SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION OPERATIONS QUALITY ASSURANCE PLAN APPROVAL	NUMBER Approval	REV. NO. 14
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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 provided 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 or technical requirements manual.

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.

Assessment/Evaluation - Systematic examination of plant systems/components, various plant activities or incidents to evaluate the effectiveness of work practices and/or management controls (i.e., self-assessments, independent assessments, and combinations of the two).

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). An audit may include performance monitoring as an input to satisfy a specific portion or aspect of an audit, but should not totally replace an audit.

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 structure, system, or component, or part thereof that affects its safety function that was not designed and manufactured as a basic component. Commercial grade items do not include items where the design and manufacturing process require in-process inspections and verifications to ensure that defects or failures to comply are identified and corrected (i.e., one or more critical characteristics of the item cannot be verified)

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 term's 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.

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

Critical Attribute - An attribute or capability of a component to support its associated system's critical function.

Critical Characteristics - Important design, material and performance characteristics of a commercial grade item that, once verified, will provide reasonable assurance that the item will perform its intended safety function.

Dedication - An acceptance process undertaken to provide reasonable assurance that a commercial grade item to be used as a basic component will perform its intended safety function

and, in this respect, is deemed equivalent to an item designed and manufactured under a 10CFR50, Appendix B, quality assurance program. This assurance is achieved by identifying the critical characteristics of the item and verifying their acceptability by inspections, tests, or analyses performed by the purchaser or third-party dedicating entity after delivery, supplemented as necessary by one or more of the following: commercial grade surveys; product inspections or witness at holdpoints at the manufacturer's facility, and analysis of historical records for acceptable performance. In all cases, the dedication process must be conducted in accordance with the applicable provisions of 10CFR50, Appendix B. The process is considered complete when the item is designated for use as a basic component.

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 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 - Examination or measurement to verify whether an item or activity conforms to specific 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 applicable quality oversight 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.

Review - A deliberately critical examination, including observation of plant operation, evaluation of audit results, procedures, certain contemplated actions, and after-the-fact investigations of abnormal conditions.

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/Quality Performance Monitoring - 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.

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 (STP).

2.0 SCOPE

2.1 STP Nuclear Operating Company (STPNOC), as licensee, has the Quality responsibility for design, engineering, procurement, fabrication, modification, maintenance, repair, in-service inspection, refueling, testing, and operation of the STP.

2.2 The requirements of this chapter are applicable for structures, systems, and components designated as "Full", "Targeted", or "Basic".

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 None

5.0 RESPONSIBILITIES

5.1 The STPNOC is comprised of Generation, Engineering & Technical Services, Business Services, and Safety and Quality Concerns Program. The senior management of these groups report to the President and Chief Executive Officer.

5.1.1 The President and Chief Executive Officer has overall responsibility for the implementation of the Operations Quality Assurance Program and approving the Operations Quality Assurance Plan (OQAP) and revisions thereto.

5.1.2 The Vice President, Generation is responsible for implementing quality program requirements applicable to staffing STP with qualified personnel and acquiring and coordinating the assistance of internal and external organizations for the following functions including: plant management, generation support, outage and installation, plant projects & programs, and metrology & radiological laboratories. The senior management of these functions report to the Vice President, Generation.

5.1.2.1 The Plant Manager has prime responsibility for the safe operations of the units. The plant staff, under the direction of the Plant Management, develop detailed procedures and instructions for testing, operation, modification, and maintenance of the STP.

5.1.3 The Vice President, Engineering & Technical Services (E&TS) is responsible for implementing quality program requirements applicable to the following functions: design engineering and control, systems engineering, fuels & analysis, engineering support, quality & licensing, operating experience, risk management & industry relations, plant protection, and training functions. The senior management of these functions report to the Vice President, E&TS.

The Vice President, E&TS is responsible for the development, maintenance, and independent verification of implementation of the STP Quality 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 Vice President, E&TS is responsible for implementing quality program requirements applicable to corrective action, licensing, and independent oversight activities, and administration of the Nuclear Safety Review Board (NSRB).

The Vice President, E&TS 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 Quality activities without undue pressure of cost or schedule.

5.1.3.1 The NSRB administratively reports to the senior management of the Risk Management & Industry Relations function. The NSRB functionally reports directly to and advises the President and Chief Executive Officer.

5.1.3.2 The senior management of the Quality & Licensing function is responsible for independent oversight activities, including audits, independent assessments, evaluations, surveillances, performance monitoring, inspections and independent oversight of NDE examinations.

5.1.3.3 The senior management of the Quality & Licensing function, at his discretion, reports directly to the President and Chief Executive Officer. During performance of independent oversight of activities relating to Licensing, the management of the Plant Support function, at his discretion, may report to the President and Chief Executive Officer.

5.1.3.4 The senior management of the Quality & Licensing function has the authority to stop work for cause. This authority has been granted by the President and Chief Executive Officer. The Quality organization, including the inspection staff, is based upon the anticipated Quality involvement in operations, modification, and maintenance activities.

5.1.3.5 The senior management of the Risk Management & Industry Relations function is responsible for activities related to the Comprehensive Risk Management Program, including oversight of Probabilistic Safety Assessment activities. The senior management of the Risk Management & Industry Relations function also serves as the Graded Quality Assurance Expert Panel chairperson.

5.1.4 The Vice President, Business Services is responsible for implementing quality program requirements applicable to the following functions: human resources, planning & controls, contracts & steam generator replacement, information systems, emergency response and communications, records management services and administration, and purchasing and material management for STP. The senior management of these functions report to the Vice President, Business Services.

5.1.5 The Manager, Safety Quality Concerns Program is responsible for implementing quality program requirements applicable to this function.

6.0 REQUIREMENTS

6.1 The fundamental responsibility for implementing quality program requirements is assigned to all personnel performing activities affecting the safe and reliable operation of the STP. These personnel and their management are responsible for implementing through approved procedures and other work documents, the quality assurance program controls described in the OQAP.

6.2 Attachment 1 depicts the organizational structure of the STP as it relates to the implementation of the Operations Quality Assurance Plan. The structure reflects the reporting alignment for key functions. Line organizational details and responsibilities are further described in STP UFSAR Chapter 13.1.

7.0 DOCUMENTATION

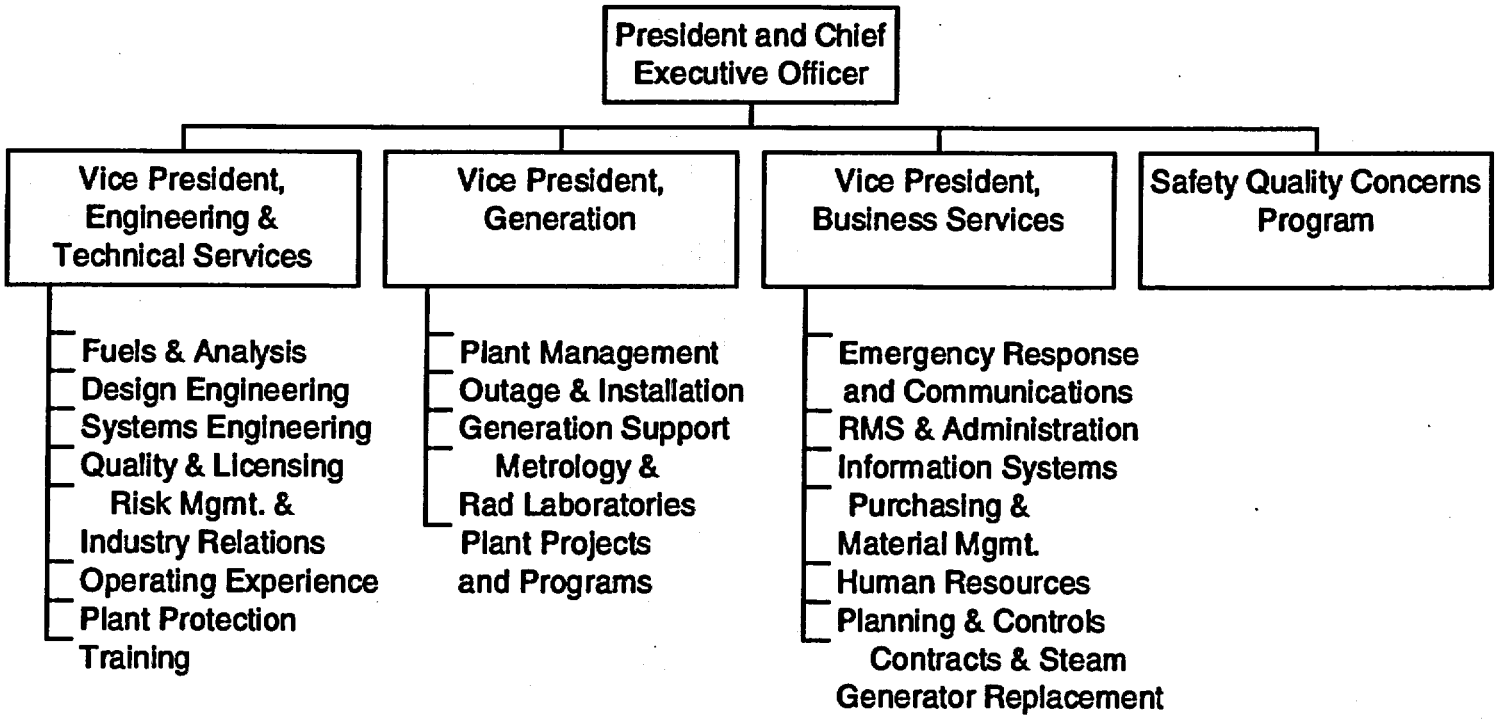
7.1 None

8.0 ATTACHMENTS

8.1 Attachment 1 - STPNOC Organization

ATTACHMENT 1

STPNOC ORGANIZATION



1.0 PURPOSE

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

2.0 SCOPE

2.1 The QA Program is implemented and controlled in accordance with the Operations Quality Assurance Plan (OQAP) and is applicable to structures, systems, and components to an extent consistent with their importance to safety, and complies with the requirements of 10CFR50, Appendix B and other program commitments as appropriate.

2.2 The QA Program will also extend, as applicable and/or determined by STP management, to programs including 10CFR71, Subpart H (except design and fabrication of NRC certified radioactive waste shipping casks), ASME Boiler and Pressure Vessel Code, Sections III and XI; and to quality-related areas as defined herein including the Fire Protection Program, Emergency Plan, Radiological Environmental Monitoring Program, Radwaste Management Program, Computer Program Verification and Control, Seismic and Environmental Equipment Qualification Programs, Radiation Protection Program, and Station Blackout (SBO) systems and equipment.

3.0 DEFINITIONS

3.1 Comprehensive Risk Management - A process by which the change in risk to station personnel, the public's health and safety are evaluated as a result of changes in commitments, processes, activities, and human and equipment performance.

3.2 Graded Quality Assurance - The process by which risk-based methodology [i.e., Probabilistic Safety Assessment (PSA)] and deterministic and performance-based information analyses are combined to establish appropriate levels of programmatic controls for SSCs and appropriate levels of first line and independent oversight needed to provide the necessary assurance that SSCs will operate safely.

3.3 Full program controls - The highest levels of controls and oversight, as prescribed in Table I to this chapter and throughout individual OQAP chapters.

3.4 Basic program controls - Good business practice/lower level of control and oversight, as prescribed in Table I to this chapter and throughout individual OQAP chapters.

3.5 Targeted program controls - Selected program controls applied to certain non-safety and/or quality related structures, systems, and components (SSCs) and site programs.

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

4.5 10CFR50.63, Loss of All Alternating Current Power

4.6 10CFR50.54(a)

5.0 REQUIREMENTS

5.1 General Program Requirements

5.1.1 The OQAP shall be prepared and maintained to prescribe the STP QA Program. The OQAP reflects the quality program policies to be implemented. The OQAP describes the organization and responsibilities for attainment of quality objectives and verification of conformance to established requirements. The QA Program shall be in effect throughout the operating life of the STP.

5.1.2 The President and Chief Executive Officer has overall responsibility for quality assurance. The Vice President, Engineering & Technical Services (E&TS), is responsible for the development and maintenance of the OQAP.

5.1.3 The operations phase of the STP includes design, procurement, fabrication, repair, testing, operation, maintenance, refueling, inspection, independent oversight, modification, and other activities as discussed Table I to this chapter and throughout the OQAP. STP and its vendors are required, as appropriate, to comply with the criteria established by 10CFR50, Section 50.55a; 10CFR50, Appendix A, General Design Criterion (GDC) 1; 10CFR50, Appendix B, and 10CFR71, Sub-Part H (except design and fabrication of NRC certified radioactive waste shipping casks).

STP will implement, as specified, the Regulatory Guides (RG) and implementing American National Standards Institute (ANSI) standards contained in Table I of this chapter.

5.1.4 STP shall maintain the OQAP as an effective and meaningful document to provide programmatic direction for the station. Changes to the OQAP shall be accomplished as prescribed by 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.

5.2 Organizational Independence

5.2.1 The reporting arrangement utilized by the Quality organization ensures that those personnel performing independent oversight have the organizational freedom to:

5.2.1.1 Identify quality problems.

5.2.1.2 Initiate, recommend, or provide solutions.

5.2.1.3 Verify implementation of solutions.

5.2.2 Personnel verifying compliance with quality requirements do not have direct responsibility for the performance of or directly supervise the activity being verified.

5.3 Graded Quality Assurance

5.3.1 Graded Quality Assurance (GQA) is fundamental to the STP QA Program. It is described in more detail in the implementing procedure for the STP Comprehensive Risk Management (CRM) Program.

5.3.2 GQA is a process by which risk-based methodology [i.e., Probabilistic Safety Assessment (PSA)], deterministic insights, and performance-based information are combined and analyzed to determine what levels of programmatic controls are needed for structures, systems, and components (SSCs) and what levels of first line and independent oversight are needed to provide assurance that items will operate safely and activities are accomplished as prescribed.

5.3.3 Selected systems are evaluated, at the component level, by a cross-discipline Expert Panel comprised of high level station management. Initial evaluations are performed by the Working Group.

5.3.4 These recommendations are developed in consideration of systems' missions, components' contribution to core damage frequency and risk achievement, components' critical attributes (needed to support system mission), performance, regulatory/QA requirements, and other deterministic considerations as prescribed in the Comprehensive Risk Management procedures.

5.3.5 Program control recommendations are developed by the Working Group and ultimately approved by the Expert Panel and forwarded to the site for implementation. Controls are implemented in three graded applications (i.e., "Full", "Basic", and "Targeted").

5.3.6 "Full" program controls are applied to safety-related SSCs categorized as being "high" safety significant/risk important. These "Full" levels of controls and oversight are designed to provide a high degree of confidence that SSCs perform safely and activities are performed as expected. Table I to the OQAP chapter prescribes the program commitments applicable to "Full" program activities.

5.3.7 "Basic" program controls are applied to safety- related SSCs categorized as "medium" or "low" safety significant/risk important. These are lower levels of control and oversight, designed to maintain/preserve those identified critical attributes of SSCs needed to support systems' critical functions. These controls are intended to reflect economical and efficient business practices. Table I to the OQAP chapter prescribes the program commitments applicable to "Basic" program activities.

5.3.8 "Targeted" program controls are applied to non-safety related SSCs, for which 10CFR50, Appendix B is not applicable, categorized as "high" or "medium" safety significant/risk importance. Specific program controls consistent with applicable portions of the "full" and "basic" program controls are applied to those items in a selected manner, "targeted" at those characteristics or critical attributes that render the SSC significant or important.

5.3.9 Components that are highly reliable, yet whose failure would result in a significant increase in risk, will receive Full program coverage, or will be evaluated based on their risk importance to ensure that Full program controls are applied to their critical attributes.

5.3.10 SSCs governed by the OQAP shall retain "Full" program coverage until such time as prescribed risk-informed, performance-based analyses are completed and approved, and they are placed into other program categories (i.e., "Targeted" or "Basic") as appropriate.

5.3.11 A vital element of the GQA program is the "feedback" loop. On a periodic basis, and as prescribed in the Comprehensive Risk Management procedure, the GQA Working Group and Expert Panel shall review any changes to the PSA information and performance/operating experience that could result in recategorization of an SSC. These reviews are also used to assess the effectiveness and appropriateness of in-place quality program controls. Adjustments shall be made as determined necessary. Those components for which an increase in failure rates results in a significant increase in risk will have Full program controls established.

5.4 Delegation of QA Functions

5.4.1 The OQAP may be executed in whole or part by subcontract personnel. However, STP will retain responsibility for the total quality assurance program, and Quality organization personnel will perform appropriate oversight activities of subcontracted activities.

5.5 Identification of Safety Significant Structures, Systems, and Components

5.5.1 The program described herein is applied to activities affecting the safety 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 structures, systems, and components controlled are listed in UFSAR Section 3.2, along with their associated fire protection systems. UFSAR Section 3.2 also identifies those structures, systems, and components which may not represent a safety significant/risk important concern but to which the STP OQAP is applied.

5.5.2 The fire protection QA Program is part of the overall STP Operations QA Program. Fire protection QA Program criteria are implemented as part of the Operations QA Program.

5.5.3 Expendable or consumable items necessary for the functional performance of 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.

5.6 QA Program Documents

5.6.1 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 level of 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 significance by individuals qualified to do so.

5.7 Personnel Indoctrination and Training

5.7.1 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 STP personnel are described in UFSAR Section 13.2. 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.

5.8 Policies and Goals

5.8.1 STP policy is to assure that the design, procurement, construction, testing, and operation of the STP are in conformance with specifications, procedures, codes, commitments and Nuclear Regulatory Commission (NRC) regulations. The responsibility of each organization supporting the STP is to ensure that the requirements stated in this QA Program are incorporated into procedures. Adherence to those procedures is mandatory for all STP organizations and contractors or vendors providing items or services covered by the QA Program.

5.8.2 The OQAP identifies activities and establishes requirements for procedures which identify, report, and verify the resolution of 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, the Vice President, Engineering & Technical Services or senior management of the Quality & Licensing function shall present the problem to the President and Chief Executive Officer for resolution.

5.9 Control of Activities

5.9.1 The OQAP requires Quality department 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.

5.9.2 STP personnel attend planning, scheduling, and status meetings as necessary to assure adequate quality coverage and program application exists.

5.10 Management Review

5.10.1 The implementation of both line and OQAP requirements shall be verified through independent oversight activities. The Quality organization shall conduct independent oversight activities of the operating plant and of the interfacing organizations' activities.

5.10.2 Independent oversight of implementation of the OQAP is conducted under the cognizance of the Nuclear Safety Review Board and results are transmitted to appropriate line and senior management, including the President and Chief Executive Officer for review and/or action.

5.10.3 STP may use the services of architect-engineer firms, Nuclear Steam Supply System (NSSS) suppliers, fuel fabricators, constructors, and others which provide or augment STP efforts during operations. As applicable, the QA programs of such contractors or consultants shall be subject to review, evaluation, and acceptance by the Quality organization before initiation of activities affected by the program.

5.11 Computer Code Programs

5.11.1 The development, maintenance, and use of computer code programs will be controlled. Prior to use of a computer code program, 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.

7.0 ATTACHMENTS

7.1 Table I - Program Commitments

TABLE I

PROGRAM COMMITMENTS

R.G./ANSI STANDARD	FULL PROGRAM	BASIC PROGRAM
R.G. 1.8, rev. 1 (9/75)	No exceptions taken.	No exceptions taken.
ANSI N18.1, 1971	4.2.2-The Operations Manager requirements regarding holding a Senior Reactor Operator license are met by the Unit Operations Managers.	Same as full.
R.G. 1.28, rev. 0 (6/72)	This R.G. is not applicable to operations phase activities.	Same as full.
ANSI 45.2, 1971	This standard is not applicable to operations phase activities.	Same as full.
R.G. 1.33, rev. 2 (2/78)	C.2 - the specific revisions of the listed standards to which STP is committed are in this table and are not necessarily the "latest" revision. C.4 – Chapter 15.0 of the STP OQAP describes the audit program at STP that meets the intent of R.G. 1.33, rev. 2, position C.4 regarding frequency of audits C.4.a.b.c – STP performs these audits in accordance with a nominal biennial frequency.	Same as full. Same as full. Same as full.
ANSI NI8.7 – 1976/ANS 3.2	3.4.2 – refer to R.G. 1.8 regarding Operations Manager holding a Senior Reactor Operator license. 4.5 – refer to R.G. 1.33 coverage regarding audit frequency. 5.2.6 (5th paragraph) – independent verification may be concurrent with (same time as) work performance.	Same as full. 3.4.2 refer to R.G. refer to R.G. 1.5.8 regarding use of personnel not qualified in accordance with ANSI N45.2.6. Same as full. Same as full.

TABLE I

PROGRAM COMMITMENTS

R.G./ANSI STANDARD	FULL PROGRAM	BASIC PROGRAM
ANSI N18.7/ANS 3.2 (cont'd)	5.2.7 (1st paragraph) – STP will use current approved design bases as opposed to original design bases.	Same as full. 5.2.7 – STP will perform inspection as deemed necessary, based on the relative complexity of the work.
	5.2.7.1 (5th paragraph) – STP takes exception to use of the word "promptly" with regard to determining, evaluating and recording the causes of malfunctions. The STP Corrective Action Program includes the elements with regard to timeliness of action associated with causal analyses.	Same as full. 5.2.7.2 – refer to table coverage of ANSI N45.2.11, 1974. 5.2.13 (1st paragraph) – refer to table coverage of ANSI N45.2.13, 1976. 5.2.13.1 (1st paragraph) – refer to table coverage of ANSI N45.2, 1971. 5.2.13.4 (5th paragraph) – refer to table coverage of ANSI N45.2.2, 1972.
	5.2.15 (4th paragraph) – Chapter 8.0 of the OQAP describes the requirements for control and issuance of documents, which meets the intent of R.G. 1.33, rev. 2. The intent of the biennial review is accomplished by other controls that assure that procedures are appropriately reviewed and revised to incorporate information based on plant operations, design changes, regulatory requirements, industry experience and other conditions that may impact plant procedures.	Same as full.

TABLE I

PROGRAM COMMITMENTS

R.G./ANSI STANDARD	FULL PROGRAM	BASIC PROGRAM
		5.2.17 (3rd paragraph) – STP may not implement the requirement for conduct of inspections in a manner similar to that associated with construction phase activities (i.e., regarding use of personnel not qualified to ANSI N45.2.6)
R.G. 1.38, rev. 2 (5/77)	No exceptions taken.	No exceptions taken.
ANSI N45.2.2, 1972	2.4 – Audit personnel are qualified in accordance with STP's commitment to R.G. 1.146/ANSI 45.2.23.	Same as full.
		2.4 – Offsite oversight of vendors of items in the Basic category will only be performed as deemed necessary.
R.G. 1.58, rev. 1 (9/80)	C.2 – STP is committed to ASNT-TC-1A, 1980. STP treats the recommendation ("should") of the 1980 edition as requirements ("shall").	Same as full.
ANSI N45.2.6, 1978		1.2 (1st paragraph) – with the exception of receipt inspection, personnel may perform inspections, examinations and tests provided they are experienced, task qualified journeymen, or supervisors, who did not perform or directly supervised the activity being inspected, examined or tested. These individuals shall also receive training to the Quality organization's inspection procedure/

TABLE I

PROGRAM COMMITMENTS

R.G./ANSI STANDARD	FULL PROGRAM	BASIC PROGRAM
		Process/ methods in accordance with a Quality approved training program; and Quality will provide periodic oversight of the inspection activities.
	1.2 (3rd paragraph) – refer to table coverage of R.G. 1.28.	Same as full.
	1.4.4 – refer to table coverage of R.G. 1.74/ANSI N45.2.10.	Same as full.
R.G. 1.64, rev. 2 (6/76)	No exceptions taken.	C.2 – STP may implement the requirement regarding design verification as prescribed in ANSI N45.2.11, 1974, 6.1, second paragraph/second sentence, as opposed to R.G. wording.
ASNI N45.2.11, 1974	No exceptions taken.	3.2 (1st paragraph) – STP will require personnel to consider items 1 through 28, but a documented checklist may not be required. 6.3 – Verification and checking of design may be accomplished through supervisory or management review/approval as provided for in 6.1 Personnel will be required to consider items 1 through 19, but a documented checklist may not be required.
R.G. 1.74 (2/74)	Not applicable to STP. STP uses ANSI/ASME NQA-1-1983 for Quality Assurance Terms and Definitions.	Same as full.

TABLE I

PROGRAM COMMITMENTS

R.G./ANSI STANDARD	FULL PROGRAM	BASIC PROGRAM
ANSI N45.2.10, 1973	Same as R.G. 1.74 above.	Same as full.
R.G. 1.123, rev. 1 (7/77)	C.6.b.and e. – The referenced section of ANSI N45.2.13 will be implemented as written.	
ANSI N45.2.13, 1976	Various sections refer to ANSI N45.2. Refer to table coverage of R.G. 1.28 and ANSI N45.2. 5.3 and 5.4 – Provision are established for, in special cases and with management approval, completion of these activities after award of contract. 9.0 – This section will be implemented based on the scope, complexity and safety significance of the items being procured.	Same as full. Same as full. Same as full. 10.3.1 – This section will only be implemented as deemed necessary. 12 – This section will only be implemented as deemed necessary for audits of suppliers.
R.G. 1.144, rev. 1 (9/80)	C.1 – refer to table coverage of R.G. 1.28 and ANSI N45.2. C.3a(1) – refer to table coverage of R.G. 1.33 regarding audit frequency.	Same as full. Same as full. c.3.b STP will audit vendors only as deemed necessary. STP will perform biennial evaluations.

TABLE I

PROGRAM COMMITMENTS

R.G./ANSI STANDARD	FULL PROGRAM	BASIC PROGRAM
ANSI N45.2.12, 1977	No exceptions taken.	STP will audit vendors only as deemed necessary. These audits will be conducted as unplanned/unscheduled audits.
R.G. 1.146, rev. 0 (8/80)	C.1 – refer to table coverage of R.G. 1.28 and ANSI N45.2. Refer to table coverage of R.G. 1.74 and ANSI N45.2.10	Same as full.
ANSI N45.2.23, 1978	1.2 – refer to table coverage of R.G. 1.28. 1.4 – refer to table coverage of R.G. 1.74. 2.21 – refer to table coverage of R.G. 1.28. 2.3.3.1 – refer to table coverage of R.G 1.28.	Same as full. Same as full. Same as full. Same as full.

For Regulatory Guides addressed by the table, and unless specific clarification or exception is indicated, STP will implement the Regulatory Guide positions, including recommendations.

For ANSI Standards addressed by this table, and unless specific clarification or exception is indicated, STP will treat ANSI requirements (i.e., "shall") as such – except in instances where the standard itself provides options or requires a graded approach – this notwithstanding the general applicability statements found in many standards (i.e., section 1.0)

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 (STP).

2.0 SCOPE

2.1 This chapter applies to all personnel performing activities associated with structures, systems, and components during the operations phase of the STP.

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 STP Technical Specifications

4.2 OQAP Chapter 2.0, Table I

4.3 UFSAR 13.5.2.1 paragraph 4, Emergency Operating Procedures

4.4 OQAP Chapter 14.0, Records Control

4.5 10CFR100, Reactor Site Criteria

5.0 REQUIREMENTS

5.1 Activities affecting structures, systems, and components shall be conducted in accordance with written, approved procedures.

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. These shall not be used in lieu of, or to modify existing procedures.

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. These shall not be used in lieu of, or to modify existing procedures.

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 structures, systems, components and activities at the South Texas Project Electric Generating Station (STP).

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 OQAP Chapter 2.0, Table I

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

4.3 10CFR55 Operator's Licenses

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

4.5 OQAP Chapter 14.0, Records Control

4.6 INPO ACAD 92-004, Guidelines for the Conduct of Training and Qualification Activities

5.0 REQUIREMENTS

5.1 General

5.1.1 Position qualification requirements shall be established for personnel in accordance with References 4.1, 4.2, 4.3, 4.4.

5.1.2 Programs shall be developed for the qualification, 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 (e.g., 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 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 Quality 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 STP 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 4.3.

5.3.2 Inspection, testing and examination personnel shall be qualified, trained, and certified in accordance with Reference 4.1.

5.3.3 Nondestructive examination personnel shall receive training, which meets the requirements of Reference 4.1, 4.2 and 4.4.

5.3.4 Audit personnel shall be qualified, trained and certified to the requirements of Reference 4.1.

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

5.4 Experienced personnel may be considered for exemption from prerequisite training. Training exemptions shall be controlled in accordance with approved station procedures.

5.5 Procedures shall provide for the evaluation of 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 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 4.5.

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 structures, systems, and components at the South Texas Project Electric Generating Station (STP).

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), of structures, systems, and components subject to the controls of this OQAP.

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 OQAP Chapter 2.0, Table I

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

4.7 OQAP Chapter 13.0, Control of Conditions Adverse to Quality

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 design bases and requirements, materials specifications, and inspection requirements.

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 prescribed 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 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 equipment performance experience.

5.3 Corrective Maintenance

5.3.1 Equipment failures, malfunctions and degradation shall be corrected in accordance with Reference 4.7. This shall include determination of root cause and implementation of recurrence controls, as appropriate.

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 Consideration should be given to an augmented testing and inspection program following a large-scale component replacement (or repair) 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 action shall be taken to stabilize the condition. Procedures shall designate those operating individuals responsible for authorizing this initial action.

5.4.2 Once the condition has stabilized, the initial 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 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.

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, or if not covered, the qualification requirements shall be defined.

5.5.1.3 Records shall be maintained and kept current for the qualification of procedures, equipment, and personnel associated with special processes. Records shall be 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.

5.5.1.4 Procedures shall provide for the control of special process identification indicators, such as welder's 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 site 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 exclude the entry of foreign 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 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 are 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

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

1.0 PURPOSE

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

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 STP 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

4.5 OQAP Chapter 13.0, Control of Conditions Adverse to Quality

4.6 OQAP Chapter 2.0, Table I

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, unreviewed safety question evaluations shall be performed as required by Reference 4.4.

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 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 structures, systems, and components will be conducted before selection.

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 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 methods. Design verification shall be either by design review, alternate calculation, qualification testing, or 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. (This paragraph's recommendation does not apply to verification of design for items in the "Basic" program category)

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.

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 Conditions adverse to quality found in approved design documents, including design methods, that could adversely affect structures, systems, or components shall be documented and action taken to correct and prevent recurrence, in accordance with Reference 4.5.

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 structures, systems, or components are performed in a manner to ensure quality at least equivalent to that specified in the UFSAR or current design bases and requirements.

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

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

5.12 Modifications

5.12.1 Modifications to 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 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 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 (STP).

2.0 SCOPE

2.1 This chapter applies to the procurement of items and services for use at STP which are subject to the controls of this Quality program. 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 OQAP Chapter 2.0, Table I

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

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

4.6 OQAP Chapter 13.0, Control of Conditions Adverse to Quality

4.7 OQAP Chapter 14.0, Records Control

4.8 Generic Letter 89-02, Actions to Improve the Detection of Counterfeit and Fraudulent Marketed Products

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 STP Nuclear Operating Company (STPNOC). The department requesting the material or service provides technical content and quality requirements. Design Engineering/Nuclear Purchasing & Material Management is responsible to provide input to the requesting department on technical content and quality requirements, as requested. Quality will concur with all changes to quality requirements.

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 materials, parts, components, and services. Procurement may be initiated by any STPNOC 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 materials, parts, components, or services shall be reviewed by the cognizant technical organization to verify that adequate technical and quality requirements have been specified.

- The reviews for technical and quality requirements shall be performed by someone other than the originator of the requisition. Quality will concur with all changes to quality requirements.

5.1.2.2 Purchase Orders and Contracts

- Purchase orders and contracts are prepared and issued by Nuclear Purchasing and Material Management and establish for the suppliers the technical and quality requirements which must be met.

- 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.

5.1.2.3 Change Controls

- 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 do 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 Items may be procured as Commercial Grade Items (CGIs) if a documented engineering evaluation indicates the CGI will provide equivalent performance. CGI dedication will comply with established procedures designed to satisfy the requirements of References 4.2 and 4.8.

5.1.3.2 The cognizant technical organization 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 STP Quality 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. The following shall be included or invoked by reference in procurement documents as appropriate:

5.2.1.1 Applicable regulatory, code, and design requirements, including 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 (unless changed by established design control processes).

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 STPNOC based on the results of a survey of the vendor's controls, the vendor's STPNOC 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 STP personnel.

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

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

5.2.1.6 Requirements for extending applicable STP procurement requirements to lower-tier suppliers and subcontractors, including STPNOC's access to facilities and records.

5.2.1.7 Requirements for supplier reporting to STP 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 STPNOC. Supplier-furnished records shall include:

- Documentation (e.g., certification) 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 STPNOC.

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 items (for CGIs, when basis for dedication includes commercial grade survey) 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 Engineering & Technical Services, NPMM, and STP 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 risk significance 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, STP records accumulated in previous procurement actions, and STP 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 suppliers' current quality records supported by documented qualitative and quantitative information which can be objectively evaluated. This may include review and evaluation of the suppliers' QA Program Manual, procedures, and responses to questionnaires, as appropriate.

- A source evaluation of the suppliers' 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 suppliers' current quality program or capabilities.

5.4.1.4 A documented quality assurance evaluation of a 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, or, for CGIs, to assure the program provides adequate control over established critical characteristics.

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 senior management of the Quality & Licensing function.

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 STP approved quality assurance program as long as the supplied personnel are trained and work under the auspices of the STP Operations Quality Assurance Plan.

5.4.2 Each vendor on the Approved Vendors List shall be periodically evaluated by Quality as provided by Reference 4.3 (i.e., annually for "Full" program, biennially for "Basic" program).

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 senior management of the Quality & Licensing function.

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 Verification activities shall be performed using plans developed in accordance with procedures with appropriate input from the cognizant technical organization. The plan shall specify the characteristics or processes to be witnessed, inspected or verified.

5.4.3.2 Specified source inspections may be waived by the senior management of the Quality & Licensing function.

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 verification activities. If source 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 4.5. Technical assistance shall be provided by Generation or Engineering & Technical Services 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 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 4.6.

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 and is witnessed by Engineering & Technical Services 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:

Written certifications
(Note: This shall not be the sole method of acceptance for items in the "Basic" program)

Surveillance/Audit of procured service

Source verification

Receiving inspection/testing

Commercial Grade Item dedication

Vendor surveillance

Post-installation test

5.5.9 Documented evidence from the supplier that procured items meet procurement quality requirements, when required, 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 Reference 4.6.

5.6 Vendor Surveys, Surveillance and Audit

5.6.1 Suppliers Certificates of Conformance, for items except those in the "Basic" category, shall be periodically evaluated by audits, independent inspections, surveys, or tests to assure that they are valid and results are documented. When acceptance is based upon source inspection, documented evidence shall be furnished to the plant receiving organization.

5.6.1.1 Acceptance by source inspection 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/source inspection involves a physical presence to monitor, by observation, designated activities for the purpose of evaluating supplier performance and product acceptance (source inspection only).

5.6.2 The STP survey and audit program provide for periodic scheduled audits or surveys of suppliers, the site procurement program, contractors, subcontractors, and others performing work. The audit and survey schedule is prepared and updated by Quality. Frequency of these surveys and 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 4.7.

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 documents such as instructions, procedures and drawings, including changes thereto for the South Texas Project Electric Generating Station (STP).

2.0 SCOPE

2.1 This chapter is applicable to documents, which control activities for the licensing, operation, testing, maintenance, and plant modification of the STP. 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

4.3 OQAP Chapter 2.0, Table I

5.0 REQUIREMENTS

5.1 Procedures shall be established which identify the organizations or individuals responsible for the preparation, review, approval, and issuance of 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. The Quality organization 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.

5.5 Documents shall be available and used at work locations by individuals or organizations performing 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 activities are responsible for assuring the documents being used are the correct revision prior to such use.

5.7 Safety-related procedures shall be maintained in an accurate and usable condition. Changes to safety-related procedures shall be made as necessary. The root cause of significant deficiencies regarding safety-related procedures shall be identified and corrected. The following activities provide ongoing confirmation of this.

5.7.1 Applicable plant procedures shall be reviewed following an unusual incident such as an accident, an unexpected transient, significant operator error, or equipment malfunction and following any modification to a system.

5.7.2 Non-routine procedures (procedures such as emergency operation procedures, off-normal procedures procedures which implement the Emergency Plan, and other procedures whose usage may be dictated by an event) shall be reviewed at least every two years and revised as appropriate.

5.7.3 At least every two years, quality assurance audits and other independent oversight activities shall review a representative sample of the routine plant procedures that are used more frequently than every two years. These reviews shall ensure the acceptability of the procedures and verify that the procedure review and revision program is being implemented effectively. The root cause of significant deficiencies shall be determined and corrected.

5.7.4 Routine plant procedures that have not been used for two years shall be reviewed before use to determine if changes are necessary or desirable.

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 (STP).

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 OQAP Chapter 2.0, Table I

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

4.3 OQAP Chapter 7.0, Procurement

4.4 OQAP Chapter 14.0, Records Control

4.5 STP UFSAR Table 3.12-1

5.0 REQUIREMENTS

5.1 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 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 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 Measures 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 in accordance with Reference 4.1.

5.6 Housekeeping

5.6.1 Measures shall be established for housekeeping activities in the storage areas, which include: zone designation, environment control, work area cleanliness, fire protection, inspection, and surveillance. These measures shall meet the applicable requirements of Reference 4.5.

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 4.2.

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 prescribe the requirements and the responsibilities for inspection.

2.0 SCOPE

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

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

4.4 OQAP Chapter 2.0, Table I

5.0 REQUIREMENTS

5.1 Inspection

5.1.1 Inspections shall be performed in accordance with 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 and 4.4. These individuals shall be other than those who performed or directly supervised the activity being inspected. 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 For "Full" program implementation, 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 additional controls apply:

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

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

5.1.3 For "Basic" program implementation, with the exception of receipt inspection, personnel may perform inspections, examinations and tests provided:

5.1.3.1 They are experienced, task qualified journeymen, or supervisors, who did not perform or directly supervise the activity being inspected, examined or tested, and

5.1.3.2 These individuals shall also receive training to the Quality organization's inspection procedure/process/methods in accordance with a Quality approved training program; and

5.1.3.3 Quality will provide periodic oversight of the inspection activities.

5.1.4 Examples of the activities subject to inspection include:

5.1.4.1 Special processes

5.1.4.2 Modifications

5.1.4.3 Receipt of materials, parts and components

5.1.4.4 Maintenance

5.1.4.5 Packaging, shipping and handling of radioactive waste material

5.1.5 Process Monitoring

5.1.5.1 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 activities are performed in accordance with documented instructions, procedures, drawings, and specifications.

5.1.6 Supporting Inspections

5.1.6.1 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.

5.1.7 Mandatory Inspections

5.1.7.1 Mandatory inspection holdpoints are established by the organization performing the work or Engineering & Technical Services personnel. Witnessing or inspection of hold points by Engineering & Technical Services shall be accomplished before work can proceed. Plant procedures and work instructions shall be reviewed by Engineering & Technical Services for concurrence with the established mandatory hold points.

5.1.7.2 Engineering & Technical Services 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 Engineering & Technical Services involvement may be desired.

5.1.8 Inspection results shall be reviewed and approved by qualified personnel to verify that the inspection requirements were satisfied.

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

5.1.9.1 Item inspected

5.1.9.2 Date of inspection

5.1.9.3 Inspector

5.1.9.4 Type of observation/inspection

5.1.9.5 Results and acceptability

5.1.9.6 Reference to information on action taken in connection with nonconformances

5.1.9.7 Test equipment used

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

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

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

5.1.13 Acceptance

5.1.13.1 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 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 structures, systems, and components.

2.0 SCOPE

2.1 This chapter is applicable to the testing of 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 (STP) 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

4.5 OQAP Chapter 2.0, Table I

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 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 Engineering & Technical Services.

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 (e.g., 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 nonconformance and corrective action.

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 activities or structures, systems and components are properly controlled, maintained, and calibrated at the South Texas Project Electric Generating Station (STP).

2.0 SCOPE

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

4.3 OQAP Chapter 2.0, Table I

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 (MTE) 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 or installed instrument and control devices are 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

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 conditions adverse to quality.

2.0 SCOPE

2.1 This chapter applies to conditions adverse to quality 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 (STP) Technical Specifications

4.6 OQAP Chapter 14.0, Records Control

4.7 OQAP Chapter 2.0, Table I

5.0 REQUIREMENTS

5.1 All personnel working under the jurisdiction of the Operations Quality Assurance Plan are responsible for reporting conditions adverse to quality 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 conditions adverse to quality.

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 conditions adverse to quality by tagging, segregation, administrative controls, or other appropriate means to prevent inadvertent installation, use, or continuation of the activity and removal of such controls when returned to service or availability.

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

5.2.5.1 Material conditions adverse to quality 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" dispositions shall be approved and justified in writing by Engineering & Technical Services.

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 the Quality organization, as appropriate.

5.2.8 Repaired and reworked items shall be reinspected in accordance with applicable procedures. 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 & Technical Services. 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. Once 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 Conditions adverse to quality identified on installed items will be evaluated for operability.

5.2.11 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:

5.3.1 Unique identification and numbering of conditions adverse to quality.

5.3.2 Preparing and maintaining status reporting of conditions adverse to quality.

5.3.3 Actions to be taken to assure timely corrective action on conditions adverse to quality.

5.4 Procedures which identify and track conditions adverse to quality 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 conditions adverse to quality for reportability to the NRC as required by References 4.2, 4.3, and 4.4, as appropriate.

5.6 The authority to stop work has been assigned to the senior management of the Quality & Licensing function 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 conditions adverse to quality. The results of these reviews and analyses are reported to the affected organization and executive management, and are audited by the Quality organization. Adverse trends shall be evaluated and processed in accordance with controlling procedures.

5.8 For medium and low safety significant SSCs treated by the Basic program controls, measures shall be established to identify causes and to trend failures to assist in evaluating the need for more detailed root cause analysis (if excessive failures occur) and proper corrective action. Further, particular consideration will be given to assessing the potential implications of such failures generically to similar SSCs treated by the Full program.

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 records.

2.0 SCOPE

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

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 OQAP Chapter 2.0, Table I

4.2 STP UFSAR Table 3.12-1

5.0 REQUIREMENTS

5.1 Records shall be collected, filed, stored, maintained, and dispositioned.

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 4.2.

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 STP DTL (an electronic database) is used as a record index/checklist. If a conflict of retention times exists between regulatory, standard, technical specification requirements, or the technical requirements manual, 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 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). 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, and

5.9.1 For hard copy (i.e. paper) originals, shall be in ink and be entered in a manner such that the original information is not obliterated, or

5.9.2 For originals in an electronic format, shall be annotated in a manner such that the correction/supplement is easily identified as a correction or supplement and 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 independent oversight activities of quality assurance programs for the South Texas Project Electric Generating Station (STP).

2.0 SCOPE

2.1 This chapter provides for implementing a program of independent oversight activities which includes audits, assessments, evaluations, performance monitoring, and surveillances 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 OQAP Chapter 2.0, Table I

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, Control of Conditions Adverse to Quality

4.5 OQAP Chapter 14.0, Records Control

5.0 REQUIREMENTS

5.1 Independent Oversight Activities

5.1.1 Procedures shall be developed to control independent oversight activities. These activities include, but are not limited to, audits, assessments, evaluations, performance monitoring, and surveillances. These activities shall be used to observe and verify that activities are accomplished in accordance with prescribed requirements.

5.2 Audits

5.2.1 A comprehensive audit program in compliance with Reference 4.1 shall be established and implemented by STP Nuclear Operating Company (STPNOC) to verify internal and external quality activity compliance with the Quality 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:

5.2.1.1 Operation, maintenance, and modifications

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

5.2.1.3 Material and special process control

5.2.1.4 Indoctrination and training programs

5.2.1.5 Implementation of operating and test procedures

5.2.1.6 Calibration of measuring and test equipment

5.2.1.7 Corrective action and nonconformance control

5.2.1.8 Performance of the plant staff, including training records

5.2.1.9 Plant inspection activities

5.2.2 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, complexity, or special nature of the activities to be audited; and shall be qualified in accordance with the requirements of Reference 4.2.

5.2.2.1 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, pre-audit 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.

5.2.2.2 Other qualified personnel may assist in the conduct of audits, such as technical specialists or management representatives.

5.2.3 Internal Audits

5.2.3.1 Internal audits shall be conducted by the Quality Department and performed with a frequency commensurate with their safety significance, past performance and regulatory requirements. Audits are scheduled on a nominal biennial frequency, except those audits whose frequency is specifically governed by regulation.

If a decision is made to extend an audit beyond that nominal frequency, the basis for that decision shall be documented. Decisions shall be approved by the senior management of the Quality & Licensing function and notifications made to the Vice President, Engineering & Technical Services and the Nuclear Safety Review Board.

5.2.3.2 Review of the audit program shall be performed at least semiannually by the Nuclear Safety Review Board or by a management representative to verify that audits are being accomplished in accordance with the requirements of the Quality Program.

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

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

5.2.4 Supplemental audits shall be conducted when:

5.2.4.1 Significant changes are made to the quality assurance program.

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

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

5.2.4.4 Requested by appropriate management.

5.2.5 Audit implementation shall include the following:

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

5.2.5.2 Development of an individual audit plan/scope. The audit plan and any necessary reference documents shall be available to the audit team members.

5.2.5.3 A pre-audit and post-audit conference with responsible organizational management.

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

5.2.5.5 Identifying and documenting conditions adverse to quality.

5.2.5.6 Audit reports shall be prepared and submitted to the audited organization, senior management, and the President and Chief Executive Officer within thirty days after the post-audit conference. The audit report shall address those items required by Reference 4.1.

5.2.5.7 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.

5.2.5.8 Evaluation of corrective action for conditions adverse to quality and follow-up verification as appropriate.

5.3 Surveillance/Quality Performance Monitoring

5.3.1 Procedures and/or instructions shall be developed to control surveillance/quality performance monitoring activities. Surveillance/quality performance monitoring activities shall be used to observe and verify that activities are accomplished in accordance with prescribed procedures.

5.3.2 Surveillance/quality performance monitoring activities will be performed during refueling outages, startup activities, and normal and off-normal operational activities. Areas to be monitored will be determined based on safety significance, past performance, regulatory requirements, and customer request.

5.3.3 The frequency of surveillance/quality performance monitoring activities is based upon the complexity of the activity, importance of the activity, and severity level of conditions noted during previous oversight activities.

5.3.4 Surveillance/quality performance monitoring results shall be documented and a summary shall be prepared and transmitted to responsible management.

5.4 Assessments/Evaluations

5.4.1 Assessments are conducted annually in accordance with written procedures to assess the Quality organization's implementation of the Operations Quality Assurance Plan.

5.4.1.1 These assessments will be conducted by organizations independent of the activities performed to assure the STPNOC OQAP is being properly implemented.

5.4.1.2 The Nuclear Safety Review Board shall define the scope of the assessment and determine the schedule.

5.4.1.3 The results of these assessments will be transmitted to the President and Chief Executive Officer.

5.4.2 Other assessments/evaluations may be performed to verify activities are accomplished in accordance with applicable requirements and prescribed procedures.

5.4.2.1 These assessments/evaluations will be performed on areas based on their safety significance, past performance, regulatory requirements, and customer request.

5.4.2.2 Assessment/evaluation results shall be documented and transmitted to appropriate management.

5.5 An approved oversight plan shall be issued annually to include:

5.5.1 Activities/organizations to receive independent oversight.

5.5.2 Time frame in which the oversight activity will be conducted.

5.6 Conditions adverse to quality identified during an independent oversight activity shall be documented in accordance with Reference 4.4.

5.7 Personnel performing independent oversight activities shall be trained and qualified in accordance with Reference 4.2.

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 describe the requirements and responsibilities for independent technical review for the South Texas Project Electric Generating Station (STPEGS).

2.0 SCOPE

2.1 This chapter describes the independent technical review activities within the scope of the Operations Quality Assurance Plan (OQAP).

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 OQAP Chapter 1.0, Organization

4.2 OQAP Chapter 2.0, Program Description

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

4.4 OQAP Chapter 13.0, Deficiency Control

4.5 OQAP Chapter 14.0, Records Control

4.6 OQAP Chapter 15.0, Quality Oversight Activities

5.0 RESPONSIBILITIES

5.1 The Vice President, Engineering & Technical Services is responsible for implementing quality program requirements including independent technical review.

5.2 The senior management of the Quality & Licensing function is responsible for independent oversight activities performed to accomplish the independent technical reviews.

6.0 REQUIREMENTS

6.1 Independent oversight activities, as described in Reference 4.6, shall be performed in accordance with implementing procedures to ensure the completion of independent technical reviews.

6.2 Independent technical reviews shall be used to observe and verify that activities are performed correctly and that human errors are reduced as much as practical.

6.3 Independent technical reviews shall include, but not be limited to, the following activities:

6.3.1 Unit-operating characteristics

6.3.2 Nuclear Regulatory Commission issuances

6.3.3 Industry advisories

6.3.4 Licensee Event Reports

6.3.5 Other sources of unit design and operating experience information, including units of similar design, which may indicate areas for improving unit safety.

6.3.6 Plant operations

6.3.7 Maintenance activities

6.3.8 Equipment modifications

6.4 As determined by Quality management, several personnel performing independent technical reviews will be required to have a degree in engineering or related science and at least 3 years of professional level experience in the nuclear field.

6.5 Personnel performing independent technical reviews should be independent of performance function, signoff function, and the plant management chain while performing this oversight activity.

6.6 The results of independent technical reviews will be periodically transmitted to appropriate line and senior management, the Nuclear Safety Review Board, and the President and Chief Executive Officer for review and/or action and advise management on the overall quality and safety of operations.

6.7 Conditions adverse to quality and recommendations identified during the performance of independent technical reviews shall meet the requirements of Reference 4.4

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, 3, CC, and MC 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

4.3 Generic Letter 89-009, ASME Section III Component Replacements

5.0 RESPONSIBILITIES

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

5.2 The Vice President, Engineering & Technical Services (E&TS) is responsible for developing the repair and replacement program including specifications for design, fabrication, testing, and examination. The Vice President, E&TS 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 Identification 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.

6.1.13 Procurement, in accordance with Reference 4.3, of component replacements not available in full compliance with ASME code stamping and documentation requirements.

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, 3, CC, and MC 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, Engineering & Technical Services (E&TS) is responsible for developing and implementing the inservice examination and testing programs as required by ASME Code Section XI. The Vice President, E&TS is responsible for verifying the implementation of the inservice examination and testing programs through appropriate quality oversight activities, interfacing with the Authorized Inspection Agency, and performance of nondestructive examinations as requested.

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, 3, CC, and MC 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 Engineering & Technical Services shall develop plans for examination and testing of Class 1, 2, 3, CC, and MC 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 Engineering & Technical Services 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 STP Nuclear Operating Company (STPNOC) 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 STPNOC.

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

OQAP CHANGE QA-043
SUMMARY OF CHANGES

ALL CHANGES ARE IN BOLD TYPE

CHAPTER	LOCATION	ACTION	TEXT
TOC	Definition	INSERT	**QA-043**
	CH. 1.0	INSERT	**QA-043**
	CH. 14.0	INSERT	**QA-043**
Definitions	Abnormal Condition (a.)	INSERT	**technical requirements manual**
CH. 1.0	5.1.2	DELETE	**operations**
	5.1.2	INSERT	**generation and plant projects & programs**
	5.1.4	DELETE	**plant projects & programs**
	5.1.5	DELETE	**The Vice President and Special Assistant to the President and Chief Executive Officer is responsible for implementing quality program requirements applicable to this position.**
	5.1.6	CHANGE	Renumber to **5.1.5**
	5.1.5 (new)	DELETE	**Director, (SQP), the SQP**
	5.1.5 (new)	INSERT	**Manager, this function**
	Att. 1	MOVE	the function of **plant projects & programs** from the V.P. Business Services to the V.P. Generation
	Att. 1	CHANGE	the name of the function **Operations Support** to **Generation Support**
	Att. 1	DELETE	organization box for **Vice President and Special Assistant to the President and Chief Executive Officer**

ALL CHANGES ARE IN BOLD TYPE

CHAPTER	LOCATION	ACTION	TEXT
CH. 14.0	5.4	INSERT	**technical requirements manual**
	5.9	DELETE	**shall be in ink and be entered in a manner such that the original information is not obliterated.**
	5.9	INSERT	**and**
	5.9.1	INSERT	**For hard copy (i.e. paper) originals, shall be in ink and be entered in a manner such that the original information is not obliterated, or**
	5.9.2	INSERT	**For originals in an electronic format, shall be annotated in a manner such that the correction/supplement is easily identified as a correction or supplement and the original information is not obliterated.**