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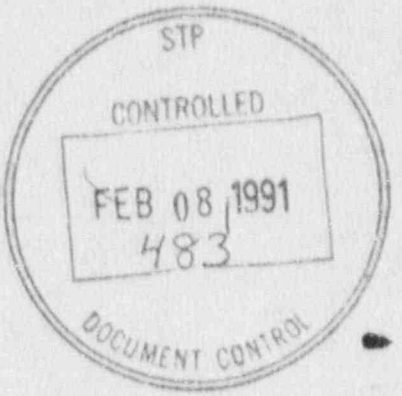

OPERATIONS QUALITY ASSURANCE PLAN

South Texas Project Electric Generating Station

STP 724 (02/90)

1641

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	EFFECTIVE DATE 12/21/90	

Approved by: _____ Date: 12/19/90
D. P. Hall
Group Vice President, Nuclear

Approved by: _____ Date: 12/18/90
T. C. Jordan
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PORC Meeting No.: 90-048 Date: 8-21-90

Chapters Requiring NRC Approval

Chapters Not Requiring NRC Approval

Chapter Number	Title of Chapter	Effective Revision No.	Effective Date
16.0	Nuclear Fuel Management	4	12-21-90
17.0	ASME Code Section XI - Repairs and Replacements	4	12-21-90
18.0	ASME Code Section XI - Inservice Inspection and Testing	4	12-21-90

This chapter is provided to define terminology used in chapters of the OQAP. They are derived from standard definitions where possible. Program procedures and documents which implement the OQAP may provide variations of these definitions providing the intent of the OQAP definition and requirements are satisfied.

DEFINITIONS

Abnormal Condition - Any of the following:

a. Exceeding a limiting condition for a power plant operation established in the applicable technical specifications.

b. Observed inadequacies in the implementation of administrative or procedural controls such that the adequacy causes or threatens to cause the existence or development of an unsafe condition in connection with the operation of a nuclear power plant.

c. Conditions arising from natural or off-site man-made events that affect or threaten to affect the safe operation of a power plant.

Administrative controls - Rules, orders, instructions, procedures, policies, and designations of authority and responsibility written by management to obtain assurance of safety and high-quality operation.

Approval - An act of endorsing or adding positive authorization or both.

Approved Vendors List - A listing of vendors who have been evaluated to specific criteria and have been found to be qualified to provide specific items and/or services.

As-Built Data - Documented data that describe the condition actually achieved in a product.

Audit - A documented activity performed in accordance with written procedures or checklists to verify, by examination and evaluation of objective evidence, that applicable elements of the quality assurance program have been developed, documented, and effectively implemented in accordance with specified requirements. An audit does not include surveillance or inspection for the purpose of process control or product acceptance. (ANSI N45.2.12)

Authorized Nuclear Inspector (ANI) - Inspectors performing inspections required by Section III of the ASME Code who have been qualified by written examination under the rules of any state of the United States or province of Canada which has adopted the Code. The inspector shall be an employee of an authorized inspection agency and shall not be an employee of the Certificate of Authorization holder. The ANI shall meet the requirements of ANSI N626.

Authorized Nuclear Inservice Inspector (ANII) - Inspectors performing inspections required by Section XI of the ASME code. The ANII is a representative of an authorized inspection agency or a state or municipality of the United States, Canadian Province, or other enforcement authority having jurisdiction over the Nuclear Power components at the plant site.

Calibration - The process by which standards or working equipment are checked against standards of known higher accuracy and adjusted as necessary to ensure their compliance with designated specifications.

Certification - The action of determining, verifying, and attesting in writing to the qualifications of personnel or material.

Cleanness - A state of being clean in accordance with predetermined standards, and usually implies freedom from dirt, scale, heavy rust, oil, or other contaminating impurities.

Commercial Grade Item - A commercial grade item (as defined in 10CFR21) is one which:

a. Is not subject to design or specification requirements that are unique to the nuclear power industry; and

b. Is used in applications other than in the nuclear power industry; and

c. Is to be procured from a manufacturer or supplier on the basis of specifications set forth in the manufacturer's published product description (i.e., catalog).

Component - A piece of equipment such as a vessel, piping, pump, valve, or core support structure, which will be combined with other components to form an assembly.

Contaminants - Foreign materials such as mill scale, dirt, oil, chemicals, and any matter that renders a fluid, solid, or surface impure and unclean according to present standards of acceptable cleanness.

Contractor - Any organization under contract for furnishing equipment, material, or services. It includes the terms vendor, supplier, subcontractor, fabricator, and subtier levels of these, where appropriate. Prime contractor is used to indicate either the architect engineer, NSSS supplier, constructor, or nuclear fuel supplier.

Corrective Action - Any appropriate measure applied for the purpose of making less likely the recurrence of the initial deficiency. Examples are:

a. Revision of procedures, practices, and/or design documents.

b. Increased surveillance of procedures and practices.

c. Work stoppage until problem situation is alleviated.

d. Special training of personnel.

e. Reassignment of personnel.

Corrective Maintenance - Repair and restoration of equipment or components that have failed or are malfunctioning and are not performing their intended function.

Critical Characteristics - Identifiable and measurable attributes/variables of a commercial grade item, which once selected to be verified, provide reasonable assurance that the item received is the item specified.

Dedication - The point in time after which a commercial grade item is accepted for a safety-related application and deficiency reporting becomes the responsibility of the party performing the acceptance.

Deficiency - The characteristic of an item or document that makes it nonconforming with the original criteria and is reported as audit findings, supplier deficiencies, event reports, significant defects, nonconformance reports, corrective action reports, or other procedurally controlled mechanisms.

Design - Technical and management processes which commence with identification of design input and which lead to and include the issuance of design output documents.

Design Control - Design control is the process used to verify that the design drawings, design calculations and specifications, including fabrication and inspection procedures for both shop and field, meet the project requirements.

Design Input - Those criteria, parameters, bases, or other design requirements upon which a detailed final design is based.

Design Output - Documents such as drawings, specifications, and other documents defining technical requirements of structures, systems, and components.

Document Review - The process of appraisal of documentation to determine the adequacy of the document with respect to quality/technical requirements.

Drawing - A document which depicts the geometric configuration of an item, or the function of an item.

Equivalency Evaluation - A technical evaluation performed to confirm that an alternative item, not identical to the original item, will satisfactorily perform its intended function once in service. This term is synonymous with "Equal-to-or-Better-Than Evaluation".

Examination - An element of inspection consisting of investigation of materials, components, supplies, or services, to determine conformance to those specified requirements which can be determined by such investigation. Examination is usually nondestructive and includes simple physical manipulation, gaging, and measurement.

Handling - An act of physically moving items by hand or mechanical means, but not including transport modes.

Hold Point - A preselected step in any procedure or work process that identifies a portion or portions of the procedure or work process which requires QA/QC inspection due to the complexity, safety considerations, and/or inaccessibility of the activity and beyond which work may not progress until the required inspection is performed.

In-Service Inspection - The inspection performed generally during a reactor refueling outage or plant shutdown which assures that the nuclear equipment, vessels, and materials are of sufficient integrity to provide protection of public health and safety.

Inspection - A phase of quality control by which means of examination, observation, or measurement determines the conformance of materials, supplies, components, parts, appurtenances, systems, processes, or structures to predetermined quality requirements.

Item - Any level of unit assembly, including structures, system, subsystem, subassembly, component, part, or material.

Material - A substance or combination of substances forming components, parts, pieces, and equipment items. (Intended to include such as machinery, castings, liquids, formed steel shapes, aggregates, and cement.)

Nonconformance - A deficiency in characteristic, documentation, or procedure which renders the quality of an item unacceptable or indeterminate. Examples of nonconformance include: physical defects, test failures, incorrect or inadequate documentation, or deviation from prescribed processing, inspection, or test procedures.

Notification Point - A preselected step established by Quality Control in any procedure or work process which identifies a discretionary inspection point which may be waived based on the availability of Quality Control personnel and other activities of a more critical nature.

Nuclear Fuel - Uranium ore, converted uranium, enriched uranium, fabricated fuel, pins and assemblies.

Package - A wrapping or container including its contents of material or equipment.

Part - An item which has work performed on it and which is attached to and becomes part of a component before completion of the component.

Plant Modification - A planned physical change to a plant structure, system or component as described in design documents.

Preventive Maintenance - Preventive, periodic and planned maintenance actions taken to maintain a piece of equipment within design operating conditions and extend its life and is performed prior to equipment failure. This includes technical specification surveillances, inservice inspections and other regulatory forms of preventive maintenance.

Procedure - A document that specifies or describes how an activity is to be performed. It may include methods to be employed, equipment, or materials to be used and sequence of operations.

Procurement - Interdisciplinary function by which equipment, materials, or services are acquired.

Procurement Documents - Purchase requisitions, purchase orders, drawings, contracts, specifications or instructions used to define requirements for purchase. (ANSI N45.2.13)

Proposal - A document which describes the equipment, material, or services which the vendor proposes to furnish. The proposal should include commercial information and a statement of any exceptions to the provisions of the inquiry.

Purchase Order (or Contract) - A document authorizing a vendor to provide equipment, material or services in accordance with the terms and conditions established in the purchase order or contract.

Qualification (Personnel) - The characteristics or abilities gained through training or experience or both that enable an individual to perform a required function.

Qualified Procedure - A procedure which incorporates all applicable codes and standards, manufacturer's parameters, and engineering specifications and has been proven adequate for its intended purpose.

Quality Assurance - All those planned or systematic actions necessary to provide adequate confidence that an item or facility will perform satisfactorily in service.

Quality Control - Those quality assurance actions which provide a means to control and measure the characteristics of an item, process, or facility to established requirements.

Quality-Related - Those activities or items required to be included in the Operations QA program by the UFSAR, Federal Codes, other regulatory licensing requirements or management directive. The term quality-related encompasses safety related activities or items.

Quality-Related Item - A structure, system, or component identified in UFSAR Section 3.2 as requiring quality assurance during the operations phase of STPEGS.

Receiving - Taking delivery of an item at a designated location.

Records - Those records, physical or electronic media, which furnish documentary evidence of the quality of items and of activities affecting quality. A document is considered a quality assurance record when the document has been completed.

Reference Standard - Standards (that is, primary, secondary and working standards, where appropriate) used in a calibration program. These standards establish the basic accuracy limits for that program.

Repair - The process of restoring a nonconforming characteristic to a condition such that the capability of an item to function reliably and safety is unimpaired even though the item still may not conform to the original statement.

Replacements - Spare and renewal components, appurtenances and subassemblies or parts of a component or system. Replacements also include the addition of components but do not include the addition of complete systems.

Rework - The process by which a nonconforming item is made to conform to a prior specified requirement by completion, remachining, reassembling, or other corrective means.

Safety-Related - Those plant features necessary to assure the integrity of the reactor coolant pressure boundary, the capability to shut down the reactor and maintain it in a safely shutdown condition, or the capability to prevent or mitigate the consequences of accidents which could result in off-site exposures comparable to the guideline exposure of NRC Regulations 10CFR100.

Special Process - A process, the results of which are highly dependent on the control of the process or the skill of the operators, or both, and in which the specified quality cannot be readily determined by inspection or test of the product.

Specification - A concise statement of a set of requirements to be satisfied by a product, material, or process indicating, whenever appropriate, the procedure by means of which it may be determined whether the requirements given are satisfied. (Specifications may also be used to describe technical services to be provided.)

Standard - The result of a particular standardization effort approved by a recognized authority.

Stop Work - The suspension of an activity.

Storage - The act of holding items at the construction site or in an area other than its permanent location in the plant.

Surveillance - The act of observing real time activities and/or reviewing documentation to verify conformance with specified requirements and industry good practices, and to evaluate their adequacy and effectiveness.

Surveillance Testing - Periodic testing to verify that safety-related structures, systems, and components continue to function or are in a state of readiness to perform their function.

Survey - An activity performed in a vendor's facility to determine the adequacy and implementation of a vendor's quality assurance program. This activity is normally done prior to award of a purchase order.

System - A group of subsystems united by some interaction or interdependence, performing duties but functioning as a single unit.

Testing - The determination or verification of the capability of an item to meet specified requirements by subjecting the item to a set of physical, chemical, environmental, or operating conditions.

Use-as-is - A disposition which may be imposed for a nonconformance when it can be established that the discrepancy will result in no adverse conditions and that the item under consideration will continue to meet all engineering functional requirements including performance, maintainability, fit, and safety.

Verification - An act of confirming, substantiating, and assuring that an activity or condition has been implemented in conformance with the specified requirements.

HL&P 8689(12-85)

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INDEX	EFFECTIVE DATE 07-17-89	

Procedure Number	Title of Procedure	Revision Number	Effective Date	Outstanding ICNs
VOLUME 1		~~STI 80~~ NR 5.9.90		
SECTION 1.0	GENERAL			
QAP-1.1	Organization and Responsibilities (G)	1	05-25-88	--------
QAP-1.2	Procedure Development (G)	2	04-12-89	--------
QAP-1.3	Records Control (G)	1	05-25-88	--------
QAP-1.4	Indoctrination and Training of Personnel (G)	1	05-25-88	--------
QAP-1.5	Deficiency Reporting (G)	3	04-12-89	--------
QAP-1.6	Procurement of Items and Services (G)	1	05-25-88	--------
SECTION 2.0	QA ACTIVITIES			
QAP-2.1	Training, Qualification and Certification of Audit Personnel (A/A)	1	09-28-88	--------
QAP-2.2	Training, Qualification and Certification of Surveillance Personnel (I/S)	1	05-25-88	--------
QAP-2.3	Operational QA Trend Analysis (QE)	3	06-30-89	--------
QAP-2.4	QA Evaluation of Vendors (QE)	2	04-12-89	--------
QAP-2.5	Document Review (QE)	1	05-25-88	--------
QAP-2.6	Procurement Document Review (QE)	1	05-25-88	--------
QAP-2.7	Vendor Audits (A/A)			DELETED

1.0 PURPOSE

1.1 The purpose of this chapter is to describe the organizational structure as related to quality assurance and to establish the responsibilities of organizations for the South Texas Project Electric Generating Station (STPEGS).

2.0 SCOPE

2.1 Houston Lighting & Power Company (HL&P), as licensee and Project Manager for itself and the other owners, has the Quality Assurance (QA) responsibility for design, engineering, procurement, fabrication, modification, maintenance, repair, inservice inspection, refueling, testing, and operation of the South Texas Project Electric Generating Station (STPEGS).

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 None

5.0 RESPONSIBILITIES

5.1 The Nuclear Group is comprised of Nuclear Generation, Nuclear Engineering, Nuclear Support, Planning/Assessment, Human Resources-Nuclear, Nuclear Licensing, and Nuclear Assurance. The heads of these groups report to the Group Vice President, Nuclear.

5.1.1 The Group Vice President, Nuclear, has overall responsibility for the implementation of the Operations Quality Assurance Program and approving the Operations Quality Assurance Plan (OQAP) and revisions thereto. He is also responsible for engineering, modification, and operations activities of STPEGS.

5.1.2 The Vice President, Nuclear Generation, is responsible for staffing STPEGS with qualified personnel and acquiring and coordinating the assistance of internal and external

organizations for the testing, startup, operation, modification, maintenance, and security of STPEGS.

5.1.2.1 The Plant Manager, STPEGS, has prime responsibility for the safe operation of the STPEGS. The plant staff, under the direction of the Plant Manager, STPEGS, develops detailed procedures and instructions for testing, operation, modification, maintenance, and radiological monitoring of the STPEGS.

The Plant Manager, STPEGS, reports to the Vice President, Nuclear Generation.

5.1.2.2 The Manager, Nuclear Security, is responsible for the development and coordination of the security program, including practices and procedures; providing security services; establishment and maintenance of physical security; and for administration of the Site Access Authorization Program.

The Manager, Nuclear Security, reports to the Vice President, Nuclear Generation.

5.1.2.3 The Manager, Nuclear Training, is responsible for developing and implementing formal training programs and curricula to support the training and certification of STPEGS personnel.

The Manager, Nuclear Training, reports to the Vice President, Nuclear Generation.

5.1.3 The Vice President, Nuclear Engineering, is responsible for design engineering, plant engineering, purchasing, material control, and design reviews for STPEGS. In addition, the Vice President, Nuclear Engineering, is responsible for nuclear fuel design, fuel

acquisition, fuel management and provision for procurement and storage of equipment, material, and services for STPEGS.

5.1.3.1 The Manager, Nuclear Purchasing and Materials Management, is responsible for the procurement of equipment, material, and services, including the coordination of procurement document review; receipt, handling, storage of equipment and materials; and maintaining the Approved Vendors List (AVL).

The Manager, Nuclear Purchasing and Materials Management, reports to the Vice President, Nuclear Engineering, for project direction and is matrixed to the HL&P Corporate Organization for administrative direction.

5.1.3.2 The Manager, Plant Engineering, is responsible for providing technical support for day to day activities of plant operations and for the development, implementation, and administration of the plant testing program.

The Manager, Plant Engineering, reports to the Vice President, Nuclear Engineering.

5.1.3.3 The Manager, Design Engineering is responsible for establishment and maintenance of the plant design bases and plant configuration. Design Engineering issues plant modifications, resolves plant nonconformances, approves special process procedures and supports the ASME XI Inservice Inspection Program.

The Manager, Design Engineering, reports to the Vice President, Nuclear Engineering.

5.1.4 The Vice President, Nuclear Support, is responsible for assuring that activities associated with the distribution of documents, the records management system, plant communications, and the administrative computer systems are in compliance with the OQAP.

5.1.4.1 The General Manager, Information Resources, is responsible for providing a records management system including processing, storage, preservation, and retrievability.

The General Manager, Information Resources, reports to the Vice President, Nuclear Support.

5.1.5 The General Manager, Nuclear Assurance, is responsible for the development, implementation, and maintenance of the STPEGS QA Program, making periodic reports on its effectiveness, review of selected documents which control activities within its scope, and preparation, control, and approval of the OQAP and revisions thereto. The General Manager, Nuclear Assurance, has the authority to identify, initiate, recommend, or provide solutions to quality-related problems and verify the implementation and effectiveness of the solutions. This position has the independence to conduct QA/Quality Control (QC) activities without undue pressure of cost or schedule. The General Manager, Nuclear Assurance, has the authority to stop work for cause in engineering, design, procurement, fabrication, modification, testing, and operations phases of the nuclear plant. This authority in QA matters has been granted by the Group Vice President, Nuclear. The QA organization's responsibilities during operation are shown in Attachment II. The QA organization, including the inspection staff, is based upon the anticipated QA/QC involvement in operation, modification, and maintenance activities and by a survey of site QA staffs of other utilities with nuclear power plants in operation.

The position of General Manager, Nuclear Assurance, is on the same or higher organizational level as the highest line manager responsible for performing activities affecting quality as shown in Attachment I.

5.1.6 The Manager, Nuclear Licensing, is responsible for development of plans and procedures which implement the Emergency Plan, the conduct of drills and exercises which test the effectiveness of the Emergency Plan, and for providing technical direction to ensure that STP Licensing activities are consistent with HL&P Licensing policy.

5.1.6.1 The Executive Director NSRB is responsible for the management of the Nuclear Safety Review Board which conducts independent reviews and audits of significant activities as delineated by technical specifications.

The Executive Director NSRB reports to the Manager, Licensing.

5.1.7 The Manager, Human Resources-Nuclear, is responsible for supporting the Site Access Authorization Program in the screening of HL&P employees.

The Manager, Human Resources-Nuclear, reports to the Group Vice President, Nuclear, for project direction and is matrixed to the HL&P Corporate Organization for technical direction.

6.0 REQUIREMENTS

6.1 South Texas Project Electric Generating Station Organization

6.1.1 Attachment I depicts the organizational structure of the STPEGS as it relates to the implementation of the Operations Quality Assurance Plan. The structure reflects the reporting alignment for key positions.

7.0 DOCUMENTATION

7.1 None

8.0 ATTACHMENTS

8.1 Attachment I - Nuclear Group - QA Functions

8.2 Attachment II - Nuclear Assurance Responsibilities

ATTACHMENT I

HOUSTON LIGHTING & POWER COMPANY

NUCLEAR GROUP - QA FUNCTIONS

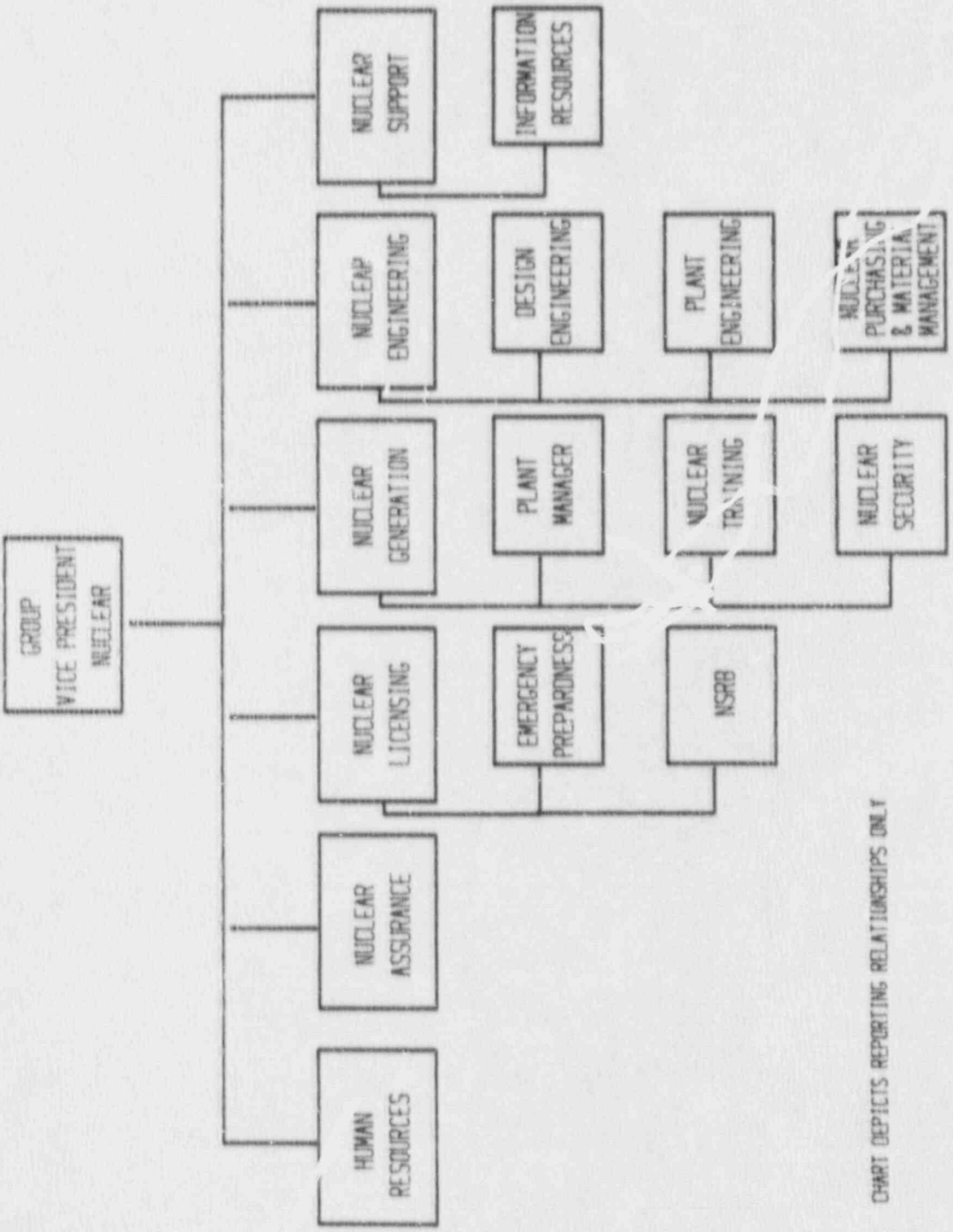
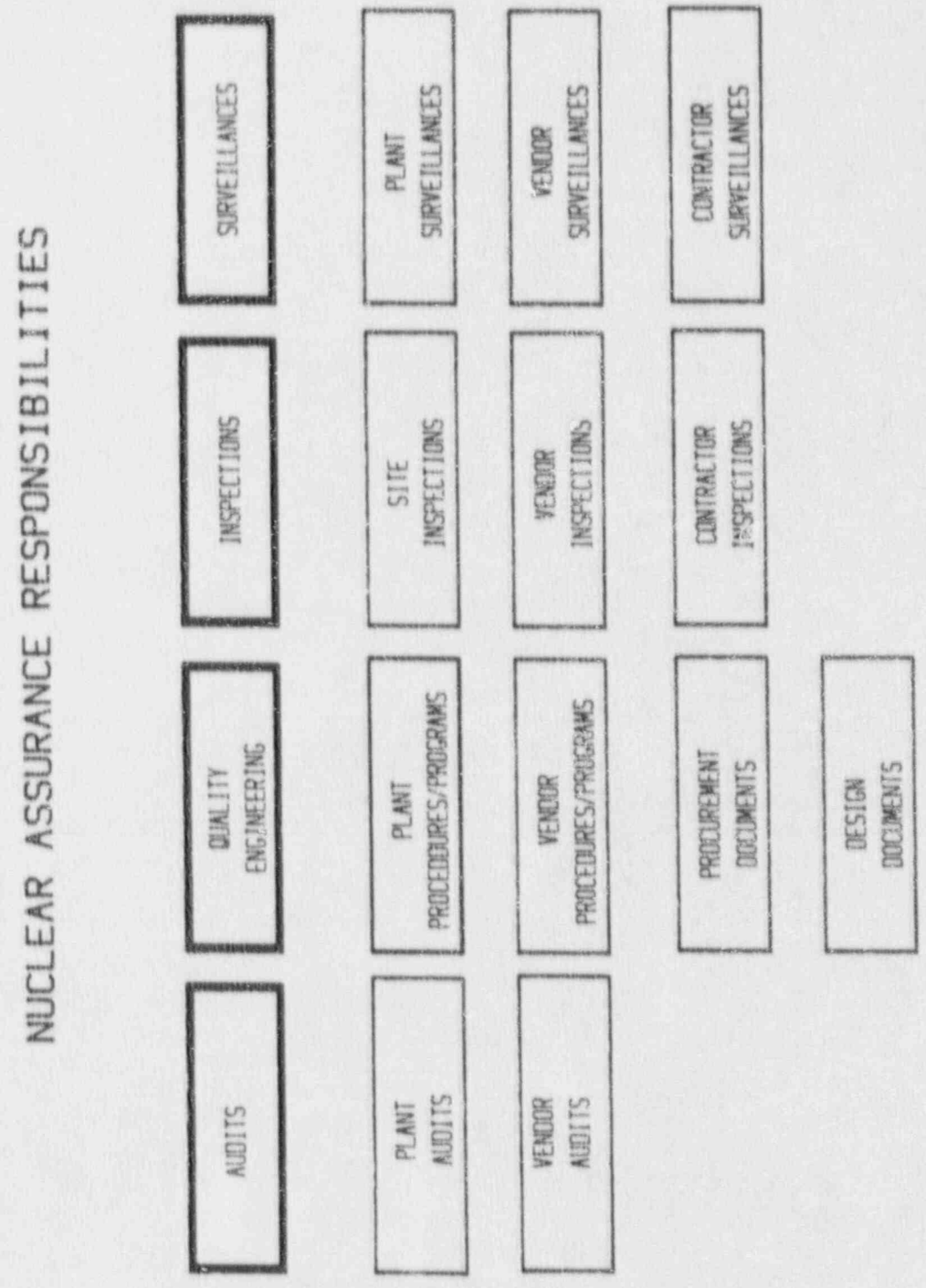


CHART DEPICTS REPORTING RELATIONSHIPS ONLY

ATTACHMENT II



1.0 PURPOSE

1.1 The purpose of this chapter is to define criteria and establish administrative controls for implementation of the Operations Quality Assurance Program for the South Texas Project Electric Generating Station (STPEGS).

2.0 SCOPE

2.1 The Operations Quality Assurance Program is applicable to safety-related material, equipment, services and activities described in 10CFR50, Appendix B; 10CFR71, Subpart H; ASME Boiler and Pressure Vessel Code, Sections III and XI; and quality related areas as defined by STPEGS management in this Operations Quality Assurance Plan (OQAP) or other program documents or procedures. Quality-related areas include the Fire Protection Program, Emergency Plan, Radiological Environmental Monitoring Program, Radwaste Management Program, Computer Program Verification and Control, Physical Security Program, Seismic and Environmental Equipment Qualification Programs, and Radiation Protection Program.

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 10CFR50, Appendix B

4.2 10CFR71, Subpart H

4.3 ASME B&PV Code

4.4 OQAP Chapter 14.0, Records Control

5.0 REQUIREMENTS

5.1 The Operations Quality Assurance Program consists of various documents which identify and provide the mechanism for verifying implementation of commitments, requirements, and actions necessary to attain quality assurance objectives.

5.2 The OQAP is prepared to implement the STPEGS Operations Quality Assurance Program.

5.2.1 The OQAP provides policies to be implemented for the STPEGS. The OQAP also assigns responsibilities necessary for the attainment of quality assurance objectives and the verification of conformance to established requirements.

5.2.2 Attachment I provides a matrix of 10CFR50, Appendix B criteria to the OQAP chapters.

5.3 Establishing Policies and Goals

5.3.1 QA policies and goals for STPEGS are defined in the OQAP. The Group Vice President, Nuclear has overall responsibility for quality assurance.

5.3.2 The General Manager, Nuclear Assurance, is responsible for the development of the Quality Assurance (QA) Program. The minimum requirements established for this position are:

5.3.2.1 A bachelors degree in science or engineering, or an equivalent combination of education and experience.

5.3.2.2 Five years experience in the management of quality assurance. Fifteen years experience in industry quality assurance standards, and federal and state regulatory requirements.

5.3.2.3 Familiarity with nuclear power generation facilities and the related operations.

5.3.2.4 Knowledge of the industry's quality assurance standards and regulatory requirements.

5.3.2.5 Management experience and familiarity with HL&P corporate organizations.

5.3.3 Procedures and revisions which control quality-related work programs and activities, performed by STPEGS organizations described in Chapter 1.0 are reviewed by QA as defined in this chapter.

5.4 Organizational Independence

5.4.1 The reporting arrangement utilized by the NA Department ensures that those personnel charged with responsibility for verifying compliance with QA Program requirements have the organizational freedom to:

5.4.1.1 Identify quality problems.

5.4.1.2 Initiate, recommend, or provide solutions.

5.4.1.3 Verify implementation of solutions.

5.4.2 The reporting arrangement, as illustrated on Attachment I, of Chapter 1.0, is such that personnel responsible for verifying compliance with quality requirements do not have direct responsibility for the performance of that work.

5.4.3 The General Manager, NA, provides technical and administrative direction to the QA Managers in the areas of audits, surveillances, quality engineering, inspection, and material testing.

5.5 QA Program

5.5.1 HL&P has established the Operations QA Program for the operations phase of the STPEGS, which includes testing, operation, maintenance, refueling, inservice inspection, and modification. The HL&P Nuclear QA Program for the operations phase requires that HL&P, its contractors, subcontractors, and vendors comply with the criteria established by 10CFR Part 50, Section 50.55a; 10CFR Part 50, Appendix A, General Design Criterion (GDC) 1; 10CFR Part 50, Appendix B, and 10CFR Part 71 Sub-Part H. It is the intent of HL&P to comply, as defined

herein, with the applicable American National Standards Institute (ANSI) N45.2 daughter standards, ANSI N18.7, and implementing Regulatory Guides (RGs) as defined herein and in Updated Final Safety Analysis Report (UFSAR) Table 3.12-1.

5.6 Delegation of QA Functions

5.6.1 During normal operations the QA Program will be executed by STPEGS personnel, who may be assisted by subcontract personnel. During refueling, maintenance, and inservice inspection, first-level quality control inspection and nondestructive examination (NDE) activities may be subcontracted. However, STPEGS will retain responsibility for the total QA Program, and STPEGS NA personnel will perform audits and surveillance(s) of subcontracted QA activities.

5.6.2 When first-level quality control inspection and NDE are performed by STPEGS personnel, they are qualified and certified in accordance with applicable codes, standards, procedures, and other regulations. Monitoring and surveillance of the quality control and NDE activities shall be performed by Operations QA personnel.

5.7 Identification of Safety-Related Items and Services

5.7.1 The STPEGS QA Program described herein is applied to all activities affecting the safety-related functions of those structures, systems, and components which prevent, or mitigate the consequences of postulated accidents that could cause undue risk to the health and safety of the public. The safety-related structures, systems, and components controlled by the QA Program are listed in UFSAR Section 3.2, along with their associated fire protection systems. UFSAR Section 3.2 also identifies those quality-related structures, systems, and components (in addition to fire protection systems) which are not safety-related but to which the STPEGS Operations QA Program is applied.

5.7.2 The fire protection QA Program is part of the overall STPEGS Operations QA Program and is therefore under the management control of QA. Fire protection QA Program criteria are being implemented as part of the HL&P Operations QA Program, as defined in this OQAP.

5.7.3 Expendable or consumable items necessary for the functional performance of safety-related structures, systems, and components are subjected to quality assurance requirements as specified in written procedures. These procedures include provisions for review and control in accordance with industry standards and specifications and the safety-related function of the expendable or consumable item.

5.8 Development of the QA Program

5.8.1 The Operations QA Program was fully implemented 90 days prior to initial fuel loading. The QA Program shall be in effect throughout the operating life of the STPEGS.

5.9 QA Program Documents

5.9.1 The QA Program shall be implemented with documented instructions, procedures, and drawings which include appropriate quantitative and qualitative acceptance criteria for determining that prescribed activities have been satisfactorily accomplished. Procedures shall include the control of the sequence of required inspections, tests, and other operations when important to quality. To change these controls, the individual procedure must be changed and shall require the same review and approval given to the original procedure. Such instructions, procedures, and drawings are reviewed and approved for compliance with requirements appropriate to their safety classification by individuals qualified to do so.

5.9.2 Attachment II lists typical procedures developed to implement the QA Program. Provisions for deletions, additions and minor program changes do not permit including a complete listing of procedures.

5.9.3 Interdepartmental Procedures

5.9.3.1 Interdepartmental procedures shall be established to implement and control activities covered by the OQAP when more than one department or organization is involved. These procedures provide for integration of responsibilities and activities, and help to ensure continuity of activity between departments/organizations.

5.9.3.2 Specific departments/organizations shall be designated for the preparation and approval of each procedure. Since these procedures contain requirements for more than one department/organization, a designated procedure coordinator is responsible for initiating review with affected departments/organizations and resolution of comments.

5.9.3.3 Selected interdepartmental procedures and revisions are reviewed by Nuclear Assurance before their issuance. The review attests that these procedures have been reviewed for compliance with the Operations Quality Assurance Program. The review is documented and the comments on the current procedure revision will be maintained for verification.

5.9.4 Departmental Procedures

5.9.4.1 Departmental procedures shall be established to implement the OQAP, interdepartmental procedures, and other operating, licensing and code requirements. These departmental

procedures detail specific methods for implementation.

5.9.4.2 Departmental procedures shall be approved by the management of the issuing department. The approval assures awareness of content and concurrence with the identified responsibilities.

5.9.4.3 Selected departmental procedures and revisions are reviewed by Nuclear Assurance before their issuance. The review attests that these procedures have beer reviewed for compliance with the Operations Quality Assurance Program. The review is documented and the comments on the current procedure revision will be maintained for verification.

5.10 Personnel Indoctrination and Training

5.10.1 General indoctrination and training programs shall be provided for site personnel to assure that they are knowledgeable regarding quality programs and requirements. The training requirements for STPEGS personnel are described in UFSAR Section 13.2. Records shall demonstrate compliance with applicable requirements. Personnel performing complex, unusual, or potentially hazardous work shall be instructed in special indoctrination or briefing sessions. Emphasis shall be on special requirements for safety of personnel, radiation control and protection, unique features of equipment and systems, operating constraints, and control requirements in effect during performance of work. Where required by codes and standards, personnel are trained, qualified, and certified according to written procedures in the principles and techniques of performing specific activities.

5.10.2 Personnel performing surveillance testing activities shall be similarly trained in accordance with written procedures.

5.10.3 Training will be conducted in a time frame adequate to allow personnel to prepare for their job responsibilities and before commencing quality-related work. Proficiency of personnel shall be maintained by retraining, reexamining, and/or recertifying in accordance with initial requirements and procedures.

5.10.4 In addition to general employee training and indoctrination described above, departmental and interdepartmental procedures provide for training of personnel who perform quality-related work. These procedures provide for training in the principles and techniques of the activity involved and for maintenance of proficiency of personnel by retraining, re-examining, and/or recertifying to an extent commensurate with the safety significance of the activity. The procedures address documentation of:

5.10.4.1 Scope, objective, and method of implementing the training program.

5.10.4.2 Documentation of the training sessions including attendees, dates, and results, where appropriate.

5.11 Policies and Goals

5.11.1 It is the policy of HL&P, acting as licensee and Project Manager for itself and the other owners of the STPEGS, to assure that the design, procurement, construction, testing, and operation of the STPEGS are in conformance with specifications, procedures, codes, and Nuclear Regulatory Commission (NRC) regulations. The responsibility of each organization supporting the STPEGS is to ensure that the requirements stated in this QA Program are incorporated into procedures. Adherence to those procedures is mandatory for all STPEGS organizations and contractors or vendors providing items or services covered by the QA Program.

5.11.2 The OQAP identifies activities and establishes requirements for procedures which identify, report, and verify the resolution of safety-related quality problems. The implementing procedures call for the resolution of quality problems at the lowest possible authorized level. However, if a dispute is encountered in the resolution of a quality problem which cannot be resolved at lower levels, Nuclear Assurance presents the problem to the Group Vice President, Nuclear, for resolution.

5.12 Control of Activities

5.12.1 The OQAP requires NA review and/or approval of procedures which control selected activities. These procedures shall require the use of the proper equipment, completion of prerequisites for starting an activity, and suitable environment for performing the activity. Procedures will comply with the appropriate standards.

5.12.2 STPEGS personnel attend planning, scheduling, and status meetings affecting quality-related activities as necessary to assure adequate QA coverage of program application exists.

5.13 Management Review

5.13.1 The implementation of the QA Program requirements shall be verified through independent and integral control activities. The QA Organization, under the General Manager, NA, shall conduct audits, surveillances, and inspections of the operating plant and of the interfacing organizations' quality-related activities.

5.13.2 The results of the audits, surveillances, and inspection activities are presented in a periodic report to the Group Vice President, Nuclear.

5.13.3 Assessments of HL&P's implementation of the Operations QA Program are conducted under the cognizance of the Nuclear Safety Review Board and results are transmitted to the Group Vice President, Nuclear for his review and/or action.

5.13.4 STPEGS may use the services of architect-engineer firms, Nuclear Steam Supply System (NSSS) suppliers, fuel fabricators, constructors, and others which provide or augment STPEGS efforts during operations. These organizations are required to work under a QA program to provide control of quality activities consistent with the scope of their assigned work. The QA programs of such contractors or consultants shall be subject to review, evaluation, and acceptance by QA before initiation of activities affected by the program.

5.14 Operations Quality Assurance Plan Changes

5.14.1 HL&P is committed to maintaining the OQAP as an effective and meaningful document to provide programmatic direction on STPEGS. Changes to the QA Program, as described in the OQAP, will be processed under 10CFR50.54(a). When changes are made in the OQAP to the organizational elements only, appropriate notification will be made to the NRC within 30 days of implementation.

5.15 Computer Code Programs

5.15.1 The development, control, and use of computer code programs which affect quality-related items will be controlled by OQAP. Prior to use of a computer code program in a quality-related activity, the appropriateness of the program shall be verified. In addition, all such programs shall be appropriately certified for use.

6.0 DOCUMENTATION

6.1 Procedures which are generated as required by this chapter shall identify the records which are required to implement and document those activities. The records shall be controlled in accordance with Reference 4.4.

6.2 Operations Quality Assurance Plan (OQAP)

7.0 ATTACHMENTS

7.1 Attachment I OQAP - 10CFR50, App. B Matrix

7.2 Attachment II OQAP - QA Program Documents

ATTACHMENT I

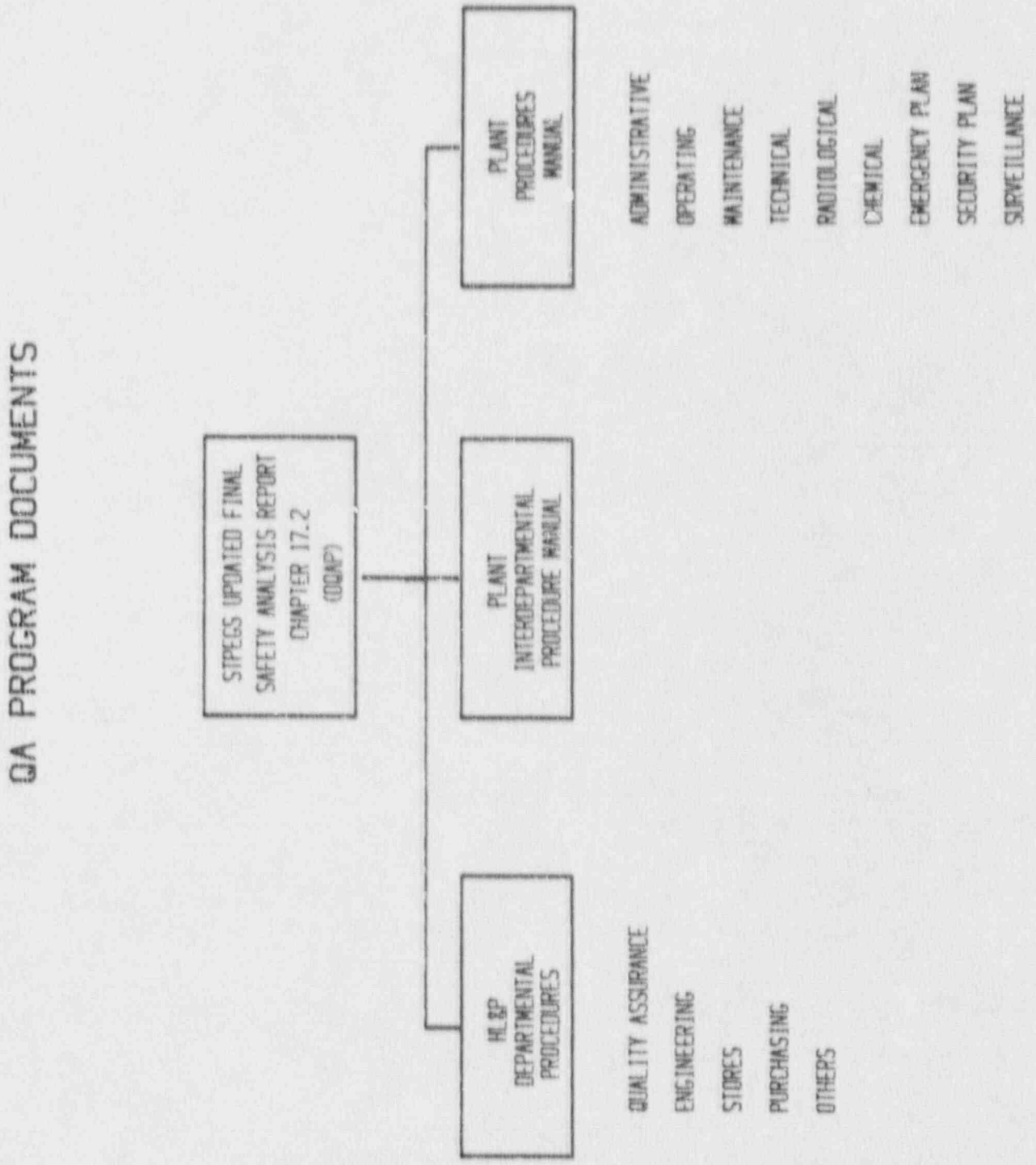
OPERATIONS QUALITY ASSURANCE PLAN CHAPTERS 10 CFR 50 APPENDIX B CRITERIA

1.0	Organization	I
2.0	Program Description	II
3.0	Conduct of Plant Operations	V, XIV
4.0	Qualification, Training and Certification of Personnel	II, IX
5.0	Maintenance, Installation of Modifications, and Related Activities	III, V, VIII, IX
6.0	Design and Modification Control	III
7.0	Procurement	IV, VIII, X, XIII, XIV, VII
8.0	Control and Issuance of Documents	V, VI
9.0	Control of Material	VIII, XIII, XIV, VII
10.0	Inspection	X
11.0	Test Control	XI
12.0	Instrument and Calibration Control	XII
13.0	Deficiency Control	XV, XVI
14.0	Records Control	XVII
15.0	QA Audit and Surveillance	XVIII
16.0	Nuclear Fuel Management	III, IV, VII, VIII, X, XIII, XIV

17.0	ASME Section XI Repairs and Replacements	*
18.0	ASME Section XI Examination and Testing	*

* These sections do not address 10 CFR 50 Appendix B criteria, but are included in the OQAP to identify STPEGS Code and ASME Section XI commitments.

ATTACHMENT II



IF5463

1.0 PURPOSE

1.1 The purpose of this chapter is to prescribe the requirements and responsibilities for the conduct of plant operations at the South Texas Project Electric Generating station (STPEGS).

2.0 SCOPE

2.1 This chapter applies to all personnel engaged in quality-related activities associated with the operation of the STPEGS.

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 STPEGS Technical Specifications

4.2 Regulatory Guide 1.33, Quality Assurance Program Requirements (Operations)

4.3 NUREG 0737, Requirements for Emergency Response

4.4 OQAP Chapter 14.0, Records Control

4.5 10CFR100, Reactor Site Criteria

5.0 REQUIREMENTS

5.1 Activities affecting quality-related structures, systems, and components shall be conducted in accordance with written, approved procedures, as delineated in Reference 4.2.

5.1.1 Procedural compliance and requirements for procedure use shall be prescribed in writing. Measures shall be established by which temporary changes to approved procedures can be made, including the designation of a person(s) authorized to approve such changes. Temporary changes which clearly do not change the intent of the approved procedure shall be made in accordance with Reference 4.1.

5.1.2 Guidance shall be provided to identify the manner in which procedures are to be implemented. Examples of such guidance include identification of those tasks that require:

5.1.2.1 The written procedure to be present and followed step by step while the task is being performed.

5.1.2.2 The operator to have committed the procedural steps to memory.

5.1.2.3 Verification of completion of significant steps by initial or signatures on checkoff lists.

5.1.3 The types of procedures that shall be present and referred to directly are those developed for extensive or complex tasks where reliance on memory cannot be trusted, e.g., reactor startup, tasks which are infrequently performed, and tasks in which operations must be performed in a specified sequence. Necessary data shall be recorded as the task is performed.

5.1.4 Temporary procedures may be issued to direct operations during testing, refueling, maintenance, and modifications; to provide guidance in unusual situations not within the scope of the normal procedures; and to ensure orderly and uniform operations for short periods when the plant, a system, or a component is performing in a manner not covered by existing detailed procedures or has been modified or extended in such a manner that portions of existing procedures do not apply. Temporary procedures shall include designation of the period of time during which the procedures are to be used and shall be subject to the same review and approval process as permanent procedures.

5.1.5 Emergency Operating Procedures shall be prepared in accordance with Reference 4.3.

5.2 Operating Orders

5.2.1 A mechanism shall be provided for issuing management instructions which have short-term applicability and which require dissemination. Such instructions, sometimes referred to as special orders, operating orders, or standing orders should encompass special operations, job-turnover and relief, data taking, publications and their distribution, plotting process parameters, personnel actions, or other similar matters.

5.2.2 A mechanism shall be provided for management to issue information and direction to the oncoming evening and night shifts. These night orders shall be signed and dated by a responsible supervisor.

5.3 Shift Operations

5.3.1 The responsibilities and authorities of Licensed Operations Personnel shall be specified in plant procedures. These procedures shall include responsibilities and authorities for startup, shutdown, and operation of the reactor and associated equipment, for observance of instrumentation and for implementation of the Emergency Plan (Refer to Reference 4.1). The cognizant Shift Supervisor shall be responsible for maintaining sufficient knowledge of system or equipment tests or inspections in progress to control the overall plant operation. Personnel performing tests or inspections shall keep the Shift Supervisor or Control Room Operator advised of the current status of tests or inspections in progress which may affect plant operations.

5.3.2 When operating during normal, abnormal or emergency conditions, the operator shall rely on plant instrumentation, unless proven to be incorrect. When operating parameters are not as expected, the unit shall be placed in a known safe condition. A manual reactor trip or safety system actuation shall be initiated if system parameters for reactor trip or safety systems

exceed their actuation setpoint and automatic actuation does not occur.

5.3.3 In the event of an emergency not covered by an approved procedure, operations personnel shall take action to minimize personnel injury, damage to the facility, and maintain offsite exposures within the requirements of 10CFR100.

5.4 Equipment Control

5.4.1 Procedures shall provide for control of equipment as necessary to maintain personnel and reactor safety and to avoid unauthorized operation of equipment. These procedures shall require control measures such as locking or tagging to secure and identify the control status of equipment, and responsibility and action necessary for isolating the equipment. These procedures shall require independent verifications where appropriate to ensure these measures have been correctly implemented.

5.4.2 Procedures shall provide for the identification of required tests and inspections and provide documentary evidence that the tests and inspections have been performed prior to considering the affected system operable.

5.4.3 Permission to release equipment or systems for maintenance shall be granted by designated operations personnel. These operations personnel shall verify before release that, based on a review of the plant technical specifications, the system or component can be released for the time period that it may be out of service. The requirements for equipment operability stated in Reference 4.1 shall be met.

6.0 DOCUMENTATION

6.1 Procedures which are generated as required by this chapter shall identify the records which are required to implement and document those activities. The records shall be controlled in accordance with Reference 4.4.

7.0 ATTACHMENTS

7.1 None

1.0 PURPOSE

1.1 The purpose of this chapter is to establish requirements for qualification, training, and certification of personnel whose activities may affect quality-related structures, systems, components and activities at the South Texas Project Electric Generating Station (STPEGS).

2.0 SCOPE

2.1 This chapter provides for the qualification, training and certification of personnel performing activities related to the structures, systems and components under the jurisdiction of the Operations Quality Assurance Plan (OQAP).

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 Regulatory Guide 1.8, Personnel Selection and Training

4.2 Regulatory Guide 1.58, Qualification of Nuclear Power Plant Inspection, Examination and Testing Personnel

4.3 Regulatory Guide 1.146, Qualification of Quality Assurance Program Audit Personnel for Nuclear Power Plants

4.4 SNT-TC-1A, Recommended Practice for Nondestructive Personnel Qualification and Certification

4.5 10CFR55 Operator's Licenses

4.6 ASME Section XI, Rules for Inservice Inspection of Nuclear Power Plant Components

4.7 OQAP Chapter 14.0, Records Control

5.0 REQUIREMENTS

5.1 General

5.1.1 Position qualification requirements shall be established for personnel performing activities within the scope of this document in accordance with Reference 4.1, 4.2, 4.3, 4.4, 4.5 and 4.6.

5.1.2 Programs shall be developed for training and certification of personnel. The programs shall provide for:

5.1.2.1 Establishing individual training files.

5.1.2.2 Documented certification, when required (i.e., NRC licensed personnel, NDE personnel).

5.1.2.3 Continuing training and retraining.

5.2 General Employee Training

5.2.1 A general employee training program shall be developed and administered to all personnel requiring unescorted access within the protected and/or vital areas. This program shall address but not be limited to the following:

5.2.1.1 Job related procedures and instructions

5.2.1.2 QA program indoctrination

5.2.1.3 Radiological health and safety

5.2.1.4 Industrial safety and fire protection

5.2.1.5 Emergency Plan

5.2.1.6 Security program

5.2.2 Temporary personnel employed at the STPEGS shall be trained in the above areas to the extent necessary to ensure satisfactory performance of their duties.

5.2.2 Temporary personnel employed at the STPEGS shall be trained in the above areas to the extent necessary to assure satisfactory performance of their duties.

5.3 Specialized Training Programs

5.3.1 NRC licensed operators shall be qualified, trained and certified in accordance with Reference 4.1 and 4.5.

5.3.2 Inspection, testing and examination personnel shall be qualified, trained and certified in accordance with Reference 4.2.

5.3.3 Nondestructive examination personnel shall receive training which meets the requirements of Reference 4.4 and 4.6.

5.3.4 Audit personnel shall be qualified, trained and certified to the requirements of Reference 4.3.

5.3.5 Other personnel shall be qualified and trained commensurate with the functions they perform (e.g., welding, coating, chemical cleaning, maintenance, etc.).

5.4 Training Waivers and Exemptions

5.4.1 Training Waivers

A training waiver may be used to substitute existing training requirements with documentation of experience, alternate or equivalent training, or demonstrated competency in the area(s) to be waived. Training waivers shall be controlled in accordance with approved procedures.

5.4.2 Exemptions

An exemption authorizes an individual whose experience, training, or certification does not satisfy or match minimum requirements to perform unsupervised duties in the exempted

area. An exemption may also be used to authorize an individual to perform the duties of the exempted area without meeting the minimum documentation requirements of a training waiver. Exemptions shall be controlled in accordance with approved procedures.

5.5 Procedures shall provide for the evaluation of job performance of employees to determine the capabilities of the individual to meet established qualification requirements.

5.6 Procedures shall provide for the recertification of appropriate personnel in accordance with applicable standards.

5.7 Training and certification of personnel, to the degree necessary for the activity, shall be completed prior to assignment of work on quality-related items or activities.

6.0 DOCUMENTATION

6.1 Procedures which are generated as required by this chapter shall identify the records which are required to implement and document those activities. The records shall be controlled in accordance with Reference 4.7.

7.0 ATTACHMENTS

7.1 None

1.0 PURPOSE

1.1 The purpose of this chapter is to establish requirements for the conduct of maintenance and installation controls for modifications on quality-related structures, systems, and components at the South Texas Project Electric Generating Station (STPEGS).

2.0 SCOPE

2.1 This chapter is applicable to maintenance and the installation of modifications including related activities such as special processes (e.g., welding, cleaning, and housekeeping).

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 Regulatory Guide 1.33, Quality Assurance Program Requirements (Operations)

4.2 OQAP Chapter 3.0, Conduct of Plant Operations

4.3 OQAP Chapter 4.0, Qualification, Training and Certification of Personnel

4.4 OQAP Chapter 8.0, Control and Issuance of Documents

4.5 OQAP Chapter 12.0, Instrument and Calibration Control

4.6 OQAP Chapter 14.0, Records Control

5.0 REQUIREMENTS

5.1 Maintenance, the installation of modifications, and related activities which may affect the functioning of structures, systems, or components shall:

5.1.1 Be performed in a manner to ensure quality equivalent to that specified in original design bases and requirements, materials specifications, and inspection requirements, or a documented engineering approved alternative.

5.1.2 Be preplanned and performed in accordance with written procedures, documented instructions, or drawings appropriate to the circumstances which conform to applicable codes, standards, specifications, and criteria, and:

5.1.2.1 Address controls which assure quality of maintenance and modification installation activities (for example: inspections, measurements, tests, welding, heat treatment, cleaning, nondestructive examination, and personnel qualifications) and contain provisions to document the performance thereof.

5.1.2.2 Contain measures which identify the inspection and test status of material, equipment, and components used in maintenance and modification installation activities.

5.1.2.3 Assure that the equipment has been returned to normal operating status at the completion of the work which includes verification of functional acceptability.

5.1.2.4 Be performed by or under the supervision of qualified personnel and in such a manner that the activity can be safely performed under the existing plant operating conditions.

5.1.2.5 Be performed only after authorized release of equipment in accordance with procedures that meet the requirements of Reference 4.2.

5.1.2.6 Provide measures for the protection of workers and equipment, including personnel entry into enclosed spaces such as tanks and voids.

5.1.2.7 Provide means of preventing unauthorized operation of equipment (e.g., locking or tagging).

5.1.2.8 Assure control of temporary modifications (e.g., blank flanges or temporary electrical jumpers).

5.1.2.9 Provide a method of ensuring that all required tests and inspections are complete prior to return to service of the item on which the work was performed.

5.1.3 Assure procedures, and changes thereto, are reviewed and approved in accordance with Reference 4.4.

5.2 Preventive Maintenance

5.2.1 A preventive maintenance program shall be maintained which prescribes the frequency and type of maintenance to be performed. This program is based on service conditions, manufacturer's recommendations, and experience with comparable equipment. It will be revised and updated as operating experience is gained.

5.3 Corrective Maintenance

5.3.1 The cause of malfunctions shall be promptly determined, evaluated, and recorded.

5.3.2 Replacement components of a new type shall receive adequate testing or be of a design for which experience indicates a high probability of satisfactory performance.

5.3.3 Where unproven reliability of a new or repaired component which could affect nuclear safety exists, consideration should be given to an augmented testing and inspection program until a suitable level of performance has been demonstrated.

5.4 Emergency Maintenance

Should operating conditions occur which warrant immediate corrective maintenance in order to prevent or mitigate the release of radioactive material, hazards to personnel, or extensive equipment damage, then the following shall apply:

5.4.1 Direct corrective action shall be taken to stabilize the condition. Procedures shall designate those operating individuals responsible for authorizing this initial corrective action for various structures, systems, or components.

5.4.2 Once the condition has stabilized, the initial corrective action taken shall be documented and reviewed in accordance with approved procedures. If the initial action taken is judged to be incorrect or inadequate, alternative corrective action shall be taken.

5.5 Control of Special Process

5.5.1 Special processes include manufacturing processes, inspections, tests, and others which require qualification of the procedures, technique or personnel to control the quality of the process. Special processes (e.g., welding, heat treating, chemical cleaning, protective coating, and nondestructive examination) shall be performed in accordance with applicable codes, standards, specifications, criteria and other special requirements as qualified by Nuclear Generation, Nuclear Engineering, or Nuclear Assurance, as applicable.

5.5.1.1 Written procedures shall be established and utilized to assure these activities are accomplished in a controlled manner.

5.5.1.2 Special processes shall be performed by qualified personnel using qualified procedures. Personnel shall be qualified under Reference 4.3.

Procedures and equipment shall be qualified under applicable codes and standards.

5.5.1.3 The necessary qualification of personnel, procedures or equipment shall be uniquely defined:

- o For special processes not covered by existing codes or standards, or
- o Where an item's quality requirements exceed the requirements of established codes and standards.

5.5.1.4 Records shall be maintained and kept current for the qualification of procedures, equipment, and personnel associated with special processes. Records are in sufficient detail to clearly define the procedures, equipment, or personnel being qualified, criteria or requirements used for qualification, and the individual approving the qualification.

5.5.1.5 Procedures shall provide for the control of special process identification indicators, such as welders stamps, as appropriate.

5.5.2 Control of Outside Contractors

5.5.2.1 Qualified outside organizations may be employed to perform special processes and shall be required to conform to the requirements described in this chapter. Special process procedures submitted by an outside organization in accordance with procurement document requirements shall receive a technical review by the responsible engineering organization.

5.6 Housekeeping and Cleanness Control

5.6.1 Housekeeping and cleanness control practices shall be established which assure that:

5.6.1.1 The nature of work activities, conditions, and environments that can affect the quality of structures, systems, and components is controlled. Control measures shall be established to prevent the entry of extraneous material into a closed system and to ensure that foreign material is removed before the area is closed.

5.6.1.2 Appropriate cleaning materials, equipment processes, and procedures are used to assure that the quality of an item is not degraded as a result of housekeeping or cleaning practices or techniques and provide for the disposal of combustible material and debris to support fire protection.

5.6.1.3 Access is controlled to prevent foreign material introduction during the maintenance or modification of systems.

- Cleaning following maintenance or modification of radioactively contaminated systems or equipment in radiation fields shall require special consideration for radioactive contamination control and storage of radioactive waste.

- Prior to closure of designated systems or components, an inspection shall be conducted to assure cleanness. The results of the inspection shall be documented.

5.6.1.4 Where necessary, special cleaning requirements associated with certain equipment shall be addressed in appropriate procedures.

5.7 Documents Associated with Maintenance/Modifications

5.7.1 Documents, such as maintenance, modifications, and installation procedures, maintenance requests, drawings, specifications and others shall be issued, reviewed and controlled in accordance with Reference 4.4.

5.7.2 Maintenance, modification, and installation documents shall be traceable to the structure, system or component repaired, replaced, or maintained and shall as a minimum contain the following:

5.7.2.1 Description of components.

5.7.2.2 Description of work done including parts used.

5.7.2.3 Names of responsible persons doing work.

5.7.2.4 Traceability of parts used.

5.7.2.5 Reference to measuring and test equipment used.

5.7.2.6 Inspection and test status.

6.0 DOCUMENTATION

6.1 Procedures which are generated as required by this chapter shall identify the records which are required to implement and document those activities. The records shall be controlled in accordance with Reference 4.6.

7.0 ATTACHMENTS

7.1 None

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION OPERATIONS QUALITY ASSURANCE PLAN DESIGN AND MODIFICATION CONTROL	NUMBER Chapter 6.0	REV. NO. 5
	PAGE 1 OF 6	
	EFFECTIVE DATE 12-21-90	

1.0 PURPOSE

1.1 The purpose of this chapter is to establish the requirements and responsibilities for design control of new structures, systems or components, and modification control of existing structures, systems, or components at the South Texas Project Electric Generating Station (STPEGS).

2.0 SCOPE

2.1 This chapter applies to the design and modification activities associated with the preparation and review of design documents including the translation of applicable Code of Federal Regulation requirements and design bases into design documents.

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 STPEGS Technical Specifications

4.2 OQAP Chapter 5.0, Maintenance, Installation of Modifications, and Related Activities

4.3 OQAP Chapter 14.0, Records Control

4.4 10CFR50.59, Changes, Tests and Experiments

5.0 REQUIREMENTS

5.1 Measures shall be established to document selection of design inputs. Changes to specified design inputs, including identification of their source, shall be identified and documented. As the design evolves, any unreviewed safety question evaluations shall be performed as required by 10CFR50.59.

5.2 Measures shall be established to control design activities to assure design inputs are translated into design documents such as specifications, drawings, procedures, or instructions.

5.2.1 Design activities involving reactor physics; stress, thermal, hydraulic, and accident analysis; materials compatibility; and accessibility for maintenance, inservice inspection, and repair will be performed according to approved procedures by appropriately qualified individuals. Results of analyses will be appropriately verified and documented.

5.2.2 Design documents shall include appropriate quality standards. If an alternate quality requirement is used (e.g., other than the originally specified quality standard) the change shall be documented and approved.

5.2.3 Design analyses shall be sufficiently detailed as to purpose, method, assumptions, design input, references, units, and status (preliminary or final) such that a technically qualified person can review and understand the analyses and verify the adequacy of the results without recourse to the originator.

5.2.4 A review for application suitability of materials, parts, equipment, and processes essential to the functions of quality-related structures, systems, and components is done as part of the design document preparation and review process. The procedures which govern the preparation and review of design documents require that valid industry standards and specifications be used for this review. Review of standard off-the-shelf commercial materials, parts, and equipment for suitability of application with quality-related structures, systems, and components will be conducted before selection. Procedures shall identify design documents which require an inline QA review. This review is for seismic and quality group classification, selection of quality standards, and any deviation from quality standards.

5.3 Measures shall be established to identify and control design interface among participating organizations (internal and external).

5.4 Measures shall be established to verify adequacy of design and design changes.

5.4.1 The design process shall include design verification by qualified persons to assure that the design is adequate and meets specified design input. Design control procedures shall specify requirements for the selection and performance of design verification. Design verification shall be either by design review, alternate calculation, qualification testing, or by a combination of these. The depth of design verification shall be commensurate with the importance of the system or component to plant safety, complexity of the design, and similarity of design to previous designs.

5.4.1.1 If the verification method performed is only through qualification testing, the following are required.

- Procedures shall provide criteria that specify when verification should be by test.
- Prototype, component, or feature testing shall be performed as early as possible before installation of plant equipment, or before the point when the installation would become irreversible.
- Verification by test shall be performed under conditions that simulate the most adverse design conditions as determined by analysis.

5.4.2 Design verification shall be performed by competent individuals or groups other than those who performed the original design.

5.4.3 Design verification should not be performed by individuals that have immediate supervisory responsibility for the individual performing the design; have specified a singular design approach; have ruled out certain design considerations; or have established the design inputs for that particular design aspect. However, the supervisor may perform the verification if the supervisor is the only technically qualified individual and the need for the supervisor to perform the review is approved and documented in advance by the supervisor's management.

5.4.4 Design verification will normally be performed prior to release for procurement, manufacture, installation, or use by another organization in other design activities. Exceptions shall be justified and documented. Procedures shall control the justification of exceptions and the completion of the verification of all affected design output documents prior to relying on the component, system, or structure to perform its function.

5.5 Measures shall be established to control the approval, issuance, and changes of design documents to prevent the inadvertent use of superseded design information. Design documents include design drawings and specifications, vendor documents, setpoints with tolerances and design limits.

5.6 Changes made to design documents are reviewed and approved by the same groups or organization which reviewed and approved original design documents. If the organization which originally approved a particular design document is no longer responsible, another organization may be designated if competent in the specific design area, has access to pertinent background information and has an adequate understanding of the requirements and intent of the original design.

5.7 Errors and deficiencies found in approved design documents, including design methods, that could adversely affect quality-related structures, systems, or components shall be documented and action taken to

correct and prevent the recurrence of deficiencies.

5.8 Measures shall be established for the identification and control of deviations from specified quality standards.

5.9 Measures shall be established which assure that maintenance and modifications associated with design changes which may affect the functioning of quality-related structures systems, or components are performed in a manner to ensure quality at least equivalent to that specified in the UFSAR or other original design bases and requirements.

5.10 Measures shall be established to maintain the list of quality-related structures, systems, and components current after modifications are made.

5.11 Measures shall be established to assure that only verified, qualified and controlled computer codes are authorized for use.

5.12 Modifications

5.12.1 Modifications to quality-related structures, systems, and components shall be controlled, reviewed, and approved.

5.12.2 Installation and testing of modifications shall be performed in accordance with Reference 4.2 and approved procedures. These procedures shall contain provisions as appropriate to ensure quality of installation and appropriate post modification testing.

5.12.3 Quality-related structures, systems, and components shall not be declared operable after a modification until the following provisions are satisfied:

5.12.3.1 Affected procedures are revised and distributed to appropriate users.

5.12.3.2 Appropriate personnel are trained.

5.13 Plant Modifications will be checked against the design change documentation for proper implementation prior to closing out the design change process.

6.0 DOCUMENTATION

6.1 Procedures which are generated as required by this chapter shall identify the records which are required to implement and document those activities. The records shall be controlled in accordance with Reference 4.3.

7.0 ATTACHMENTS

7.1 None

1.0 PURPOSE

1.1 The purpose of this chapter is to establish the requirements for procurement of items and services for the South Texas Project Electric Generating Station (STPEGS).

2.0 SCOPE

2.1 This chapter applies to the procurement of quality-related items and services, and commercial grade items procured for dedication and use in a nuclear safety-related application. These activities include procurement document control, bid evaluation, vendor evaluation, verification of vendor activities and receiving inspection.

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 10CFR50, Appendix B

4.2 10CFR21, Reporting of Defects and Noncompliance

4.3 ANSI N45.2.12/Reg. Guide 1.144, Auditing of Quality Assurance Programs for Nuclear Power Plants

4.4 ANSI N45.2.13/Reg. Guide 1.123, Quality Assurance Requirements for Control of Procurement of Items and Services for Nuclear Power Plants

4.5 ANSI N45.2.2/Reg. Guide 1.38, Packaging, Shipping, Receiving, Storage and Handling of Items for Water-Cooled Nuclear Power Plants

4.6 ANSI N18.7/Reg. Guide 1.33, Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants

4.7 EPRI NP-5652 (NCIG-07), Guideline for the Utilization of Commercial Grade Items in Nuclear Safety Related Application

4.8 OQAP Chapter 4.0, Qualification, Training and Certification of Personnel

4.9 OQAP Chapter 13.0, Deficiency Control

4.10 OQAP Chapter 14.0, Records Control

5.0 REQUIREMENTS

5.1 Procurement Document Preparation, Review and Control

5.1.1 Responsibility for procurement is a joint effort of all the departments within the Nuclear Group. The department requesting the quality-related material or service provides technical content. NA reviews the request for quality requirements and the Nuclear Purchasing and Materials Management Department (NPMM) is responsible for commercial provisions.

5.1.2 The sequence of preparation, review, approval, and issuance of procurement documents is generally as follows:

5.1.2.1 Purchase Requisitions

- Purchase requisition forms shall be used to initiate the procurement of quality-related materials, parts, components, services, and Commercial Grade Items (CGI). Procurement may be initiated by any Nuclear Group personnel.

- Purchase requisitions shall include material and component identification requirements, drawings, specifications, standards, inspection and test requirements, and special process instructions as appropriate.

- Purchase requisitions for quality-related materials, parts, components, services, or CGIs shall be reviewed by the cognizant technical organization and NA

personnel to verify that adequate technical and quality requirements, respectively, have been specified. The reviews for technical and quality requirements shall be performed by someone other than the originator of the requisition.

5.1.2.2 Purchase Orders and Contracts

- o Purchase orders and contracts are prepared and issued by NPMM and establish for the suppliers the technical and quality requirements which must be met. These documents also establish the commercial conditions for the procurement action.

- o Purchase orders and contracts shall accurately reflect the technical and quality requirements established by the Purchase Requisition. If, during the bid negotiations with the supplier, it becomes necessary or commercially desirable to change the technical or quality requirements, such changes shall be presented for approval to the cognizant technical organization which approved the original requirements and to Nuclear Assurance.

5.1.2.3 Change Controls

- o Additions, modifications, exceptions, and other changes to procurement document quality and technical requirements shall require a review and approval equivalent to that of the original document. Commercial consideration changes not affecting the technical or quality requirements may not require review and concurrence by the originator.

5.1.3 For the procurement of spare or replacement

parts, equipment, materials, and services, the quality and technical requirements shall be equal to or greater than the design basis requirements for the original part, equipment, materials or services; except where less stringent quality or technical requirements may be established based on specific evaluations and justification. The cognizant technical organization shall document such justification.

5.1.3.1 Safety related items may be procured as CGIs if a documented engineering evaluation indicates the CGI will provide equivalent performance.

5.1.3.2 Review of purchasing documents by NA personnel shall verify that quality requirements are correctly stated, verifiable, and controllable; that acceptance/rejection criteria are included; and that the documents have been prepared, reviewed, and approved in accordance with STPEGS QA Program requirements.

5.2 Procurement Document Content

5.2.1 Procurement document control measures shall assure that appropriate regulatory requirements, design bases, and other requirements are included in the procurement process. Originating and reviewing organization procedures shall require that the following be included or invoked by reference in procurement documents as appropriate:

5.2.1.1 Applicable regulatory, code, and design requirements, including applicable material and component identification requirements, drawings, specifications, standards, inspection and test requirements, special process instructions and handling, preservation, cleaning, storage, packaging and shipping

requirements. These requirements shall equal or exceed the original requirements and be sufficient to preclude repetition of defects.

5.2.1.2 Extent that supplier QA program shall comply with 10CFR50, Appendix B or the QA program requirements of other nationally recognized codes and standards, as applicable; or for CGIs to be dedicated for safety related use by HL&P based on the results of a survey of the vendor's controls, the vendor's HL&P approved and/or surveyed program.

5.2.1.3 Requirements for supplier documents, such as instructions, procedures, drawings, specifications, inspection and test records, and suppliers' QA records to be prepared, submitted, or be made available for review and/or approval by STPEGS personnel.

5.2.1.4 Requirements for suppliers of quality-related items to maintain the status of required inspections or tests throughout the manufacturing process to preclude inadvertent bypassing of such inspections and tests.

5.2.1.5 Requirements for HL&P's right of access to suppliers' facilities and work documents for inspection and audit.

5.2.1.6 Requirements for extending applicable STPEGS procurement requirements to lower-tier suppliers and subcontractors, including HL&P's access to facilities and records.

5.2.1.7 Requirements for supplier reporting to STPEGS nonconformances to procurement document requirements and conditions for their disposition.

5.2.1.8 Requirements for the retention, control, and maintenance of supplier QA records that are not maintained by HL&P. Supplier-furnished records shall include:

- Documentation that identifies the purchased item and the specific procurement requirements (e.g., codes, standards, and specifications) met by the item.
- Documentation identifying any procurement requirements that have not been met.
- A description of those nonconformances from procurement requirements dispositioned "accept-as-is" or "repair".

5.2.1.9 Requirement for the supplier to submit a copy of its QA program description (does not apply for CGIs).

5.2.1.10 Requirements for the performance of maintenance and receipt inspection checks where applicable.

5.2.1.11 Applicability of 10CFR21 reporting requirements.

- The reporting requirements of 10CFR21 do not apply to vendors of CGIs to be dedicated for use by HL&P.

5.3 Bid Evaluation

5.3.1 Bid Evaluations shall be performed to evaluate adherence to technical and quality assurance requirements.

5.4 Supplier Selection

5.4.1 Suppliers of quality-related items or services shall be required to submit copies of their QA program description for evaluation prior to the issuance of a purchase order or execution of a contract, and acceptability shall be documented. The process by which suppliers are judged as being a capable procurement source is described as follows:

5.4.1.1 Procurement source evaluation and selection involves QA, Engineering, NPMM, and STPEGS plant personnel, as appropriate. These organizations participate in the qualification evaluation of suppliers in accordance with written procedures.

5.4.1.2 Measures for the evaluation and selection of procurement sources shall be specified in procedures and may vary depending upon the complexity and safety classification of the item or service. When procurement source evaluations are performed, the information to be considered shall include one or more of the following:

- Experience of users of identical or similar products of the prospective supplier, other utility or approved contractor audits/evaluations, audits/evaluations by cooperative utility groups, American Society of Mechanical Engineers (ASME) Certificates of Authorization, STPEGS records accumulated in previous procurement actions, and STPEGS product operating experience

may be used in this evaluation. When other utility, contractor or cooperative utility audits/evaluations are used, the documentation will be obtained and reviewed. Supplier history shall reflect recent capability. Previous favorable experience with suppliers may be an adequate basis for judgments attesting to suppliers' capability.

- An evaluation of the supplier's current quality records supported by documented qualitative and quantitative information which can be objectively evaluated. This may include review and evaluation of the supplier's QA Program Manual, procedures, and responses to questionaires, as appropriate.

- A source evaluation of the supplier's technical and quality capability as determined by a direct evaluation of facilities and personnel (audit, survey, or surveillance) and quality program implementation. Resolution or a commitment to resolve unacceptable technical or quality requirements identified by the bid evaluation or vendor evaluation shall be obtained prior to the award of a purchase order or contract.

5.4.1.3 Procurement source evaluations involve a review of technical and quality considerations to an extent considered appropriate by each participant. Technical considerations include the design or manufacturing capability and technical ability of suppliers to produce or provide the design, service, item or component. Quality considerations include one of the previously stated methods of supplier

evaluation and a consideration of a supplier's current quality program or capabilities.

5.4.1.4 A documented quality assurance evaluation of a quality-related vendor's quality program shall be performed to assure it meets the appropriate requirements of 10CFR50 Appendix B, or where applicable, other nationally recognized codes and standards.

5.4.1.5 Vendors may be placed on the Approved Vendors List after passing this evaluation.

5.4.1.6 A vendor shall not be issued a purchase order or contract unless they have been accepted for placement on the Approved Vendors List or an exception has been approved by the General Manager, Nuclear Assurance.

5.4.1.7 Service organizations which will supply only manpower and no other service are not required to be on the Approved Vendors List or have an STPEGS approved quality assurance program as long as the supplied personnel are trained and work under the auspices of the STPEGS Operations Quality Assurance Plan.

5.4.2 Each vendor on the Approved Vendors List shall be evaluated by Nuclear Assurance at least once each twelve months as provided by Reference 4.4.

5.4.2.1 A vendor may be removed from the Approved Vendors List if evaluation determines the vendor is unacceptable, the vendor requests removal or by direction of the General Manager, Nuclear Assurance.

5.4.3 Planning of verification activities to be employed for item or service acceptance shall begin during the purchase requisition or

contract preparation and review stage. The extent of the verification activities will vary and be a function of the relative safety significance, complexity of the purchased item or service, and the supplier's past performance. The verification activities may include vendor surveillance, receipt inspection, or post-installation testing.

Verification activities are planned to assure conformance to procurement document requirements. Procedures shall establish the organizational responsibilities for identifying required verifications and methods, performing and documenting the verification activities.

5.4.3.1 Vendor surveillance shall be performed using surveillance plans developed in accordance with QA procedures with appropriate input from the cognizant technical organization. The surveillance plan shall specify the characeristics or processes to be witnessed, inspected or verified, and accepted; the method of surveillance; and the documentation required.

5.4.3.2 Vendor surveillance inspections may be waived by the General Manager, Nuclear Assurance or designee.

5.4.3.3 Vendor related reports shall be evaluated to determine the effectiveness of the vendor's quality assurance program.

5.5 Receiving Inspection

5.5.1 Received purchased items shall be inspected for shipping damage and the requirements of ANSI N45.2.2 Section 5.2.1 and the applicable attributes of Section 5.2.2.

5.5.2 Receiving inspection shall be coordinated with vendor surveillance inspection. If vendor surveillance inspection is not performed or did not address all applicable attributes, receipt

inspection shall be performed and shall include the applicable additional attributes listed in ANSI N45.2.2 Section 5.2.2, except for commercial grade items dedicated by survey which shall be receipt inspected as required by the procurement document.

5.5.3 Receiving inspection checklists shall be developed using the requirements specified in the procurement documents and applicable attributes of ANSI N45.2.2.

5.5.4 Statistical sampling methods may be used for groups of similar items. Sampling shall comply with nationally recognized methods or approved engineering alternates.

5.5.5 Receiving inspections shall be performed by personnel trained and qualified in accordance with Reference 4.8. Technical assistance shall be provided by Nuclear Generation or Nuclear Engineering as applicable.

5.5.6 Receiving inspection activities shall include:

5.5.6.1 Identifying materials, parts, and components and their status upon receipt by tagging or other acceptable means of identification, or segregating and controlling items in receiving hold areas separate from the storage facilities for acceptable items. Identification of items shall correspond to the identification required by procurement documents and be noted on receiving documentation.

5.5.6.2 Verification of items for this acceptance, including examination for shipping damage, correctness of identification, and specified quality documentation.

5.5.6.3 Inspecting or testing, where appropriate, using approved procedures and calibrated tools, gauges, and measuring equipment for verification

acceptance of items, including off-the-shelf items.

5.5.6.4 Items determined to be acceptable for use shall be identified with an "accept" tag or other acceptable means of identification prior to release for storage or use.

5.5.6.5 Received items which do not conform to procurement documents are controlled and segregated (if practical) and processed in accordance with Reference 4.9.

5.5.7 Acceptance by post-installation test may be utilized following one of the preceding verification methods. Post-installation testing may be used for acceptance verification when it is difficult to verify item quality characteristics, the item requires an integrated system checkout or test, or the item cannot demonstrate its ability to perform when not in use. Engineering specifications shall be used for developing post-installation test instruction requirements and acceptance documentation. Post-installation testing is the responsibility of the Plant Manager, STPEGS, and is witnessed by NA personnel at specified hold points.

5.5.8 Acceptance of Procured Items and Services

5.5.8.1 Acceptance of items and services shall be based on one or more of the following:

- o Written certifications
- o Supplier audit
- o Source inspection
- o Receiving inspection
- o Vendor Surveillance
- o Post-installation test

5.5.9 Documented evidence from the supplier that procured items meet procurement quality requirements such as codes, standards, or specifications will be maintained at the plant site. Such evidence shall be provided by the supplier, at the time of source or receipt inspection, for review and verification before acceptance. The documented evidence will be retrievable and available at the plant site prior to installation or use of the procured item, unless otherwise controlled in accordance with OQAP Chapter 13.0, Para. 5.1.9.

5.6 Vendor Surveillance and Audit

5.6.1 Suppliers Certificates of Conformance are periodically evaluated by audits, independent inspections, or tests to assure that they are valid and results are documented. When acceptance is based upon supplier audit or vendor surveillance, documented evidence shall be furnished to the plant receiving organization.

5.6.1.1 Acceptance by vendor surveillance may be considered when the item or service is vital to plant safety; or the quality characteristics are difficult to verify after receipt; or the item or service is complex in design, manufacture, inspection, or test. Vendor surveillance involves a physical presence to monitor, by observation, designated activities for the purpose of evaluating supplier performance and product acceptance.

5.6.2 The STPEGS NA audit program provides for periodic scheduled audits of suppliers, contractors, subcontractors, and others performing safety-related work. The audit schedule is prepared and updated by NA. Frequency of these audits is based upon the safety, complexity, and quality requirements, and as a minimum shall be in compliance with Reference 4.3.

6.0 DOCUMENTATION

6.1 Procedures which are generated as required by this chapter shall identify the records which are required to implement and document those activities. The records shall be controlled in accordance with Reference 4.10.

7.0 ATTACHMENTS

7.1 None

1.0 PURPOSE

1.1 The purpose of this chapter is to establish the requirements for review, approval, distribution and use of quality-related documents such as instructions, procedures and drawings, including changes thereto for the South Texas Project Electric Generating Station (STPEGS).

2.0 SCOPE

2.1 This chapter is applicable to documents which control quality activities for the licensing, operation, testing, maintenance, and plant modification of the STPEGS. These documents include, but are not limited to, instructions; procedures; specifications; drawings; vendor manuals; status registers (such as drawing lists, equipment list); procurement documents; design documents; design change requests; as-built documents; non-conformance and deficiency reports; Updated Final Safety Analysis Report and program manuals (such as OQAP, Emergency Plan, Inservice Inspection Plan, etc.).

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 OQAP Chapter 6.0, Design and Modification Control

4.2 OQAP Chapter 14.0, Records Control

5.0 REQUIREMENTS

5.1 Procedures shall be established which identify the organizations or individuals responsible for the preparation, review, approval, and issuance of quality related documents and changes thereto.

5.2 Departments responsible for program-implementing documents shall be required to provide and assure the necessary review and approval, prior to use, for instructions, procedures, and drawings. Review and approval assures that issued documents include proper quality and technical requirements, and are correct for their intended use. Additionally, individual

departments are responsible for controlling documents generated or reviewed in the department for which the department has preparation and final approval or external interface responsibility.

5.3 Document reviews shall be performed by appropriately qualified personnel with access to pertinent background information to establish a basis for an adequate review. Nuclear Assurance shall review selected documents for quality requirements.

5.4 Procedures shall establish controlled distribution of documents and changes thereto including:

5.4.1 Establishing current and updated distribution lists.

5.4.2 Personnel or organizations acknowledging receipt and insertion of controlled documents and changes thereto.

5.4.3 Controlling documents to avoid the use of outdated or inappropriate documents.

5.4.4 Establishing and maintaining master document lists identifying the current revision of documents.

5.4.5 Temporary changes to procedures.

5.5 Documents shall be available and used at work locations by individuals or organizations performing quality-related activities when required based upon the nature of the work. Clearly identified controlled copies of documents shall be available at the point of use prior to commencing activities.

5.6 Revisions or changes to documents shall be reviewed and approved by the same organizations that performed the original review and approval unless other organizations are designated and have knowledge of the requirements and intent of the original document. Personnel using a document to perform quality related activities are responsible for assuring the documents being used are the correct revision prior to such use.

5.7 Procedure reviews shall be performed:

5.7.1 Following an unusual incident such as an accident, unexpected transient, significant operator error, or unusual equipment malfunction.

5.7.2 Following a plant modification to a system to which a specific procedure is applicable.

5.7.3 No less frequently than every two years by an individual knowledgeable in the area affected by the procedure to determine if changes are necessary or desirable. This review shall be performed by a member of a designated review group as an independent activity that is at least as rigorous as the initial procedure review. A general revision to a procedure constitutes a review.

5.8 Procedures shall be developed for the control and distribution of vendor/contractor documents such as approved drawings, specifications, technical manuals and instructions.

5.9 Control of design documents is addressed in Reference 4.1.

6.0 DOCUMENTATION

6.1 Procedures which are generated as required by this chapter shall identify the records which are required to implement and document those activities. The records shall be controlled in accordance with Reference 4.2.

7.0 ATTACHMENTS

7.1 None

1.0 PURPOSE

1.1 The purpose of this chapter is to describe requirements and assign responsibility for control of material at the South Texas Project Electric Generating Station (STPEGS).

2.0 SCOPE

2.1 This chapter applies to identification, control and traceability of material, parts and components during receipt, storage, handling, issuance, installation and shipping activities.

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 ANSI N45.2.2/Reg. Guide 1.38, Packaging, Shipping, Receiving, Storage and Handling of Items for Nuclear Power Plants

4.2 ANSI N45.2.3/Reg. Guide 1.39, Housekeeping During the Construction Phase of Nuclear Power Plants

4.3 OQAP Chapter 4.0, Qualification, Training and Certification of Personnel

4.4 OQAP Chapter 7.0, Procurement

4.5 OQAP Chapter 14.0, Records Control

5.0 REQUIREMENTS

5.1 Quality-related material, equipment, and components shall be handled, stored, shipped, cleaned, and preserved to assure that the quality of items is maintained from fabrication through installation.

5.2 Identification and Traceability Requirements

5.2.1 Physical identification of material (including consumables), parts and components shall be used whenever possible or practical and identification shall be traceable to the

appropriate documentation such as drawings, specifications, purchase orders, manufacturing and inspection documents, deviation reports, and physical and chemical test reports.

5.2.2 Identification marking requirements include:

5.2.2.1 Where physical identification marking is used, the marking shall be clear, unambiguous and indelible and shall be applied in such a manner as not to affect the function of the item.

5.2.2.2 Markings shall be transferred to each part of an item whenever possible or practical when subdivided and shall not be hidden or obliterated by surface treatment or coatings unless other means of identification are substituted (e.g., color coding).

5.2.2.3 Procedures shall specify that identification be maintained, either on the item or on records traceable to the item, and verified as required throughout fabrication, erection, installation, and use of the item. The identification must be verified and documented prior to release for fabrication, erection, installation and/or use of the item.

5.3 Material Storage

5.3.1 Measures shall be established for the control of items in storage which include: storage location, storage levels, procedures which require periodic surveillance of stored items to verify specific protective environmental requirements, inspection results, item care and protective measures, personnel access to storage areas, and material issues. Control of items in storage shall comply with the requirements of Reference 4.1. Storage conditions commensurate with the safety classification of the materials will be maintained.

5.3.2 Procedures shall be developed for storage of chemicals, reagents, lubricants, and other consumable materials which will be used in conjunction with quality-related systems. Items having limited shelf or operating life shall be identified and controlled to preclude the use of expired items.

5.4 Material Handling

5.4.1 Procedures shall be developed for handling of items which, because of weight, size, susceptibility to shock damage or other conditions, require special handling.

5.4.2 Measures shall be established to rate and inspect hoisting and handling equipment in accordance with Reference 4.1.

5.5 Shipping

5.5.1 Measures shall be established for the packaging, loading and transportation of items off-site in accordance with Reference 4.1.

5.6 Housekeeping

5.6.1 Measures shall be established for housekeeping activities in the warehouse areas which include: zone designation, environment control, work area cleanliness, fire protection, inspection, and surveillance. These measures shall meet the requirements of Reference 4.2.

5.7 Personnel performing handling, preservation, storage, cleaning, packaging, shipping, and inspection to the requirements of this chapter shall be trained and qualified per Reference 4.3.

6.0 DOCUMENTATION

6.1 Procedures which are generated as required by this chapter shall identify the records which are required to implement and document those activities. The records shall be controlled in accordance with Reference 4.5.

7.0 ATTACHMENTS

7.1 None

1.0 PURPOSE

1.1 The purpose of this chapter is to prescribe the requirements and the responsibilities for inspection.

2.0 SCOPE

2.1 This chapter is applicable to inspection activities associated with quality-related systems, structures and components at the South Texas Project Electric Generating Station (STPEGS).

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 OQAP Chapter 4.0, Qualification, Training and Certification of Personnel

4.2 OQAP Chapter 12.0, Instrument and Calibration Control

4.3 OQAP Chapter 14.0, Records Control

5.0 REQUIREMENTS

5.1 Inspection

5.1.1 Inspections shall be performed by written and approved procedures. The inspection criteria established for performing inspections and the detail of the inspection process shall be determined based on the complexity of the activity and possible safety impact to the plant. Qualification of individuals performing inspections shall be in accordance with Reference 4.1. These individuals shall be other than those who performed or directly supervised the activity being inspected and do not report to the same immediate supervisor. Inspection requirements may be included as a part of the document controlling the activity, or a separate inspection procedure prepared to specify, as appropriate, the inspection performance requirements as noted below.

5.1.1.1 Identification of characteristics and activities to be inspected

5.1.1.2 Acceptance and rejection criteria

5.1.1.3 Inspection process utilized

5.1.1.4 Identification of procedures, drawings, specifications, and revisions utilized

5.1.1.5 Specification of the necessary measuring and test equipment including accuracy and calibration due dates as applicable

5.1.2 Examples of the activities subject to inspection include:

5.1.2.1 Special processes

5.1.2.2 Modifications

5.1.2.3 Receipt of materials, parts and components

5.1.2.4 Maintenance

5.1.2.5 Packaging, shipping and handling of radioactive waste material

5.1.3 When inspections associated with normal operations of the plant are performed by individuals other than those who performed or directly supervised the work, but are within the same group, the following controls apply:

5.1.3.1 The quality of the work can be demonstrated through a functional test when the activity involves breaching a pressure-retaining item.

5.1.3.2 The qualification criteria for inspection personnel are reviewed and found acceptable by the QA organization prior to initiating the inspection.

5.1.4 Process Monitoring

5.1.4.1 Process monitoring of work activities, equipment, and personnel shall be utilized as a control method when direct inspection of processed items is impossible or impracticable. Monitoring shall be performed to verify that quality-related activities are performed in accordance with documented instructions, procedures, drawings, and specifications.

5.1.5 Supporting Inspections

5.1.5.1 Both inspections and process monitoring shall be used when control of the activity is inadequate without both. The need for such monitoring shall be determined prior to initiation of the activity, if possible, or may be stipulated later if circumstances warrant.

5.1.6 Mandatory Inspections

5.1.6.1 Mandatory inspection holdpoints are established by the organization performing the work, Engineering, or by QA/QC personnel. Witnessing or inspection of hold points by QC shall be accomplished before work can proceed. Plant procedures and work instructions shall be reviewed by QA/QC personnel for concurrence with the established mandatory hold points.

5.1.6.2 QC also establishes notification points for the purpose of being informed of upcoming activities (e.g., prior to the start of a test) where a mandatory holdpoint may not be appropriate, but QC involvement may be desired.

5.1.7 Inspection results are reviewed and approved by qualified personnel to verify that the inspection requirements were satisfied.

5.1.8 Inspection activities shall be documented and as a minimum, shall identify the following:

5.1.8.1 Item inspected

5.1.8.2 Date of inspection

5.1.8.3 Inspector

5.1.8.4 Type of observation/inspection

5.1.8.5 Results and acceptability

5.1.8.6 Reference to information on action taken in connection with nonconformances

5.1.8.7 Test equipment used

5.1.9 Inspection requirements for modifications, repairs, and replacements shall be equivalent to the inspection requirements of the original design or approved alternatives.

5.1.10 Procedures shall be reviewed by personnel sufficiently knowledgeable in the requirements of the activity to ensure that the necessary hold points are designated.

5.1.11 Measuring and test equipment utilized as part of the inspection process shall be controlled by the requirements of Reference 4.2.

5.1.12 Acceptance

.12.1 Procedures shall be established for processing, evaluation, and final acceptance of inspection data. The qualified inspector performing the inspection is responsible for the immediate evaluation and acceptability of inspection results. Designated individuals or groups are responsible for reviewing and evaluating inspection results including recording of data, computations, drawings, or specification interpretations.

5.2 Nondestructive Examination (NDE)

5.2.1 NDE shall be performed in accordance with procedures which address the applicable requirements of ASME, ASTM, or other appropriate codes and standards.

5.2.2 The applicable requirements of Section 5.1, Inspection, shall apply to the performance, evaluation, and documentation of NDE results.

5.3 Inspection Status

5.3.1 The status of individual item inspections shall be identifiable through the use of stamps, tags, labels, routing cards or documentation traceable to the item.

6.0 DOCUMENTATION

6.1 Procedures which are generated as required by this chapter shall identify the records which are required to implement and document those activities. The records shall be controlled in accordance with Reference 4.3.

7.0 ATTACHMENTS

7.1 None

1.0 PURPOSE

1.1 The purpose of this chapter is to establish requirements for testing of quality-related structures, systems, and components.

2.0 SCOPE

2.1 This chapter is applicable to the testing of quality-related structures, systems, and components during the operational phases to demonstrate compliance with design and operational requirements.

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 South Texas Project Electric Generating Station (STPEGS) Technical Specifications

4.2 OQAP Chapter 4.0, Qualification, Training and Certification of Personnel

4.3 OQAP Chapter 12.0, Instrument and Calibration Control

4.4 OQAP Chapter 14.0, Records Control

5.0 REQUIREMENTS

5.1 The test programs shall be developed to demonstrate that plant structures, systems, and components will perform in accordance with design requirements.

5.1.1 Tests performed following maintenance or modification shall satisfy the original design or test requirements or an engineering approved alternative.

5.1.2 Test programs include operability tests, surveillance tests, and equipment tests, including those associated with plant maintenance, modification, procedure changes, and the acceptance of purchased material.

5.2 Procedures shall be developed to control tests of quality-related structures, systems, and components to assure satisfactory service upon completion of maintenance or modifications.

5.3 Procedures shall be developed to schedule and control surveillance testing of those items and systems required by Reference 4.1.

5.4 Test procedures shall provide, as necessary, for the following:

5.4.1 The requirements and acceptance limits contained in applicable licensing, design and procurement documents.

5.4.2 Instructions for performing the test, including prerequisites, test sequence, and caution or safety notes, and shall be in sufficient detail so that the test operator's interpretation is not required.

5.4.3 Calibrated test equipment with the accuracy required for performing the activity.

5.4.4 Provisions for documenting or recording test data and results

5.4.5 Acceptance criteria.

5.4.6 Inspection hold and/or notification points for inspection/witness by Nuclear Assurance.

5.4.7 Provisions for assuring the test prerequisites have been met.

5.4.8 Provisions for control of jumpers, lifted leads, blank flanges, strainers or safety tags, etc.

5.4.9 Provisions for returning a system to normal configuration upon completion of the test.

5.4.10 Environmental conditions shall be noted in test procedures, as appropriate.

5.5 Measuring and Test equipment (M&TE) used during test activities shall be controlled in accordance with Reference 4.3.

5.6 Procedures shall be developed to ensure that test data and results are reviewed by a qualified individual(s) and are evaluated for compliance with applicable test acceptance criteria.

5.7 Personnel performing test activities, including developing and implementing test procedures and evaluating and reporting test results, shall be qualified in accordance with Reference 4.2.

5.8 Administrative procedures shall provide for identification of structure, system, and component test status through the use of status indicators (i.e., clearance tags, markings, records) to assure only items that have passed required tests are used or operated.

5.9 Test records, where applicable, shall include:

5.9.1 Identification of items or systems tested.

5.9.2 Date of test.

5.9.3 Tester and data recorder identification.

5.9.4 Type of observation/test.

5.9.5 Test results and acceptability.

5.9.6 References to nonconformances and action taken.

5.9.7 Person reviewing and evaluating test results.

5.9.8 Test equipment used.

6.0 DOCUMENTATION

6.1 Procedures which are generated as required by this chapter shall identify the records which are required to implement and document those activities. The records shall be controlled in accordance with Reference 4.4.

7.0 ATTACHMENTS

7.1 None

1.0 PURPOSE

1.1 The purpose of this chapter is to establish requirements to ensure measuring and test equipment (M&TE), and installed instrument and control devices used in quality-related activities or structures, systems and components are properly controlled, maintained, and calibrated at the South Texas Project Electric Generating Station (STPEGS).

2.0 SCOPE

2.1 This chapter is applicable to equipment used to measure, test, evaluate, and inspect quality-related items and systems during operational phases and to installed instrument and control devices used to measure, record, and control quality-related plant operations.

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 OQAP Chapter 4.0, Qualification, Training and Certification of Personnel

4.2 OQAP Chapter 14.0, Records Control

5.0 REQUIREMENTS

5.1 Procedures shall be developed to establish the method and interval of calibration for installed instrument and control devices. The calibration method and interval shall be based on the type of equipment, stability, and reliability characteristics, required accuracies and other conditions affecting calibration.

5.2 Procedures shall be developed for the control and calibration of measuring and test equipment at prescribed intervals or prior to use. Reference standards having known valid relationships to national standards shall be used. Each organization shall be responsible for assuring that the measuring and test equipment (M&TE) it uses has been calibrated to the

accuracy required for its intended use.

5.3 Reference standards shall have an uncertainty (error) requirement of no more than 1/4 of the tolerance of the equipment or device being calibrated. When commercial standards with the required uncertainty error are not available, a reference standard may be used if the standard error tolerance is equal to or less than the error tolerance of the equipment being calibrated. The basis of this acceptance shall be documented and authorized by responsible management. In those cases where a reference standard is not traceable to a national standard because a national standard does not exist, the basis for calibration shall be documented.

5.4 Measuring and test equipment shall be uniquely identified. The records directly traceable to the equipment shall indicate the date of calibration, the identity of the person who calibrated the equipment, the results of the calibration and the next calibration due date.

5.4.1 A calibration label will be attached to measuring and test equipment to indicate the calibration due date. If this label interferes with the equipment function or is impractical, the calibration label will be attached to the equipment case.

5.5 Measures shall be established to trace the use of each item of measuring and test equipment. When measuring and test equipment is found out of calibration, an evaluation shall be made and documented for the validity of previous inspection and test results and for the acceptability of items previously inspected or tested.

5.6 Measuring and test equipment, installed instruments and control devices suspected or known to be in error or defective shall be immediately removed from service or properly tagged to indicate the error or defect.

5.7 Measuring and test equipment, installed instruments and control devices consistently found to be out of calibration shall be repaired or replaced.

5.8 Measuring and test equipment shall be handled and stored commensurate with their environmental and sensitivity requirements.

5.9 Measuring and test equipment which becomes lost shall be considered out of tolerance and upon its recovery, it shall be recalibrated.

5.10 Personnel calibrating measuring and test equipment and installed instrument and control devices shall be qualified per Reference 4.1.

5.11 Contractors and vendors, who provide their own measuring and test equipment, shall have a program that meets the requirements of this chapter.

5.12 This chapter does not require the calibration and control of rulers, tape measures, levels and other such devices if normal commercial practices provide adequate accuracy.

5.13 Inspection, test, maintenance, repair, and other procedures shall include provisions to assure that M&TE used in activities affecting quality are the proper range, type and accuracy.

5.14 Measuring and test equipment, utilized for chemical and radiological control purposes are not required to meet the requirements of this chapter, provided laboratory control practices are implemented to ensure accuracy of analyses.

6.0 DOCUMENTATION

6.1 Procedures which are generated as required by this chapter shall identify the records which are required to implement and document those activities. The records shall be controlled in accordance with Reference 4.2.

7.0 ATTACHMENTS

7.1 None

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1.0 PURPOSE

1.1 The purpose of this chapter is to establish requirements and responsibilities for the identification, documentation, evaluation, resolution, control and reporting of deficiencies.

2.0 SCOPE

2.1 This chapter applies to deficiencies discovered in items, services and activities under the scope of the Operations Quality Assurance Plan and the reporting of items to the Nuclear Regulatory Commission (NRC) in accordance with Title 10 Code of Federal Regulations.

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 10CFR50, Appendix B

4.2 10CFR21, Reporting of Defects and Noncompliance

4.3 10CFR50.72, Immediate Notification Requirements for Operating Nuclear Power Reactors

4.4 10CFR50.73, Licensee Event Report System

4.5 South Texas Project Electric Generating Station (STPEGS) Technical Specifications

4.6 OQAP Chapter 14.0, Records Control

5.0 REQUIREMENTS

5.1 All personnel working under the jurisdiction of the Operations Quality Assurance Plan are responsible for reporting identified deficiencies to appropriate management for resolution in accordance with approved procedures.

5.2 Procedures shall be developed for the control of items, services or activities which do not conform to

established requirements. These procedures shall provide for the following:

5.2.1 Identification and documentation of the deficient condition.

5.2.2 Identification of the requirements, source, or reference information being violated.

5.2.3 Notification of responsible management.

5.2.4 Control of the deficient item or activity by tagging, segregation, administrative controls, or other appropriate means to prevent inadvertent installation, use, or continuation of the deficient activity and removal of such controls when the item is returned to service or availability.

5.2.5 Resolution and/or disposition approved by authorized personnel prior to closing out the nonconformance documentation and restoring the item to normal service.

5.2.5.1 Material nonconformance disposition categories are:

- o "Use-as-is"
- o "Reject"
- o "Rework" in accordance with documented procedures
- o "Repair" in accordance with documented procedures

5.2.5.2 "Use-as-is" and "repair" disposition of nonconforming items shall be approved and justified in writing by Engineering.

5.2.5.3 Evaluations shall be performed to ascertain recurrence control measures.

5.2.6 Documentation of the corrective action taken.

5.2.7 Review and/or verification of the corrective action by Nuclear Assurance, as appropriate.

5.2.8 Reinspection of repaired and reworked items shall be to criteria as stringent as those applied to the original work. Reinspection results are documented on inspection reports or other work process control documents.

5.2.9 Installation of nonconforming material, parts, and components may be performed after the effect of their installation has been evaluated and the installation approved by Plant Management and Engineering. Nonconforming items which may not be installed are those which, because of their makeup and intended use, cannot be repaired or reworked after being installed and those which, if installed and later removed, would degrade that system, structure, or component. Installed nonconforming items are not energized, used, or placed in service until the action required by the disposition, including reinspection, has been completed or an engineering evaluation has been prepared to justify the intended use of the nonconforming item.

5.2.10 Disputes over corrective action are normally resolved by Plant Management. Should this resolution not be satisfactory, the parties may elevate the matter to higher management for resolution.

5.3 Procedures shall provide the following administrative controls of deficiencies:

5.3.1 Unique identification and numbering of deficiencies.

5.3.2 Preparing and maintaining status reporting of deficiencies.

5.3.3 Actions to be taken to assure timely corrective action on deficiencies.

5.4 Procedures which identify and track deficiencies shall require management review of each report to determine if the condition is significant. For significant conditions adverse to quality, the cause of the condition and the corrective action taken to preclude repetition shall be documented and reported to appropriate levels of management.

5.5 Measures shall be established for review and evaluation of deficiencies for reportability to the NRC as required by Reference 4.1, 4.2, 4.3, and 4.4, as appropriate.

5.6 The authority to stop work has been assigned to the General Manager, Nuclear Assurance for any activity being performed by company personnel or contractors which do not conform to established requirements.

5.7 Measures shall be established for the evaluation and trending of plant deficiencies. The results of these reviews and analyses are reported to the affected organization and executive management, and are audited by the QA organization on a biannual basis. Significant adverse trends shall be handled in accordance with this chapter.

6.0 DOCUMENTATION

6.1 Procedures which are generated as required by this chapter shall identify the records which are required to implement and document those activities. The records shall be controlled in accordance with Reference 4.6.

7.0 ATTACHMENTS

7.1 None

1.0 PURPOSE

1.1 The purpose of this chapter is to describe the requirements and the responsibilities for the collection, storage, retrieval, and maintenance of quality-related records.

2.0 SCOPE

2.1 This chapter is applicable to those quality-related records acquired and developed as a result of, or in support of, the South Texas Project Electric Generating Station (STPEGS).

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 ANSI N45.2.9/Reg. Guide 1.88, Requirements for the Collection, Storage, and Maintenance of Nuclear Power Plant Quality Assurance Records.

5.0 REQUIREMENTS

5.1 Records shall be collected, filed, stored, maintained, and dispositioned in accordance with Reference 4.1.

5.1.1 Records include, but are not limited to: plant history; operating logs; records of principal maintenance and modification activities; reportable occurrences and other records required by the Technical Specifications; results of reviews, inspections, tests, audits, and material analyses; monitoring of work performance; qualification of personnel, procedures, and equipment; drawings, specifications, procurement documents, warehousing documents, calibration procedures and calibration reports; and nonconformance and corrective action reports.

5.1.1.1 The records control program provides evidence that activities affecting quality are defined and implemented, and that inspection and test documents contain a description of the type of observation; the identification of inspector or data recorder; the date and inspection or test results; acceptability of the results; and reference any action taken in documenting or resolving any nonconformances.

5.2 Record storage facilities shall meet the requirements of Reference 4.1.

5.3 A list of record types and the classification of these record types as to retention period shall be maintained.

5.4 An index of stored records shall be maintained. The index shall include retention period and location of the records within the storage area. The STPEGS DTL (an electronic data base) is used as a record index/checklist. If a conflict of retention times exists between regulatory, standard, or technical specification requirements, the longer retention period shall be specified.

5.5 Records indexing systems shall provide sufficient cross-reference between the record and items or activities to which the record applies.

5.6 The receipt, processing, and handling of records shall be controlled by procedures.

5.7 To ensure that QA records are identifiable and retrievable, a computerized records management system has been developed. This system provides for a method to identify the document(s)/record(s) or document/record package(s) for retrieval purposes. The system also provides the ability to cross-reference the identification with other possible identifiers of the document (i.e., specification number, purchase order number, equipment number). QA records may be stored on

photographic, optical, or electronic media; the file locations of documents are available from the computer.

5.8 Controlled access to the record storage facility shall be established.

5.9 Records may be corrected/supplemented in accordance with procedures which provide for appropriate review or approval by the originating or other authorized organization. Corrections/supplements shall include the date and identification of the person making the correction/supplement, shall be in ink and be entered in a manner such that the original information is not obliterated.

5.10 Organizations generating records are responsible for ensuring activities are documented accurately, legibly, and with sufficient traceability; and submitting designated documents for independent review prior to entering into the records system in accordance with appropriate procedures.

6.0 DOCUMENTATION

6.1 Procedures which are generated as required by this chapter shall identify the records which are required to implement and document those activities. The records shall be controlled in accordance with this chapter.

7.0 ATTACHMENTS

7.1 None

1.0 PURPOSE

1.1 The purpose of this chapter is to establish requirements for a system of audits and surveillances of quality assurance programs for the South Texas Project Electric Generating Station (STPEGS).

2.0 SCOPE

2.1 This chapter provides for implementing a program of internal audits and site surveillances which include preparation, performance, reporting, and follow-up to ensure the requirements of the Operations Quality Assurance Program are being properly implemented.

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 ANSI N45.2.12/Reg. Guide 1.144, Auditing of Quality Assurance Programs for Nuclear Power Plants

4.2 OQAP Chapter 4.0, Qualification, Training and Certification of Personnel

4.3 OQAP Chapter 7.0, Procurement

4.4 OQAP Chapter 13.0, Deficiency Control

4.5 OQAP Chapter 14.0, Records Control

5.0 REQUIREMENTS

5.1 A comprehensive audit program in compliance with Reference 4.1 shall be established and implemented by HL&P to verify internal and external quality activity compliance with the Operations QA Program. The audit program shall assure that applicable elements of the program have been developed, documented, and are effectively implemented and shall provide for reporting and reviewing audit results by appropriate levels of management. The following areas are included in the audit program:

5.1.1 Operation, maintenance, and modifications

5.1.2 Preparation, review, approval, and control of designs, specifications, procurement documents, instructions, procedures, and drawings

5.1.3 Material and special process control

5.1.4 Indoctrination and training programs

5.1.5 Implementation of operating and test procedures

5.1.6 Calibration of measuring and test equipment

5.1.7 Corrective action and nonconformance control

5.1.8 Performance of the plant staff, including training records

5.1.9 Plant inspection activities

5.2 Qualified personnel assigned auditing responsibilities shall be independent of any direct responsibility for the performance of the activities which they audit; shall be experienced or trained commensurate with the scope and complexity of the activities to be audited; and shall be qualified in accordance with the requirements of Reference 4.2.

5.2.1 An audit team consists of one (or more) qualified person(s). A qualified lead auditor shall be appointed as the audit team leader. The audit team leader shall be responsible for the written plans, checklists, team orientation, audit notification, preaudit conference, audit performance, post-audit conference, reporting, and follow-up activity to assure corrective action. The audit team leader shall promptly report conditions requiring immediate corrective action to the appropriate management of the audited organization. Other audit findings will be identified to the audited organization at the post-audit conference. Formal audit reports shall be prepared and submitted to the audited organization within 30 days after the post-

audit conference.

5.2.2 Other personnel may assist in the conduct of audits, such as technical specialists, management representatives, or auditors in training. Such personnel selected for auditing assignments shall have training or experience commensurate with the scope, complexity, or special nature of the activities to be audited. Personnel performing audits shall have no direct responsibility for the area audited.

5.3 An audit plan, approved by Nuclear Assurance Management, shall be issued annually to include:

5.3.1 Activities/organizations to be audited.

5.3.2 Time frame in which the audit will be conducted.

5.3.3 Required frequency for auditing the activity (annual, biannual, etc.).

5.4 Internal Audits

5.4.1 Internal audits shall be conducted by QA and shall be performed with a frequency commensurate with their safety significance. An audit of all safety-related activities shall be completed in accordance with formal audit schedules within a period of two years. Supplementary to the biennial requirement to audit all safety-related activities, the following program elements shall be audited at the indicated frequencies:

5.4.1.1 The results of actions taken to correct deficiencies that affect nuclear safety and occur in facility equipment, structures, systems, or method of operation - at least once every six months.

5.4.1.2 The conformance of facility operation to provisions contained within the Technical Specifications and

applicable license conditions - at least once every twelve months.

5.4.1.3 The performance, training, and qualifications of the facility staff including training records and supervisory evaluations - at least once every twelve months.

5.4.2 Review of the audit program shall be performed at least semiannually by the independent review body or by a management representative to verify that audits are being accomplished in accordance with the requirements of the QA Program.

5.4.3 Audit results shall be reviewed periodically by the QA Organization for quality trends and overall audit program effectiveness. The results of these reviews shall be reported to appropriate management in periodic summary reports.

5.4.4 Audited organizations are responsible for providing timely corrective action including action to prevent recurrence for programmatic problems identified by an audit or surveillance.

5.5 Supplemental audits shall be conducted when:

5.5.1 Significant changes are made to the quality assurance program.

5.5.2 It is necessary to determine the root cause of problem areas which may impact the effectiveness of the quality assurance program.

5.5.3 A systematic, independent assessment of program effectiveness is necessary.

5.5.4 Requested by appropriate management.

5.6 Audit implementation shall include the following:

5.6.1 Written notification to the audited organization of the scheduled audit, if an announced audit.

5.6.2 Development of an individual audit plan/scope.

5.6.2.1 The audit plan and any necessary reference documents shall be available to the audit team members.

5.6.3 A preaudit and postaudit conference with responsible organizational management.

5.6.4 Use of a checklist or procedure as a guide during the performance of the audit.

5.6.5 Identifying and documenting audit deficiencies.

5.6.6 Providing a written report of the audit within thirty days after completion of the audit to responsible management. The audit report shall address those items required by Reference 4.1.

5.6.7 Audited organizations provide timely and thorough corrective action and recurrence control to discrepancies identified during the audit. In the event that corrective action cannot be completed within thirty days, the audited organization's response shall include a scheduled date for the corrective action. Earlier dates for corrective action may be established if circumstances dictate.

5.6.8 Evaluation of corrective action for deficiencies and follow-up verification as appropriate.

5.7 Assessments are conducted annually to assess HL&P's implementation of the Operations Quality Assurance Program. These assessments will be conducted by organizations independent of the activities performed to assure the HL&P OQAP is being properly implemented. The Nuclear Safety Review Board shall define the scope of the assessment and determine the schedule. The

results of these assessments will be transmitted to the Group Vice President, Nuclear.

5.8 Procedures shall be developed to control Nuclear Assurance site surveillance activities. Site surveillances shall be used to observe and verify that quality-related activities are accomplished in accordance with prescribed procedures.

5.9 A surveillance schedule shall be developed to ensure adequate coverage of quality-related activities.

5.9.1 The frequency of site surveillances is based upon the complexity of the activity, importance of the activity, and magnitude of discrepancies noted during previous audits or surveillances.

5.9.2 Unscheduled site surveillances may be performed to accommodate changes in plant conditions or systems.

5.10 Scheduled site surveillances are performed using a surveillance checklist. The surveillance checklist shall be prepared using applicable procedures, specifications, codes, and regulatory requirements for source requirements.

5.11 Site surveillance results are documented, and a summary of surveillances and evaluation of surveillance findings shall be prepared and transmitted to responsible management.

5.12 Nonconforming equipment, components, parts, materials, activities or documentation identified during an audit or site surveillance shall be documented in accordance with Reference 4.5.

5.13 Personnel performing surveillances shall be trained and qualified in accordance with Reference 4.3.

6.0 DOCUMENTATION

6.1 Procedures which are generated as required by this chapter shall identify the records which are required to implement and document those activities. The records shall be controlled in accordance with Reference 4.7.

7.0 ATTACHMENTS

7.1 None

1.0 PURPOSE

1.1 The purpose of this chapter is to describe the requirements and responsibilities for the design, procurement, control and physical accounting of nuclear fuel for the South Texas Project Electric Generating Station (STPEGS).

2.0 SCOPE

2.1 This chapter describes the fabricated nuclear fuel activities within the scope of the Operations Quality Assurance Plan (OQAP).

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 OQAP Chapter 6.0, Design and Modification Control

4.2 OQAP Chapter 7.0, Procurement

4.3 OQAP Chapter 9.0, Control of Material

4.4 OQAP Chapter 13.0, Deficiency Control

4.5 OQAP Chapter 14.0, Records Control

4.6 OQAP Chapter 15.0, Quality Assurance Audit and Surveillance

5.0 RESPONSIBILITIES

5.1 The Vice President, Nuclear Generation is responsible for the receipt, onsite storage, handling, and physical accountability of nuclear fuel assemblies, monitoring, and use of nuclear fuel within core performance guidelines and safety analyses, providing for the receipt inspection of nuclear fuel assemblies, and preparation of spent fuel for shipment.

5.2 The Vice President, Nuclear Engineering is responsible for assuring that nuclear fuel management activities,

which include procurement, fuel design and analyses, reactor core performance guidelines and safety analyses in support of core operations, special nuclear materials status report preparation, and licensing new and reload fuel with the Nuclear Regulatory Commission, are conducted in accordance with this chapter.

5.3 The General Manager, Nuclear Assurance is responsible for providing quality assurance support for fuel procurement, receipt and installation of fuel assemblies and verification that requirements are being implemented thorough quality assurance surveillance and audits.

6.0 REQUIREMENTS

6.1 Application of quality assurance requirements to nuclear fuel management activities shall be accomplished in accordance with approved procedures that implement the following elements of the Operations Quality Assurance Plan.

6.1.1 Deficiency Control

6.1.1.1 Nonconforming items related to the receipt of nuclear fuel assemblies shall be documented and controlled in accordance with Reference 4.4.

6.1.2 Auditing and Surveillance Activities

6.1.2.1 The activities identified in this chapter shall be audited in accordance with the Reference 4.6.

6.1.3 Collection, Storage, and Maintenance of Quality Assurance Records

6.1.3.1 The appropriate quality assurance records applicable to nuclear fuel shall be identified, administered, and stored in accordance with the applicable requirements of Reference 4.5.

6.1.4 Control of Modification and Design Activities

6.1.4.1 Fuel and core design and design verification activities shall be accomplished in accordance with the applicable requirements described in Reference 4.1.

6.1.5 Procurement Control

6.1.5.1 Procurement activities related to fabricated nuclear fuel assemblies shall be accomplished in accordance with the requirements of Reference 4.2.

6.1.6 Material Control

6.1.6.1 The handling and storage of nuclear fuel assemblies and associated equipment received at the STPEGS shall be performed in accordance with the applicable requirements of Reference 4.3. Technical assistance, including necessary instructions for handling, preservation, storage and other special controls, shall be provided by the supplier of nuclear fuel assemblies in accordance with the fuel contract.

6.2 Engineering Support Activities

6.2.1 The following fuel management activities shall be accomplished in accordance with approved procedures which provide the necessary interface controls:

6.2.1.1 Fuel Design and Analysis

6.2.1.2 Core-related Safety and Transient Analysis

6.2.1.3 Fuel Performance Analysis

7.0 DOCUMENTATION

7.1 Procedures which are generated as required by this chapter shall identify the records which are required to implement and document those activities. The records shall be controlled in accordance with Reference 4.5.

8.0 ATTACHMENTS

8.1 None

1.0 PURPOSE

1.1 The purpose of this chapter is to prescribe requirements and responsibilities for repair and replacement activities governed by ASME Boiler and Pressure Vessel Code, Section XI, Rules for Inservice Inspection of Nuclear Power Plant Components.

2.0 SCOPE

2.1 This chapter is applicable to examination, repair and replacement activities performed on ASME Class 1, 2, and 3 components.

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 ASME Code Section XI, Rules for Inservice Inspection of Nuclear Power Plant Components

4.2 OQAP Chapter 14.0, Records Control

5.0 RESPONSIBILITIES

5.1 The Vice President, Nuclear Generation is responsible for the planning, management, and control of the performance of repairs, replacements and tests.

5.2 The Vice President, Nuclear Engineering is responsible for developing the repair and replacement program including specifications for design, fabrication, testing, and examination.

5.3 The General Manager, Nuclear Assurance is responsible for providing qualified personnel to perform examinations of component repairs and replacements and verifying the requirements of this chapter are implemented.

6.0 REQUIREMENTS

6.1 Repair and replacement activities required by Reference 4.1 shall be conducted in accordance with written and approved procedures or instructions.

Areas to be addressed include:

6.1.1 Accessibility for component examination, repair or replacement.

6.1.2 Identificaton of system boundaries and code class for each component.

6.1.3 The method for interfacing with the authorized nuclear inspection agency.

6.1.4 Qualification of nondestructive examination methods.

6.1.5 Qualification requirements for nondestructive examination personnel.

6.1.6 Qualification requirements for welders and welding operators.

6.1.7 Qualification of welding procedures.

6.1.8 Conduct of examinations and inspections.

6.1.9 A component repair or replacement package including installation and test procedures and quality assurance requirements.

6.1.10 Conduct of system pressure and functional tests.

6.1.11 A component replacement package including specifications for design, fabrication and examination as applicable for the replacements.

6.1.12 Preparation, submittal and retention of required records and reports.

7.0 DOCUMENTATION

7.1 Procedures which are generated as required by this chapter shall identify the records which are required to implement and document those activities. The records shall be controlled in accordance with Reference 4.2.

8.0 ATTACHMENTS

8.1 None

1.0 PURPOSE

1.1 The purpose of this chapter is to prescribe requirements and responsibilities for the inservice examination and testing programs at the South Texas Project Electric Generating Station (STPEGS).

2.0 SCOPE

2.1 This chapter applies to the inservice examination and testing of Class 1, 2 and 3 pressure retaining components and component supports as specified in Section XI of the ASME Boiler and Pressure Vessel Code and additional ISI commitments as specified in the UFSAR.

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 ASME Code Section XI, Rules for Inservice Inspection of Nuclear Power Plant Components

4.2 10CFR50.55a, Codes and Standards

4.3 OQAP Chapter 4.0, Qualification, Training and Certification of Personnel

4.4 OQAP Chapter 14.0, Records Control

5.0 RESPONSIBILITIES

5.1 The Vice President, Nuclear Engineering is responsible for developing and implementing the inservice examination and testing programs as required by ASME Code Section XI.

5.2 The General Manager, Nuclear Assurance is responsible for verifying the implementation of the inservice examination and testing programs through audits and surveillances, interfacing with the Authorized Inspection Agency, and performance of nondestructive examinations as requested by Nuclear Engineering.

6.0 REQUIREMENTS

6.1 The inservice examination and testing programs consist of plans and implementing procedures for the examination and testing of Class 1, 2, and 3 pressure retaining components and their supports and the inservice testing of Class 1, 2, and 3 pumps and valves.

6.1.1 Examination and Testing of Pressure Retaining Components and Component Supports

6.1.1.1 Nuclear Engineering shall develop plans for examination and testing of Class 1, 2, and 3 components and their supports. These plans shall prescribe the requirements for nondestructive examinations and tests and the schedule for their performance.

6.1.1.2 Inspection plans (e.g., specifications, vendor documents, etc.) shall be developed which identify the nature and extent of examination and testing activities including the acceptance criteria which must be met.

6.1.1.3 Procedures shall be developed which provide measures for the performance of activities identified in the plans.

6.1.2 Inservice Testing of Pumps and Valves and System Pressure Testing

6.1.2.1 Nuclear Engineering shall develop the Inservice Testing Program for pumps and valves and the System Pressure Testing Program. These programs shall include the requirements and the schedule for their performance.

6.1.3 Examination and test results shall be evaluated by specified personnel and verified by the Authorized Nuclear Inservice Inspector.

6.1.4 Coordination of involved HL&P departments, including the use of contractors for the performance, documentation and evaluation of inservice inspection activities, shall be controlled by approved procedures.

6.1.5 When contractors are used to perform activities within the scope of this section, their quality assurance program shall be approved by HL&P Nuclear Assurance.

6.1.6 Exceptions to code examination and testing requirements shall be documented in accordance with Reference 4.2.

6.1.7 Personnel performing examinations and tests shall be qualified as required by Reference 4.1 and Reference 4.3.

6.1.8 Plans and reports for inservice examinations and tests shall be submitted to the appropriate regulatory and enforcement authorities as required by Section XI.

7.0 DOCUMENTATION

7.1 Procedures which are generated as required by this chapter shall identify the records which are required to implement and document those activities. The records shall be controlled in accordance with Reference 4.4.

8.0 ATTACHMENTS

8.1 None