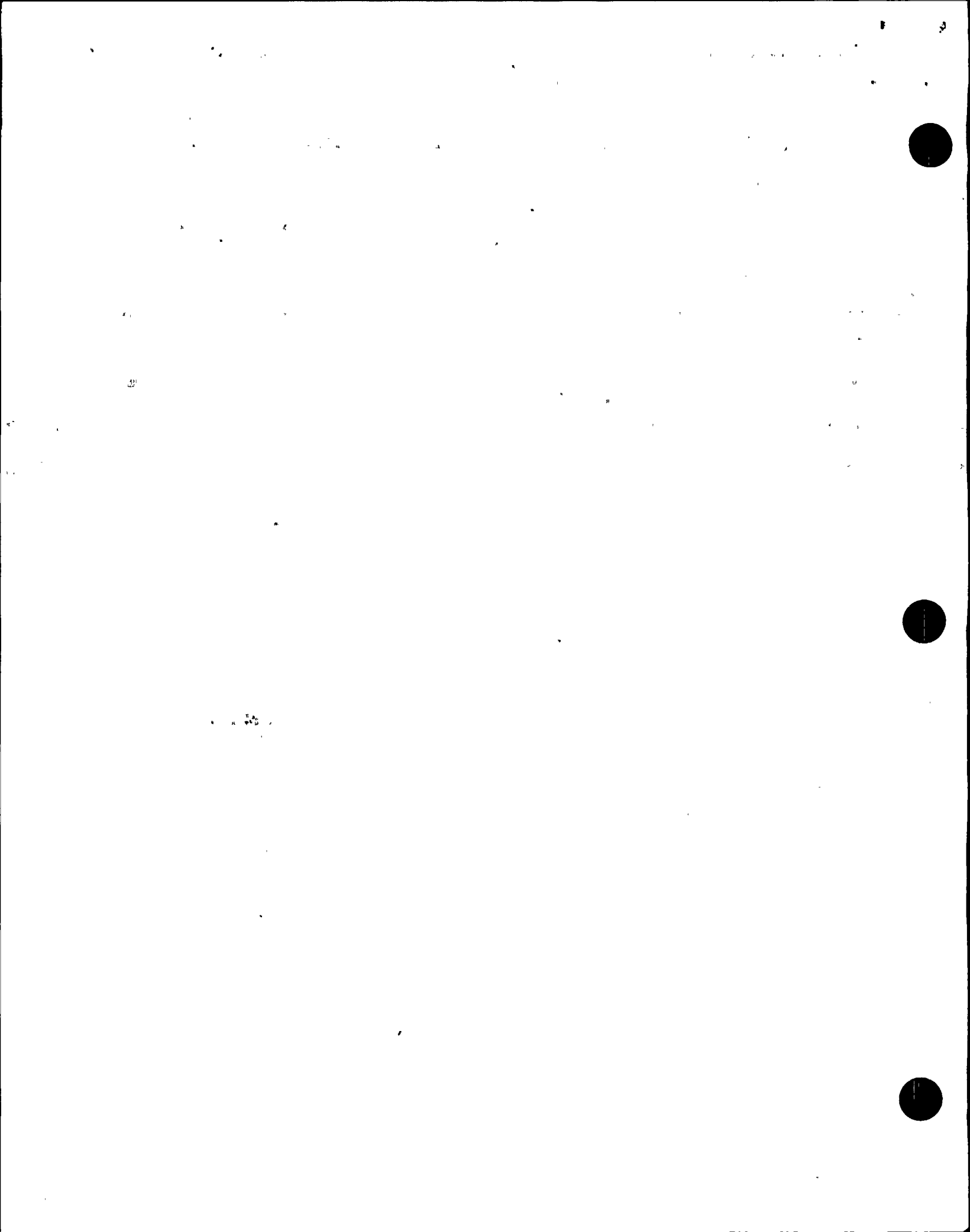
- 1.3.2.3 The Director, Nuclear Training reports to the Vice President, Nuclear Operations and is responsible for nuclear training policy and implementation, fire prevention and protection training, technical maintenance of the simulator to support operator training and testing, and training records management for nuclear plant operations.
- 1.3.2.4 The Director, Support Services reports to the Vice President, Nuclear Operations and is responsible for the development and implementation of policies and programs which support operation of Supply System nuclear power plants in the areas of: safeguards and physical security; fitness for duty; emergency preparedness; industrial safety and health; administration and records management; procurement, inventory, spare parts engineering, vendor quality, and warehousing. To accomplish this role, the Director, Support Services operates through the Manager, Security Programs; Manager, Emergency Preparedness; Manager, Administration and Records Management, and Manager, Procurement.





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- 1.3.2.4.1 The Manager, Security Programs reports to the Director, Support Services and is responsible for overall Supply System security activities. The Manager, Security Programs is specifically responsible for:
- a. Administering a security program which includes preemployment screening, physical security surveys and investigations, loss prevention, and fitness for duty.
  - b. Managing the security force by assuring that physical security is consistent with needs and is maintained within individual plant safeguards security plans.
  - c. Providing training, administrative, and technical support to the Plant General Manager in the area of plant security.
- 1.3.2.4.2 The Manager, Emergency Preparedness reports to the Director, Support Services and is responsible for developing and maintaining an emergency response program that includes plans, implementing procedures, training, and drills and exercises.
- 1.3.2.4.3 The Manager, Administration and Records Management reports to the Director, Support Services and is responsible for:
- a. Developing and implementation of administrative controls for plant procedures, processes and systems to maintain nuclear plant design, construction, and operating records.
  - b. Providing program definition and policy development for Supply System records management activities, which includes processing, retrieval, storage and dispositioning of records.
  - c. Providing administrative support functions necessary for the maintenance of manuals and procedures.
  - d. Managing an administrative process by which engineering-related activities and commitments are assigned, scheduled, tracked, and dispositioned.



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- 1.3.2.4.4 The Manager, Procurement reports to the Director, Support Services and is responsible for contracting, procurement and storage control services that support operation and maintenance of Supply System nuclear power plants, the sale and demolition of Projects WNP-3, WNP-4 and WNP-5, and the definition and implementation of the source surveillance/audit program for verification of activities performed by Supply System vendors (including the Nuclear Steam Supply System vendors). He is further responsible for assuring that items received for WNP-2 meet the required quality standards. These responsibilities include:
- a. Development of Supply System 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.
  - d. Providing project management for disposition of assets from terminated power projects and disposition of major assets surplus to operating power projects.
  - e. Maintaining the Restricted Use Equipment List (RUEL).
  - f. Providing criteria for Class 1 and commercial grade dedicated spare parts procurement.
  - g. Establishing vendor witness points for inspection and release of material/equipment for shipment.
  - h. QC receipt inspection of materials and equipment received by the Supply System.
  - i. Establishing and maintaining evaluated vendors list.
  - j. Planning, coordinating, and performing source surveillances, source inspections, and external audits to verify implementation of vendors' QA/QC programs.
  - k. Reviewing and approving vendor furnished QA/QC procedures and programs.

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1. Reviewing for acceptance other utility audits furnished through the Nuclear Procurement Issues Committee (NUPIC) or Nuclear Energy Institute (NEI).

1.3.2.5 The Corporate Chemist reports to the Vice President, Nuclear Operations and is responsible for policy development, oversight, and integration of matters pertaining to chemistry at WNP-2.

1.3.2.6 The Corporate Radiological Health Officer reports to the Vice President, Nuclear Operations and is responsible for the development and oversight of radiation protection policies and programs which support operation of WNP-2. The Corporate Radiological Health Officer provides support to WNP-2 through coordination of radiation protection projects and long range planning, program oversight, audits and evaluation of the Radiation Protection Program.

1.3.2.7 The Director, Regulatory and Industry Affairs reports to the Vice President, Nuclear Operations and is responsible for:

- a. Acquiring and maintaining operating licenses of Supply System nuclear power plants.
- b. Defining and implementing programs which assure that licensing submittals receive an adequate technical review from cognizant Supply System, NSSS, or AE personnel prior to transmittal.
- c. Tracking licensing commitments and taking action necessary to assure that they are being met in a timely manner.
- d. Providing coordinated development of responses and comments to new laws, regulations, regulatory guides, and other regulatory issuances.

The Director, Regulatory and Industry Affairs operates through the Manager, Licensing; Manager, Regulatory Services; and Manager, Special Projects.

1.3.2.8 The Director, Engineering reports to the Vice President, Nuclear Operations and is responsible for providing project engineering and design control, nuclear fuel supply, and maintenance/surveillance engineering support as required for WNP-2. The Director, Engineering is specifically responsible for:

- a. Providing and implementing design control programs and processes by which plant design, and design changes, and modifications are defined, controlled, and verified.



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- b. Implementing programs for pre-service inspection, in-service inspection, and nondestructive examinations and materials and welding engineering.
- c. Providing engineering support for technical resolution of nuclear safety and licensing issues.
- d. Maintaining a current engineering data base for WNP-2 including; Master Equipment List (MEL), Safety Related Material (SRM), Class 1 Electrical (C1E).
- e. Implementing configuration control by establishing site-specific policy, procedures, and methods that allow control and accountability.
- f. Management of major plant modifications, maintenance tasks, and contractor support.
- g. The supply, engineering, and efficient in-core management of nuclear fuel.
- h. Transient analysis and licensing issue resolution to support technical specification changes and reload fuel licensing.
- i. Reliability and availability analysis to improve plant performance, safety, and maintainability.

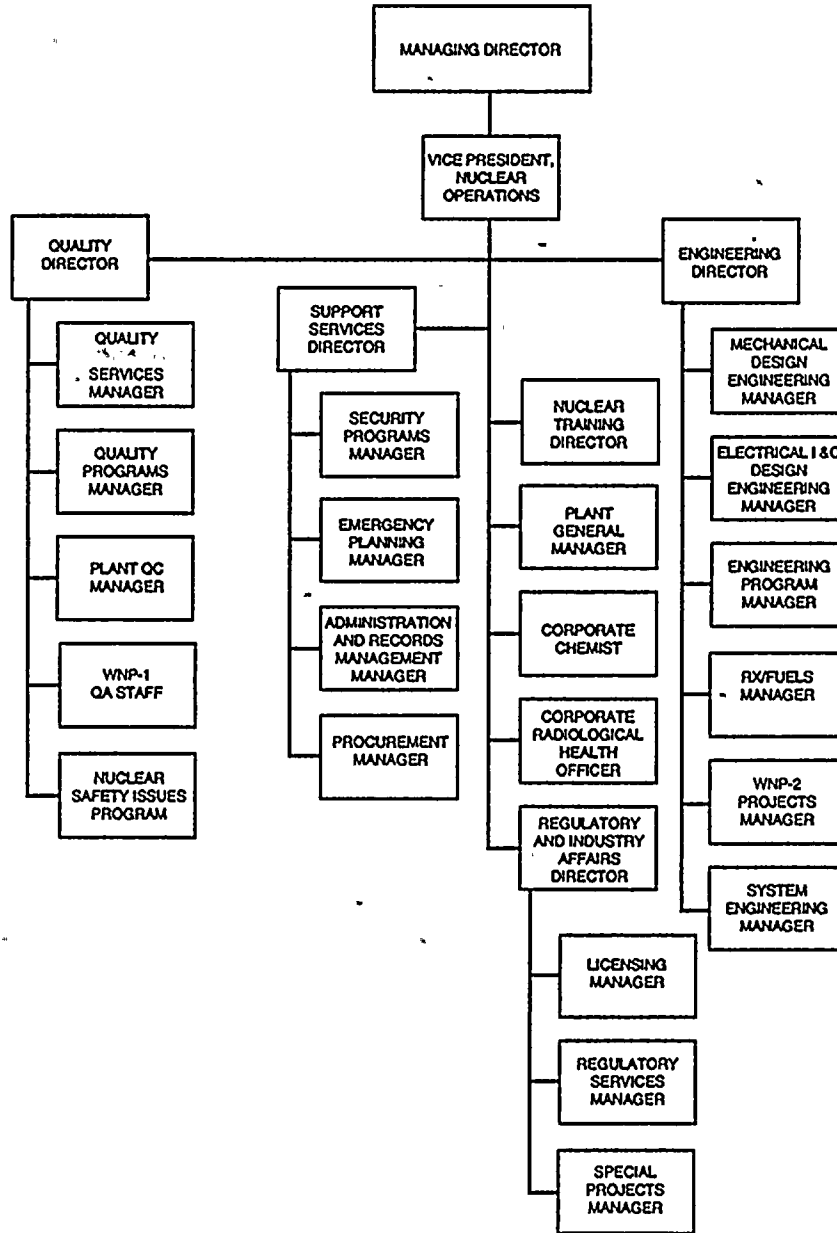
The Director, Engineering operates through the Manager, Mechanical Design Engineering; Manager, Electrical/I&C Design Engineering; Manager, WNP-2 Projects; Manager, Engineering Programs; Manager, Systems Engineering; and Manager, Reactor/Fuels. The Engineering organization and functional responsibilities of key personnel are described in Chapter 13 of the Final Safety Analysis Report for WNP-2.





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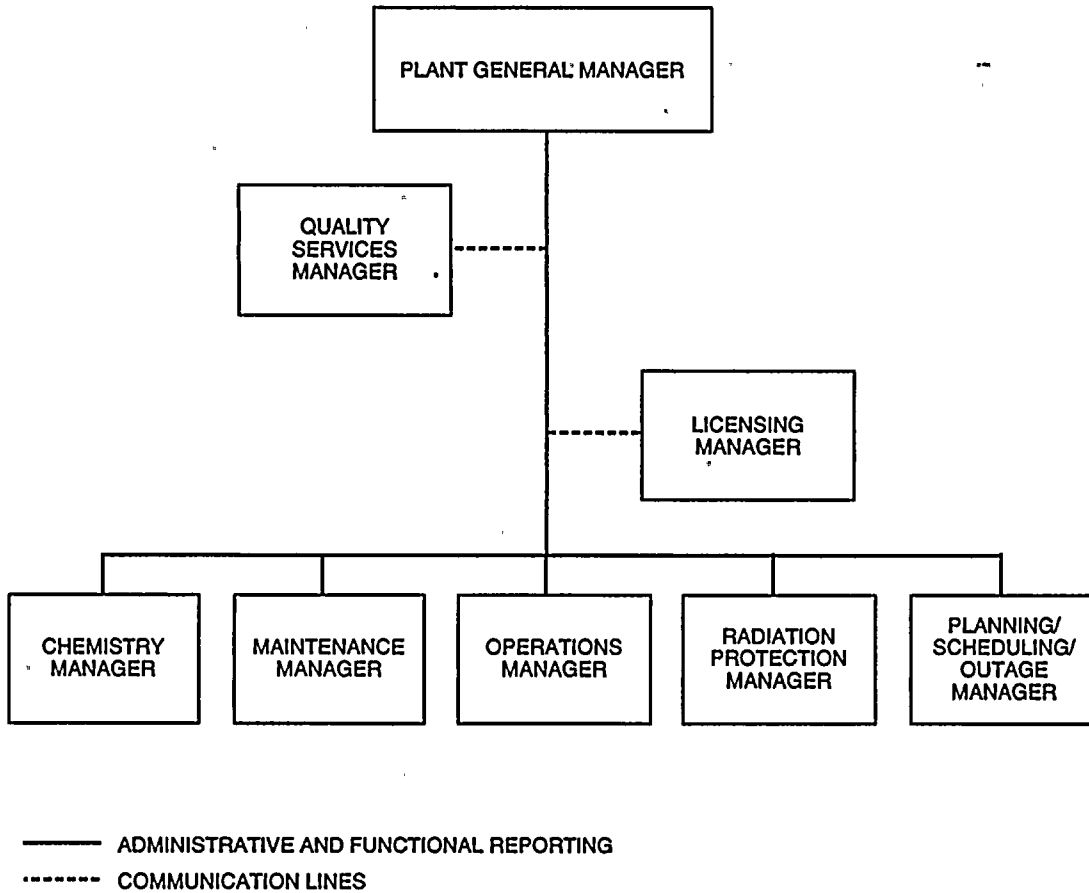
FIGURE 1-1



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FIGURE 1-2



**Supply System Organization  
Relative To Operational QA**

890853.2

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- 2.1 This section provides an overall description of the QA Program that will be applied to initial testing and subsequent operation and maintenance activities throughout the life of Supply System nuclear power plants.
- 2.2 GENERAL
- 2.2.1 The QA Program will be implemented through a series of Nuclear Operation Standards (NOSs) contained in the Supply System Functional Manual for Nuclear Operation. In turn, these NOSs will be implemented by Supply System organizational procedures, programs, or plans which prescribe detailed methods for functional accomplishment. The NOSs will address the applicable requirements of Appendix B to 10CFR 50 and Sections 1 through 18 of the QA Program. A matrix of Nuclear Operation Standards cross referenced against each criteria of Appendix B to 10CFR 50 is included in Table 2-1. The NOSs and implementing procedures, programs, or plans will collectively comply with the regulatory positions of QA-related Regulatory Guides as identified and modified in Appendix II, Position Statements.
- 2.2.2 A list of safety-related items that will be subject to the applicable controls of the QA Program is included in the Final Safety Analysis Report (FSAR) for the applicable Supply System nuclear power plant. Changes to this listing shall be controlled by the Engineering, General Manager and approved by the Plant General Manager.

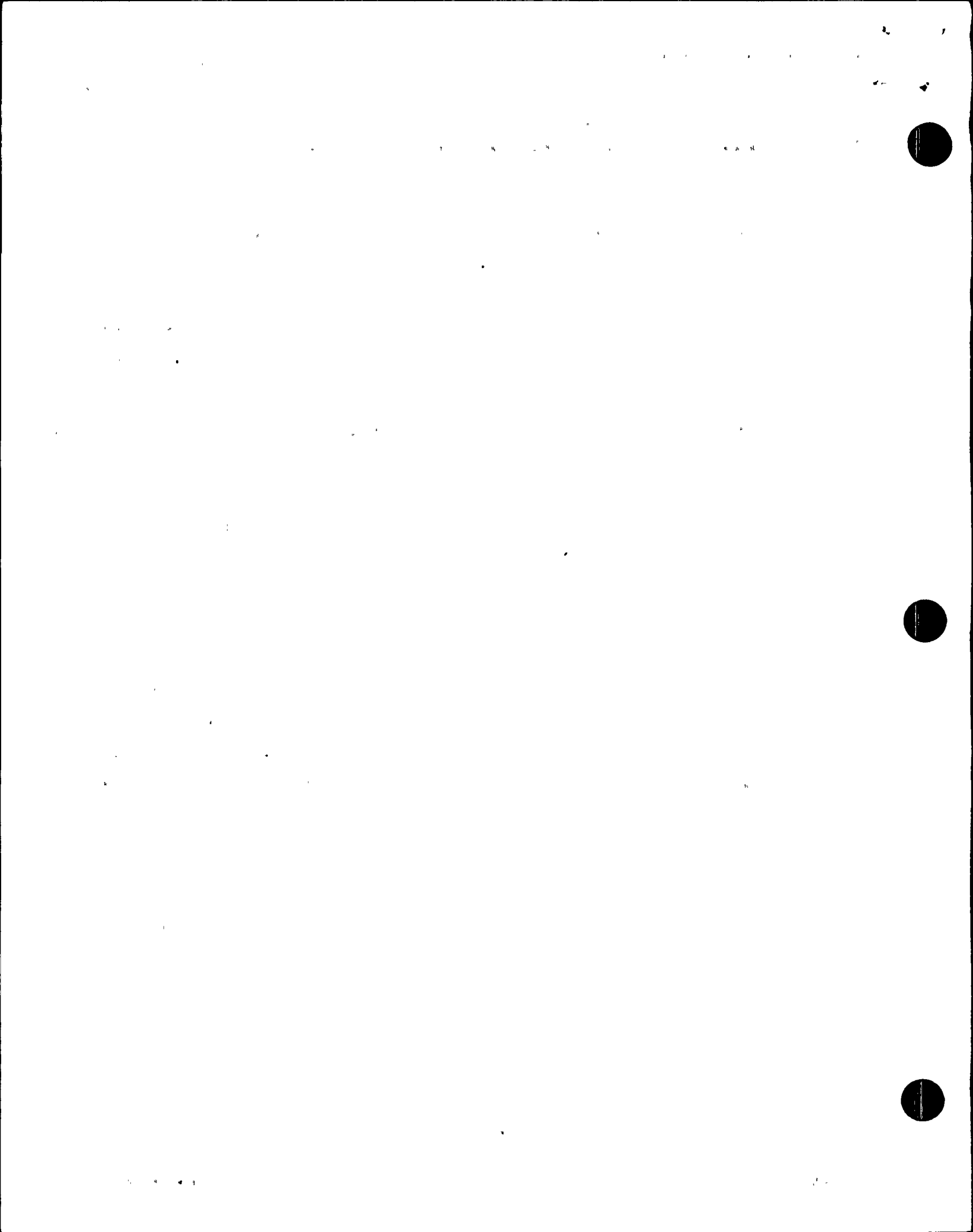
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2.2.3 Applicable provisions of the QA Program shall be implemented by the earliest of the following and shall remain in effect for the life of Supply System nuclear power plants:

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

2.2.4 Revisions to the QA Program will be made by the Quality organization as follows:

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





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2.2.5 Managers of Supply System organizations responsible for implementing the applicable provisions of the QA Program shall assure that activities that affect safety-related functions of plant items are performed by personnel who have been indoctrinated and trained. The scope, objective, and method of implementing the indoctrination and training program shall be documented. Proficiency of personnel performing activities that affect safety-related functions of plant items shall be maintained by retraining, re-examination, and/or recertifying, as applicable. Methods shall be provided for documenting training.

2.2.6 The scope, implementation, and effectiveness of the QA Program is routinely audited by the Quality organization. Copies of audit reports are presented to Supply System management to provide for assessment of the effectiveness of the QA Program. Additionally, at least once per two (2) years, the Supply System management arranges for an independent evaluation of the adequacy of the scope, implementation, and effectiveness of the QA Program. This is accomplished by knowledgeable personnel outside of the Quality organization to assure achievement of an objective program assessment. Results of these independent evaluations are reported to the Managing Director and Vice President, Nuclear Operations.

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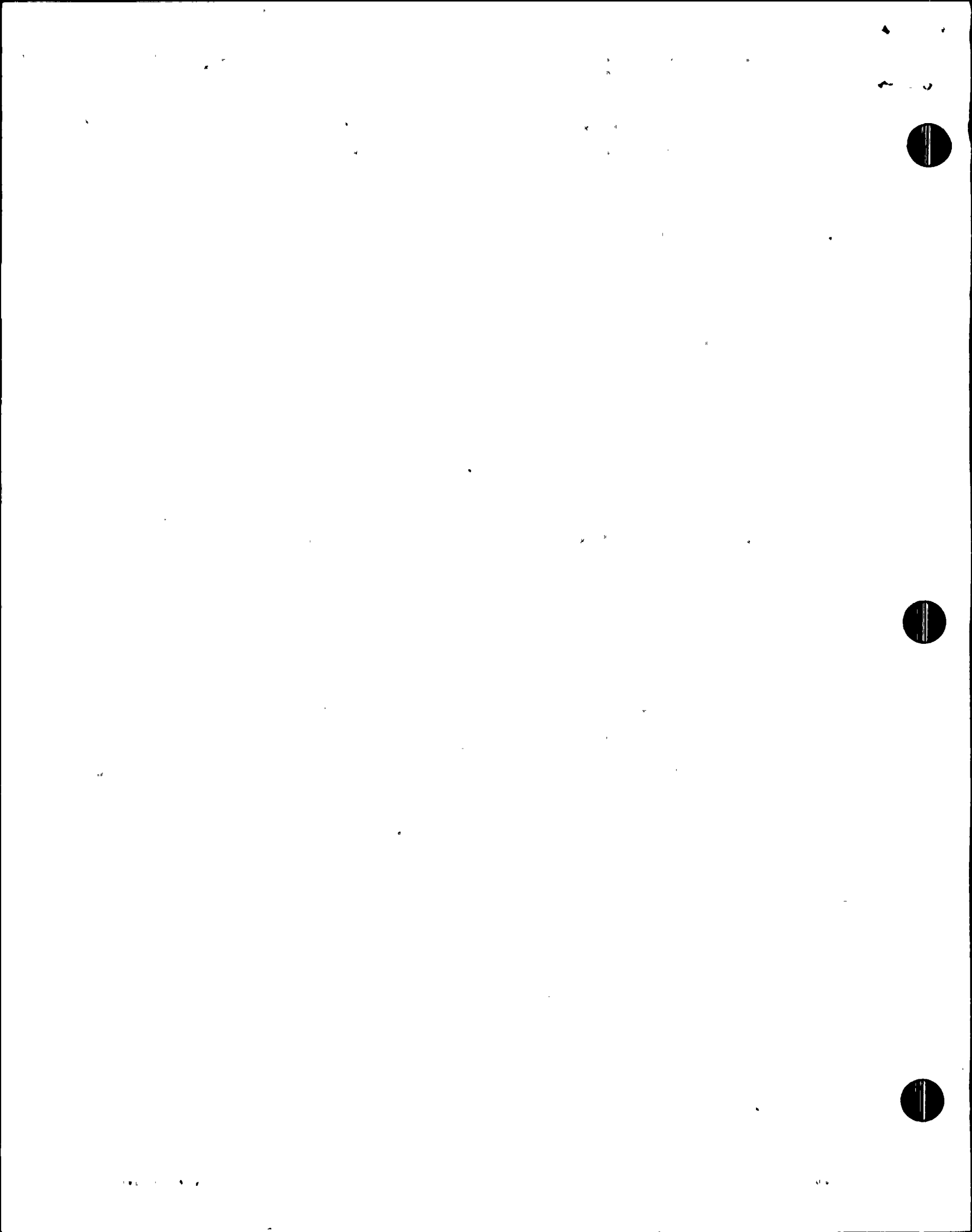
TABLE 2-1

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

Nuclear Operation Standards		10CFR50 Appendix B Criterion																	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Number	Title																		
NOS-1	Organizational Responsibilities/Changes	X																	
NOS-2	Control of the Functional Manual for Nuclear Operation	X				X	X												
NOS-3	Operational QA Program Description Control	X					X												
NOS-4	Plant Operations and Maintenance Control	X		X			X	X	X			X	X	X					
NOS-5	Personnel Training, Qualification and Certification	X	X							X									
NOS-6	Review Committees (CNSRB & POC)	X																	
NOS-8	Nuclear Safety Assurance Assessment Program	X																	
NOS-9	Procedures/Instructions Control	X		X		X	X												
NOS-11	Conduct of Licensing Activities	X					X												
NOS-13	Reporting of Incidents	X		X															
NOS-14	Operating Experience Review	X																	
NOS-19	Plant QC Inspection Program	X								X	X								
NOS-20	Quality Assurance Evaluations	X														X	X		X
NOS-21	ASME Pressure Boundary Work	X		X			X	X	X	X	X	X		X	X				
NOS-22	Q-List Control	X		X															
NOS-23	Plant Modification Control	X		X			X					X							
NOS-24	Control of Records	X																X	
NOS-26	Computer Software QA	X		X			X												
NOS-27	Procurement and Storage Control	X			X		X	X					X						
NOS-30	Control of Nonconformances and Corrective Action	X		X			X							X	X	X			
NOS-32	Configuration Management Program	X		X			X												
NOS-33	Inservice Inspections	X					X			X	X	X							
NOS-34	Inservice Testing of Pumps and Valves	X					X					X							
NOS-35	Nuclear Materials Control	X													X				
NOS-36	Chemistry	X													X				
NOS-37	Rad. Environmental Mon. Program	X													X				
NOS-39	Fire Protection Program	X													X				
NOS-41	QA Program for Radioactive Materials Shipping Packages	X																	
NOS-45	Simulator Certification	X	X	X			X				X				X				

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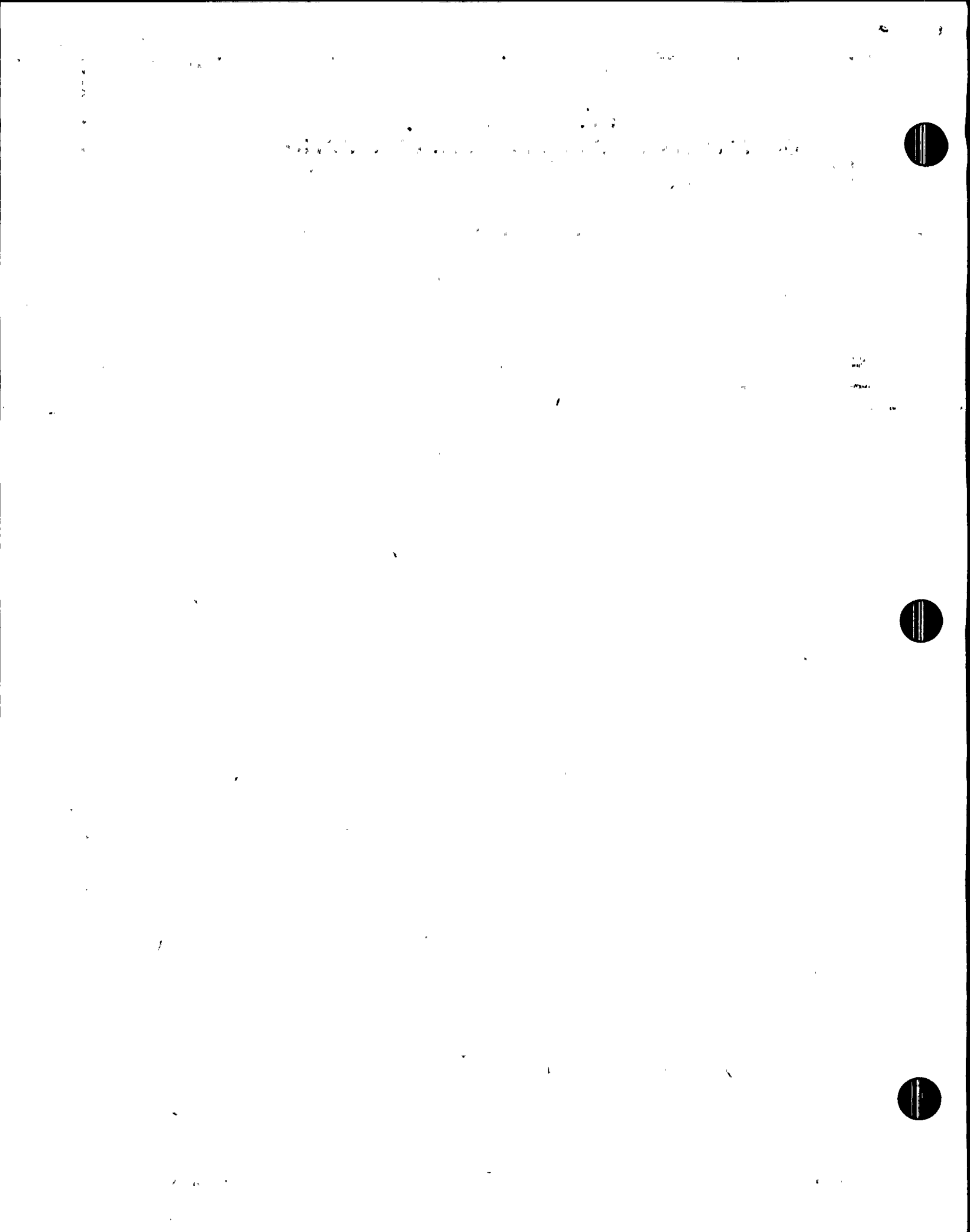


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This section sets forth requirements for preparation, review, and approval of procurement documents and changes thereto in order to control the quality of vendor furnished safety-related plant items and services.

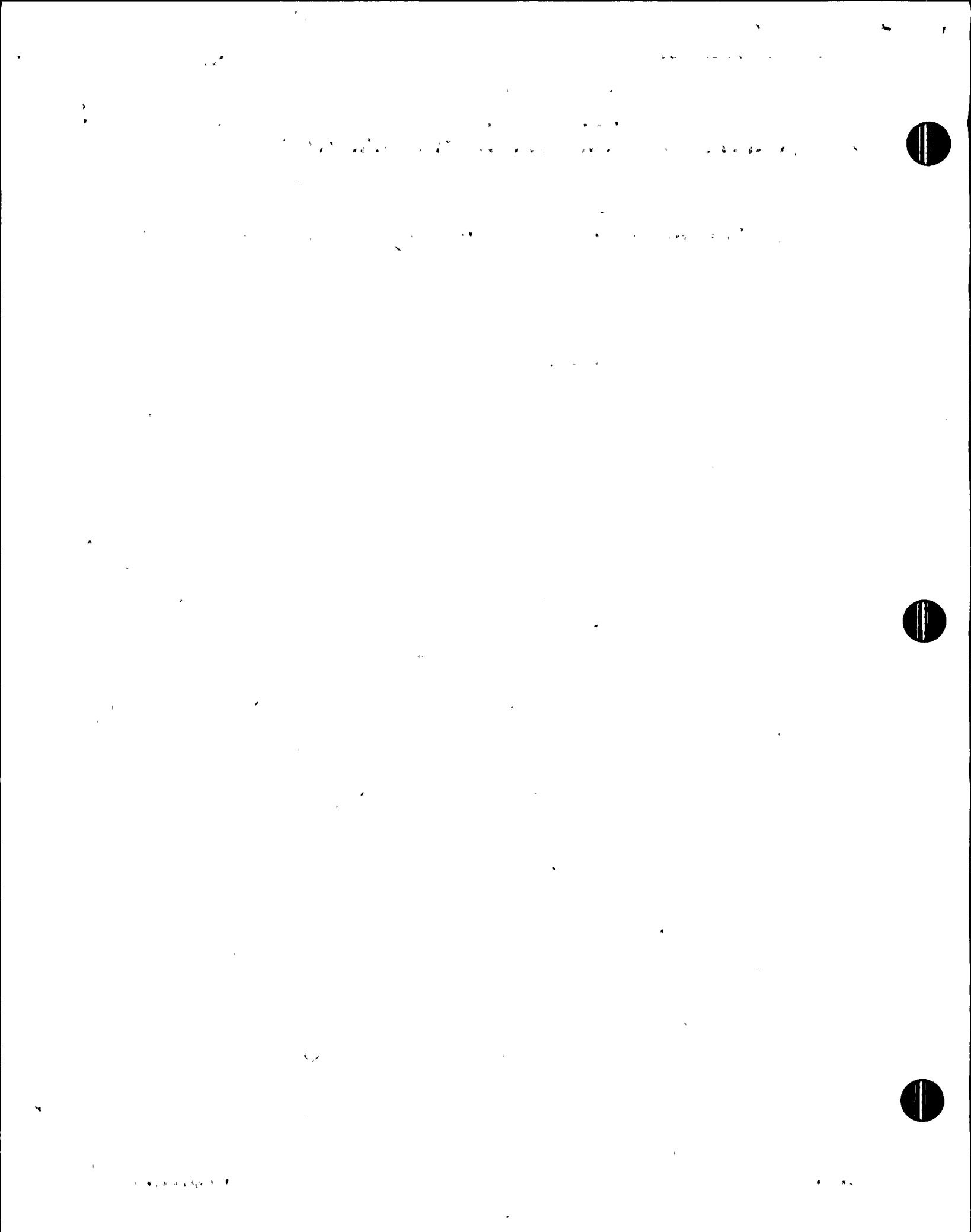
**4.2 GENERAL**

- 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.
- 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.



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- 4.2.6 Procurement documents shall be reviewed by Procurement and Quality 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.



**OPERATIONAL  
QUALITY ASSURANCE PROGRAM DESCRIPTION****7 - CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES****7.1 PURPOSE**

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

**7.2 GENERAL**

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

7.2.2 Material, equipment, services and spare/replacement parts (other than commercial grade items as defined in 10CFR 21) for safety-related structures, systems and components:

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

7.2.3 Material, equipment, services and spare/replacement parts for safety-related structures, systems and components that are commercial grade items as defined in 10CFR 21:

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

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- 7.2.4 Evaluation of vendors, including review and concurrence of vendors' QA programs, shall be performed by Procurement or Engineering personnel competent in determining the ability of vendors to provide acceptable quality products. Source selection will be based on one or more of the following:
- a. The ability of the vendor to comply with those elements of 10CFR 50 Appendix B applicable to the type of material, equipment, or services being procured.
  - b. A review of previous record and performance of vendors who have provided similar articles of the type being procured.
  - c. A survey of the vendor's facilities and QA program to determine his capability to supply a product which meets the design, manufacturing, and quality requirements.
- 7.2.5 Source verification (vendor surveillance, inspection and audit) shall be commensurate with the relative importance, complexity, and quantity of the items or service procured and the vendor's quality performance. In-process and final surveillance requirements of vendor products shall be determined in advance and performed to assure conformance with procurement document requirements. Source verification is not required to be performed where the quality of the item can be verified by review of test reports, inspection upon receipt, or other means. Source verification activities shall include evaluation of vendor furnished Certificates of Conformance and/or vendor's Certification System.
- 7.2.6 Receiving inspection of vendor furnished items shall be performed to assure that:
- a. The item is properly identified and corresponds to the identification on the procurement document and the receiving documentation.
  - b. The item and the acceptance records satisfy the inspection instruction prior to relying upon the item to perform its safety function.
  - c. Specified inspection, test, and other records are complete and available at the site prior to relying upon the item to perform its safety function.
  - d. Inspection status of accepted items is identified prior to their being released for storage, use or further work.
- 7.2.7 Documentary evidence that the vendor furnished items conform to the procurement requirements shall be retained at the site for the life of the items.



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**OPERATIONAL  
QUALITY ASSURANCE PROGRAM DESCRIPTION**9 - CONTROL OF SPECIAL PROCESSES9.1 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, nondestructive testing, and chemical cleaning. These procedures/instructions shall contain provisions for:

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

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



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

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

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

**10.2 GENERAL**

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

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

- a. Date inspection performed
- b. Description of inspection method
- c. Identification of characteristics and activities to be inspected.
- d. Acceptance or rejection criteria
- e. Identification of required procedures, drawings and specifications.
- f. Specifying necessary measuring and test equipment including accuracy requirements
- 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 Quality organization. However, personnel from the performing groups (Operations, Maintenance, Technical, Test and Startup, etc.) may be utilized for performing certain inspections associated with normal plant operation. When such is the case, the related work procedures shall require (a) demonstration of correct performance of the work through a functional test where the work involves breaching a pressure retaining boundary, and (b) review and concurrence by the Supply System Quality organization of qualification criteria of inspection personnel prior to initiation of inspection activity.
- 10.2.4 Individuals performing inspections shall be qualified and the status of their qualifications shall be maintained current.
- 10.2.5 Where mandatory inspection holdpoints are identified in pertinent documents, work shall not proceed beyond those holdpoints without the consent of the responsible inspection personnel or group.
- 10.2.6 Inspection results shall be documented, evaluated, and their status recorded.





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

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

**15.2 GENERAL**

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

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

15.2.3 Nonconformances shall be documented. This documentation shall:

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



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



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

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

**18.2 GENERAL**

18.2.1 A comprehensive system of planned and documented audits by the Quality organization, shall be carried out to verify compliance with applicable aspects of the QA Program. These audits shall consist of internal audits of Supply System's nuclear power plants and other Supply System organizations. External audits of Supply System vendors performing activities covered by the QA Program are performed by other Supply System organizations. The results of these audits are subject to review and assessment by the Quality organization.

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

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

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





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18.2.5 Audit results shall be documented by auditing personnel and reviewed by management having responsibility in the area audited.

18.2.6 Follow-up action on deficiencies shall be accomplished.





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APPENDIX I

QUALIFICATION REQUIREMENTS

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

**I.1 Director, Quality**

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

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

**I.2 Quality Services and Quality Programs Managers**

- a. Education: Bachelor Degree or equivalent\* in Engineering or a related science.
- b. Experience: Four (4) years experience in the field of quality assurance, or equivalent number of years of nuclear plant experience in a supervisory position, preferably at an operating nuclear plant, or a combination of the two. At least one (1) of these four (4) years of experience shall be nuclear power plant experience in the implementation of the quality assurance program.

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



**OPERATIONAL  
QUALITY ASSURANCE PROGRAM DESCRIPTION****I.3 Plant Quality Control Manager**

- a. Education: Bachelor Degree or equivalent\* in Engineering or related science.
- b. Experience: Four (4) year experience in the field of quality assurance and/or quality control, or an equivalent number of years of nuclear plant experience in a supervisory position, preferably at an operating nuclear plant, or a combination of the two. At least one (1) year of this four (4) years experience shall be in the implementation of the quality assurance/control program.

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

1. High school diploma or GED.
2. Sixty (60) semester hours of related technical education taught at the college level (900 classroom or instructor conducted hours).
3. Qualified as an NRC senior operator at the assigned plant.
4. Four (4) years of additional experience in his area of responsibility.
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.

