SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION OPERATIONS QUALITY ASSURANCE PLAN APPROVAL	NUMBER Approval	REV. NO. 12
	PAGE 1 OF 1	
	EFFECTIVE DATE 08-01-96	

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SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION OPERATIONS QUALITY ASSURANCE PLAN TABLE OF CONTENTS PART A	NUMBER Table of Contents	REV. NO. 12
	PAGE 1 OF 1	
	EFFECTIVE DATE 08-01-96	

Chapter Number	Title	Effective Chapter Revision	Effective Revision Date	Change Notice No.
	Definitions	6	08-01-96	
1.0	Organization	8	08-01-96	
2.0	Program Description	10	08-01-96	
3.0	Conduct of Plant Operations	7	08-01-96	
4.0	Qualification, Training, and Certification of Personnel	6	08-01-96	
5.0	Maintenance, Installation of Modifications, and Related Activities	5	08-01-96	
6.0	Design and Modification Control	7	08-01-96	
7.0	Procurement	7	08-01-96	
8.0	Control and Issuance of Documents	5	08-01-96	
9.0	Control of Material	6	08-01-96	
10.0	Inspection	7	08-01-96	
11.0	Test Control	6	08-01-96	
12.0	Instrument and Calibration Control	6	08-01-96	
13.0	Deficiency Control	7	08-01-96	
14.0	Records Control	5	08-01-96	
15.0	Quality Assurance Overview Activities	6	08-01-96	

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION	NUMBER Definitions	REV. NO. 6
OPERATIONS QUALITY ASSURANCE PLAN	PAGE 1 OF 9	
DEFINITIONS	EFFECTIVE DATE 08-01-96	

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

DEFINITIONS

Abnormal Condition - Any of the following:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

b. Increased surveillance of procedures and practices.

c. Work stoppage until problem situation is alleviated.

d. Special training of personnel.

e. Reassignment of personnel.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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.

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION	NUMBER Chapter 1.0	REV. NO. 8
OPERATIONS QUALITY ASSURANCE PLAN	PAGE 1 OF 6	
ORGANIZATION	EFFECTIVE DATE 08-01-96	

1.0 PURPOSE

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

2.0 SCOPE

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

2.2 The requirements of this chapter are applicable for items/activities designated as "Full", "Targeted", or "Basic".

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 None

5.0 RESPONSIBILITIES

5.1 The Nuclear Group is comprised of Nuclear Generation, Nuclear Engineering, Nuclear Assurance & Licensing (NA&L), Plant Services, Human Resources and Access Authorization, and Nuclear Safety Quality Concerns. The heads of these groups report to the Executive Vice President and General Manager, Nuclear.

5.1.1 The Executive Vice President and General Manager, Nuclear, 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, Nuclear Generation is responsible for implementing quality program requirements applicable to staffing STPEGS with qualified personnel and acquiring and

coordinating the assistance of internal and external organizations for the testing, operation, modification, maintenance, security, and radiological monitoring functions of STPEGS.

5.1.2.1 The General Manager, Generation Support; Plant Manager, Unit 1; Plant Manager, Unit 2; and Manager, Nuclear Plant Protection; report to the Vice President, Nuclear Generation.

5.1.2.2 The Plant Managers have prime responsibility for the safe operations of their respective units. The plant staff, under the direction of the Plant Managers, develop detailed procedures and instructions for testing, operation, modification, and maintenance of the STPEGS.

5.1.3 The Vice President, Nuclear Engineering is responsible for implementing quality program requirements applicable to the design engineering and control, systems engineering, nuclear fuels design, acquisition and management, and engineering support functions.

5.1.3.1 The Manager, Design Engineering; Manager, Systems Engineering; and Director, Nuclear Fuel and Analysis report to the Vice President, Nuclear Engineering.

5.1.4 The General Manager, NA&L is responsible for the development, maintenance, and independent verification of implementation of the STPEGS QA Program; making periodic reports on its effectiveness; review of selected documents which control activities within its scope; and preparation, control, and approval of the OQAP and revisions thereto.

The General Manager, NA&L is also responsible for implementing quality program requirements applicable to STPEGS corrective action, licensing, emergency preparedness, and Independent Safety Engineering Group activities, and administration of the Nuclear Safety Review Board.

The General Manager, NA&L 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-related activities without undue pressure of cost or schedule.

The General Manager, NA&L, has the authority to stop work for cause. This authority in QA matters has been granted by the Executive Vice President and General Manager, Nuclear.

The Quality organization, including the inspection staff, is based upon the anticipated involvement in operations, modification, and maintenance activities.

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

5.1.4.1 The Director, Quality; Manager, Operating Experience; Manager, Emergency Response; and Manager, Industry Relations report to the General Manager, NA&L.

5.1.4.2 The NSRB administratively reports to the Manager, Industry Relations. The NSRB functionally reports directly to and advises the Executive Vice President and General Manager, Nuclear.

5.1.4.3 The Director, Quality is responsible for Independent Safety Engineering Group activities, audits, independent assessments, performance monitoring, vendor evaluation, material testing,

document reviews, surveillances, inspections and NDE examinations.

5.1.4.4 During the overview of activities performed by the NA&L organization, the Director, Quality; at his discretion; reports directly to the Executive Vice President and General Manager, Nuclear.

5.1.5 The General Manager, Plant Services is responsible for implementing quality program requirements applicable to nuclear training, planning and controls; plant projects and programs; information systems; and procurement and material control for STPEGS.

5.1.5.1 The Manager, Nuclear Training; Manager, Planning and Controls; Manager, Nuclear Information Systems; Manager, Plant Projects and Programs; and Director, Nuclear Purchasing and Materials Management; report to the General Manager, Plant Services.

5.1.6 The Manager, Human Resources Nuclear is responsible for implementing quality program requirements applicable to employee relations (i.e., access authorization), employee development and organizational effectiveness, salary/compensation, and legal and personnel services.

5.1.6.1 The Manager, Employee Relations; Manager, Employee Development & Organizational Effectiveness; Supervisor, Salary/Compensation; and Supervisor, Legal & Personnel Services report to the Manager, Human Resources Nuclear.

5.1.7 The Director, Nuclear Safety and Quality Concerns Program (NSQP) is responsible for implementing quality program requirements applicable to the NSQP.

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

7.0 DOCUMENTATION

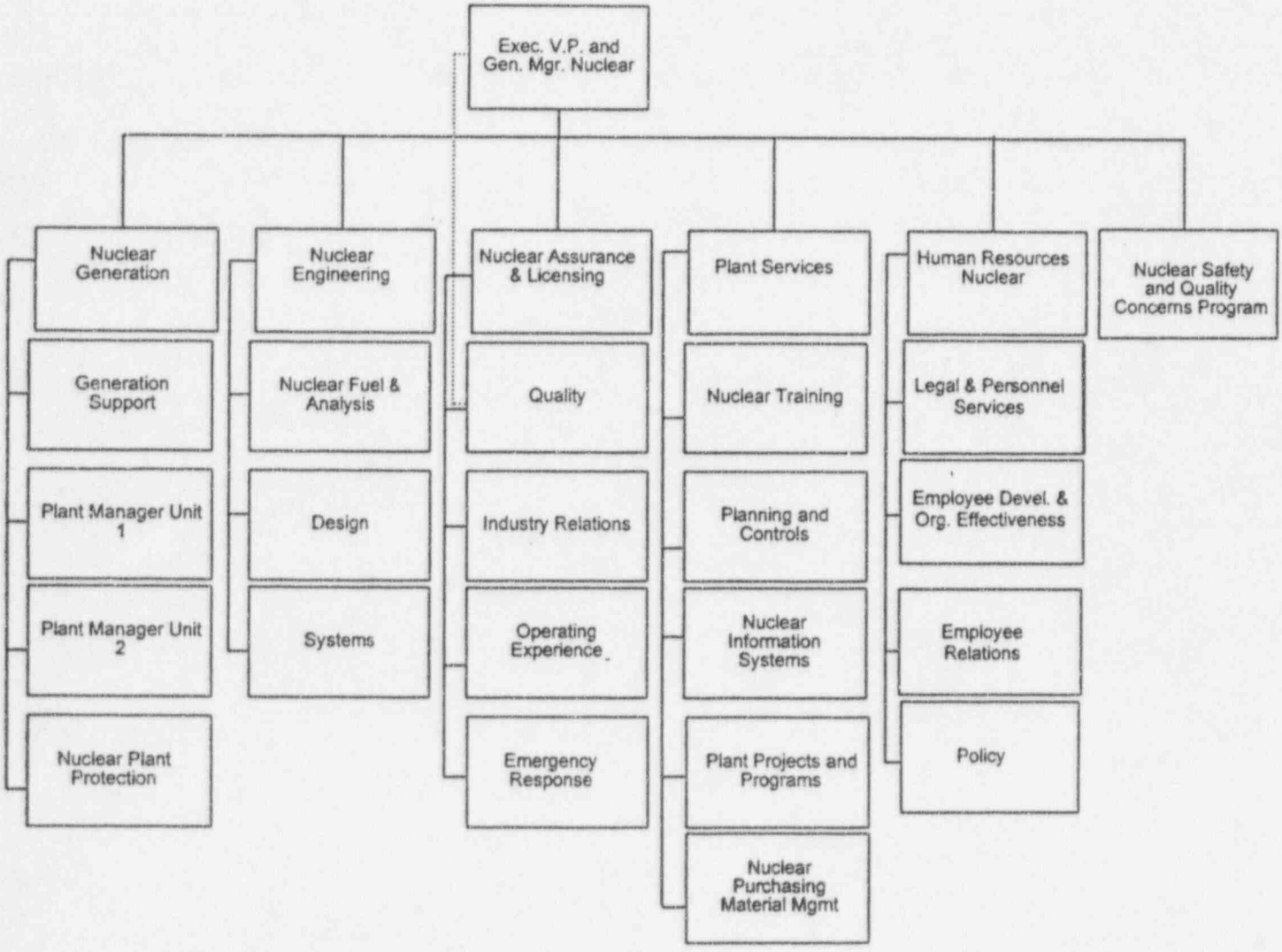
7.1 None

8.0 ATTACHMENTS

8.1 Attachment I - Nuclear Group Organization

ATTACHMENT I

NUCLEAR GROUP ORGANIZATION



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 (STPEGS).

2.0 SCOPE

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

2.2 The requirements of this chapter are applicable for items/activities designated as "Full" or "Targeted".

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 UFSAR Table 3.12-1

4.2 Part A, OQAP Chapter 3.0, Conduct of Plant Operations

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

4.4 Part A, OQAP Chapter 8.0, Control and Issuance of Documents

4.5 Part A, OQAP Chapter 12.0, Instrument and Calibration Control

4.6 Part A, OQAP Chapter 14.0, Records Control

4.7 Part A, OQAP Chapter 13.0, Deficiency Control

5.0 REQUIREMENTS

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

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

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

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

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

5.1.2.3 Assure that the equipment has been returned to 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 remedied 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 welders stamps, as appropriate.

5.5.2 Control of Outside Contractors

5.5.2.1 Qualified outside organizations may be employed to perform special processes and shall be required to conform to the requirements described in this chapter. Special process procedures submitted by an outside organization in accordance with procurement document requirements shall receive a technical review by the responsible 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 prevent the entry of extraneous material into a closed system and to ensure that foreign material is removed before the area is closed.

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

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

- Cleaning following maintenance or modification of radioactively contaminated systems or equipment 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 done including parts used.

5.7.2.3 Names of responsible persons doing work.

5.7.2.4 Traceability of parts used.

5.7.2.5 Reference to measuring and test equipment used.

5.7.2.6 Inspection and test status.

6.0 DOCUMENTATION

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

7.0 ATTACHMENTS

7.1 None

1.0 PURPOSE

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

2.0 SCOPE

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

2.2 The requirements of this chapter are applicable for items/activities designated as "Full" or "Targeted".

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 STPEGS Technical Specifications

4.2 UFSAR Table 3.12-1

4.3 UFSAR 13.5.2.1 paragraph 4, Emergency Operating Procedures

4.4 Part A, 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, as delineated in Reference 4.2.

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

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

5.1.2.1 The writter 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 (STPEGS).

2.0 SCOPE

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

2.2 The requirements of this chapter are applicable for items/activities designated as "Full" or "Targeted".

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 UFSAR Table 3.12-1

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 Part A, 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 performing activities within the scope of this document in accordance with Reference 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 QA program indoctrination

5.2.1.3 Radiological health and safety

5.2.1.4 Industrial safety and fire protection

5.2.1.5 Emergency Plan

5.2.1.6 Security program

5.2.2 Temporary personnel employed at the STPEGS shall be trained in the above areas to the extent necessary to 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 4.2 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 the requirements and responsibilities for design and modification control of structures, systems, or components at the South Texas Project Electric Generating Station (STPEGS).

2.0 SCOPE

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

2.2 The requirements of this chapter are applicable for items/activities designated as "Full" or "Targeted".

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 STPEGS Technical Specifications

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

4.3 Part A, OQAP Chapter 14.0, Records Control

4.4 10CFR50.59, Changes, Tests and Experiments

4.5 Part A, OQAP Chapter 13.0, Deficiency Control

4.6 Part A, OQAP Chapter 2.0, Program Description

4.7 UFSAR Table 3.12-1

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 10CFR50.59.

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

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

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

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

5.2.4 A review for application suitability of materials, parts, equipment, and processes essential to the functions of 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.

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 Errors and deficiencies 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 the recurrence of deficiencies, 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 original design bases and requirements, unless changed by GQA categorization.

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

6.0 DOCUMENTATION

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

7.0 ATTACHMENTS

7.1 None

1.0 PURPOSE

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

2.0 SCOPE

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

2.2 The requirements of this chapter are applicable for items/activities designated as "Full" or "Targeted".

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 10CFR50, Appendix B

4.2 10CFR21, Reporting of Defects and Noncompliance

4.3 UFSAR, Table 3.12-1

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

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

4.6 Part A, OQAP Chapter 13.0, Deficiency Control

4.7 Part A, OQAP Chapter 14.0, Records Control

5.0 REQUIREMENTS

5.1 Procurement Document Preparation, Review and Control

5.1.1 Responsibility for procurement is a joint effort of all the departments within the Nuclear Group. The department requesting the 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 Nuclear Group personnel.
- Purchase requisitions shall include material and component identification requirements, drawings, specifications, standards, inspection and test requirements, and special process instructions as appropriate.
- Purchase requisitions for 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 or graded quality assurance categorization. The cognizant technical organization shall document such justifications that are not associated with Graded Quality Assurance (GQA) categorization.

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, or if identified as "basic" coverage items as a result of GQA categorization.

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 STPEGS QA Program requirements.

5.2 Procurement Document Content

5.2.1 Procurement document control measures shall assure that appropriate regulatory requirements, design bases, and other requirements are included in the procurement process. 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 GQA categorization) and be sufficient to preclude repetition of defects, unless otherwise specified and documented.

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

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

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

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

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

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

- Documentation (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 HL&P.

5.3 Bid Evaluation

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

5.4 Supplier Selection

5.4.1 Suppliers of 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 Quality, Engineering, NPMM, and STPEGS plant personnel, as appropriate. These organizations participate in the qualification evaluation of suppliers in accordance with written procedures.

5.4.1.2 Measures for the evaluation and selection of procurement sources shall be specified in procedures and may vary depending upon the complexity and 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, STPEGS records accumulated in previous procurement actions, and STPEGS product operating experience may be used in this evaluation.When other utility, contractor or cooperative utility audits/evaluations are used, the documentation will be obtained and reviewed. Supplier history shall reflect recent capability. Previous favorable experience with suppliers may be an adequate basis for judgments attesting to suppliers' capability.

- An evaluation of the 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 Director, Quality.

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

5.4.2 Each vendor on the Approved Vendors List shall be periodically evaluated by Quality as provided by Reference 4.3.

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 Director, Quality.

5.4.3 Planning of verification activities to be employed for item or service acceptance shall begin during the purchase requisition or contract preparation and review stage. The extent of the verification activities will vary and be a function of the relative safety significance, complexity of the purchased item or service, and the supplier's past performance. The verification activities may include vendor surveillance, receipt inspection, or post-installation testing. Verification activities are planned to assure conformance to procurement document requirements. Procedures shall establish the organizational responsibilities for identifying required verifications and methods, performing and documenting the verification activities.

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

5.4.3.2 Vendor surveillance inspections may be waived by the Director, Quality.

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

5.5 Receiving Inspection

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

5.5.2 Receiving inspection shall be coordinated with vendor surveillance inspection. If vendor surveillance inspection is not performed or did not address all applicable attributes, receipt inspection shall be performed and shall include the applicable additional attributes listed in ANSI N45.2.2 Section 5.2.2, except for commercial grade items dedicated by survey which shall be receipt inspected as required by the procurement document.

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

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

5.5.5 Receiving inspections shall be performed by personnel trained and qualified in accordance with Reference 4.5. Technical assistance shall be provided by Nuclear Generation or Nuclear Engineering as applicable.

5.5.6 Receiving inspection activities shall include:

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

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

5.5.6.3 Inspecting or testing, where appropriate, using approved procedures and calibrated tools, gauges, and measuring equipment for verification acceptance of items, including off-the-shelf items.

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

5.5.6.5 Received items which do not conform to procurement documents are controlled and segregated (if practical) and processed in accordance with Reference 4.6.

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 Managers, STPEGS, and is witnessed by Quality 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
- Supplier audit
- Source inspection
- 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 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 are periodically evaluated by audits, independent inspections, surveys, or tests to assure that they are valid and results are documented. When acceptance is based upon supplier audit or vendor surveillance, documented evidence shall be furnished to the plant receiving organization.

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

5.6.2 The STPEGS 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

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION	NUMBER Chapter 8.0	REV. NO. 5
OPERATIONS QUALITY ASSURANCE PLAN	PAGE 1 OF 3	
CONTROL AND ISSUANCE OF DOCUMENTS	EFFECTIVE DATE 08-01-96	

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 (STPEGS).

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 STPEGS. These documents include, but are not limited to, instructions; procedures; specifications; drawings; vendor manuals; status registers (such as drawing lists, equipment list); procurement documents; design documents; design change requests; as-built documents; non-conformance and deficiency reports; Updated Final Safety Analysis Report and program manuals (such as OQAP, Emergency Plan, Inservice Inspection Plan, etc.).

2.2 The requirements of this chapter are applicable for items/activities designated as "Full" or "Targeted".

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 Part A, OQAP Chapter 6.0, Design and Modification Control

4.2 Part A, OQAP Chapter 14.0, Records Control

5.0 REQUIREMENTS

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

5.2 Departments responsible for program-implementing documents shall be required to provide and assure the necessary review and approval, prior to use, for instructions, procedures, and drawings. Review and approval assures that issued documents include proper quality and technical requirements, and are correct for their intended use. Additionally, individual departments are responsible for controlling documents generated or reviewed in the department for which the department has preparation and final approval or external interface responsibility.

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

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

5.4.1 Establishing current and updated distribution lists.

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

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

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

5.4.5 Temporary changes to procedures.

5.5 Documents shall be available and used at work locations by individuals or organizations performing 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 Procedure reviews shall be performed:

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

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

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

5.9 Control of design documents is addressed in Reference 4.1.

6.0 DOCUMENTATION

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

7.0 ATTACHMENTS

7.1 None

1.0 PURPOSE

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

2.0 SCOPE

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

2.2 The requirements of this chapter are applicable for items/activities designated as "Full" or "Targeted".

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 UFSAR Table 3.12-1

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

4.3 Part A, OQAP Chapter 7.0, Procurement

4.4 Part A, OQAP Chapter 14.0, Records Control

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 the intent of the requirements of Reference 4.1. Storage conditions commensurate with the safety classification of the materials will be maintained.

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

5.4 Material Handling

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

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

5.5 Shipping

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

5.6 Housekeeping

5.6.1 Measures shall be established for housekeeping activities in the warehouse areas which include: zone designation, environment control, work area cleanliness, fire protection, inspection, and surveillance. These measures shall meet the requirements of Reference 4.1.

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

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION	NUMBER Chapter 10.0	REV. NO. 7
OPERATIONS QUALITY ASSURANCE PLAN	PAGE 1 OF 5	
INSPECTION	EFFECTIVE DATE 08-01-96	

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 (STPEGS).

2.2 The requirements of this chapter are applicable for items/activities designated as "Full" or "Targeted".

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

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

4.2 Part A, OQAP Chapter 12.0, Instrument and Calibration Control

4.3 Part A, OQAP Chapter 14.0, Records Control

5.0 REQUIREMENTS

5.1 Inspection

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

5.1.1.1 Identification of characteristics and activities to be inspected

5.1.1.2 Acceptance and rejection criteria

5.1.1.3 Inspection process utilized

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

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

5.1.2 Examples of the activities subject to inspection include:

5.1.2.1 Special processes

5.1.2.2 Modifications

5.1.2.3 Receipt of materials, parts and components

5.1.2.4 Maintenance

5.1.2.5 Packaging, shipping and handling of radioactive waste material

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

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

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

5.1.4 Process Monitoring

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

5.1.5 Supporting Inspections

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

5.1.6 Mandatory Inspections

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

5.1.6.2 Quality 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 Quality involvement may be desired.

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

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

5.1.8.1 Item inspected

5.1.8.2 Date of inspection

5.1.8.3 Inspector

5.1.8.4 Type of observation/inspection

5.1.8.5 Results and acceptability

5.1.8.6 Reference to information on action taken in connection with nonconformances

5.1.8.7 Test equipment used

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

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

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

5.1.12 Acceptance

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

5.2 Nondestructive Examination (NDE)

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

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

5.3 Inspection Status

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

6.0 DOCUMENTATION

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

7.0 ATTACHMENTS

7.1 None

1.0 PURPOSE

1.1 The purpose of this chapter is to establish requirements for testing of 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.

2.2 The requirements of this chapter are applicable for items/activities designated as "Full" or "Targeted".

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

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

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

4.3 Part A, OQAP Chapter 12.0, Instrument and Calibration Control

4.4 Part A, OQAP Chapter 14.0, Records Control

5.0 REQUIREMENTS

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

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

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

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

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

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

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

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

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

5.4.4 Provisions for documenting or recording test data and results

5.4.5 Acceptance criteria.

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

5.4.7 Provisions for assuring the test prerequisites have been met.

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

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

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

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

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

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

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

5.9 Test records, where applicable, shall include:

5.9.1 Identification of items or systems tested.

5.9.2 Date of test.

5.9.3 Tester and data recorder identification.

5.9.4 Type of observation/test.

5.9.5 Test results and acceptability.

5.9.6 References to nonconformances and action taken.

5.9.7 Person reviewing and evaluating test results.

5.9.8 Test equipment used.

6.0 DOCUMENTATION

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

7.0 ATTACHMENTS

7.1 None

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION	NUMBER Chapter 12.0	REV. NO. 6
OPERATIONS QUALITY ASSURANCE PLAN	PAGE 1 OF 3	
INSTRUMENT AND CALIBRATION CONTROL	EFFECTIVE DATE 08-01-96	

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 (STPEGS).

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.

2.2 The requirements of this chapter are applicable for items/activities designated as "Full" or "Targeted".

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

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

4.2 Part A, OQAP Chapter 14.0, Records Control

5.0 REQUIREMENTS

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

5.2 Procedures shall be developed for the control and calibration of measuring and test equipment at prescribed intervals or prior to use. Reference standards having known valid relationships to national standards shall be used. Each organization shall be responsible for assuring that the measuring and test equipment (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 is found out of calibration, an evaluation shall be made and documented for the validity of previous inspection and test results and for the acceptability of items previously inspected or tested.

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

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

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

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

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

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

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

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

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

6.0 DOCUMENTATION

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

7.0 ATTACHMENTS

7.1 None

1.0 PURPOSE

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

2.0 SCOPE

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

2.2 The requirements of this chapter are applicable for items/activities designated as "Full" or "Targeted".

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 10CFR50, Appendix B

4.2 10CFR21, Reporting of Defects and Noncompliance

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

4.4 10CFR50.73, Licensee Event Report System

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

4.6 Part A, OQAP Chapter 14.0, Records Control

4.7 UFSAR Table 3.12-1

5.0 REQUIREMENTS

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

5.2 Procedures shall be developed for the control of items, services or activities which do not conform to established requirements. These procedures shall provide for the following:

5.2.1 Identification and documentation of the deficient condition.

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

5.2.3 Notification of responsible management.

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

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

5.2.5.1 Material nonconformance disposition categories are:

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

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

5.2.5.3 Evaluations shall be performed to ascertain recurrence control measures.

5.2.6 Documentation of the corrective action taken.

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

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

5.2.9 Installation of nonconforming material, parts, and components may be performed after the effect of their installation has been evaluated and the installation approved by Plant Management and Engineering. Nonconforming items which may not be installed are those which, because of their makeup and intended use, cannot be repaired or reworked after being installed and those which, if installed and later removed, would degrade that system, structure, or component. 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 Nonconformances 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 of deficiencies:

5.3.1 Unique identification and numbering of deficiencies.

5.3.2 Preparing and maintaining status reporting of deficiencies.

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

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

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

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

5.7 Measures shall be established for the evaluation and trending of plant deficiencies. The results of these reviews and analyses are reported to the affected organization and executive management, and are audited by the Quality organization. Adverse trends shall be evaluated and processed in accordance with controlling 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 Reference 4.6.

7.0 ATTACHMENTS

7.1 None

1.0 PURPOSE

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

2.0 SCOPE

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

2.2 The requirements of this chapter are applicable for items/activities designated as "Full" or "Targeted".

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 UFSAR Table 3.12-1

5.0 REQUIREMENTS

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

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

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

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

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

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

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

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

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

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

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

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

6.0 DOCUMENTATION

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

7.0 ATTACHMENTS

7.1 None

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION	NUMBER Chapter 15.0	REV. NO. 6
OPERATIONS QUALITY ASSURANCE PLAN	PAGE 1 OF 7	
QUALITY ASSURANCE OVERVIEW ACTIVITIES	EFFECTIVE DATE 08/01/96	

1.0 PURPOSE

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

2.0 SCOPE

2.1 This chapter provides for implementing a program of independent overview activities which includes audits, assessments, evaluations, performance monitoring, and surveillances to ensure the requirements of the Operations Quality Assurance Program are being properly implemented.

2.2 The requirements of this chapter are applicable for items/activities designated as "Full" or "Targeted".

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 UFSAR Table 3.12-1

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

4.3 Part A, OQAP Chapter 7.0, Procurement

4.4 Part A, OQAP Chapter 13.0, Deficiency Control

4.5 Part A, OQAP Chapter 14.0, Records Control

5.0 REQUIREMENTS

5.1 Independent Overview Activities

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

5.2.1.1 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. If a decision is made to extend an audit beyond that nominal frequency, the basis for that decision shall be documented.

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 QA 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 audit deficiencies.

5.2.5.6 Audit reports shall be prepared and submitted to the audited organization 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 deficiencies and follow-up verification as appropriate.

5.3 Quality Performance Monitoring

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

5.3.2 Quality performance monitoring activities will be performed on both units 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 site quality performance monitoring activities is based upon the complexity of the activity, importance of the activity, and severity level of conditions noted during previous overview activities.

5.3.4 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 Nuclear Assurance & Licensing's implementation of the Operations Quality Assurance Program.

5.4.1.1 These assessments will be conducted by organizations independent of the activities performed to assure the HL&P 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 Executive Vice President and General Manager, Nuclear.

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.

5.4.3 Assessments and audits may be interchangeable provided the scope is appropriate and approved by the Director, Quality.

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

5.5.1 Activities/organizations to be overviewed.

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

5.6 Nonconforming equipment, components, parts, materials, activities or documentation identified during an independent overview activity shall be documented in accordance with Reference 4.4.

5.7 Personnel performing independent overview 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

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION OPERATIONS QUALITY ASSURANCE PLAN TABLE OF CONTENTS PART B	NUMBER Table of Contents	REV. NO. 0
	PAGE 1 OF 2	
	EFFECTIVE DATE 08-01-96	

Chapter Number	Title	Effective Chapter Revision	Effective Revision Date	Change Notice No.
	Definitions	See Part A		
1.0	Organization	See Part A		
2.0	Program Description	See Part A		
3.0	Design Control	0	08-01-96	
4.0	Procurement Document Control	0	08-01-96	
5.0	Instructions, Procedures, and Drawings	0	08-01-96	
6.0	Document Control	0	08-01-96	
7.0	Control of Purchased, Equipment, and Services	0	08-01-96	
8.0	Identification and Control of Materials, Parts, and Components	0	08-01-96	
9.0	Control of Special Processes	0	08-01-96	
10.0	Inspection	0	08-01-96	
11.0	Test Control	0	08-01-96	
12.0	Control of Measuring and Test Equipment	0	08-01-96	
13.0	Handling, Storage and Shipping	0	08-01-96	
14.0	Inspection, Test, and Operating Status	0	08-01-96	

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION OPERATIONS QUALITY ASSURANCE PLAN TABLE OF CONTENTS PART B	NUMBER Table of Contents	REV. NO. 0
	PAGE 2 OF 2	
	EFFECTIVE DATE 08-01-96	

Chapter Number	Title	Effective Chapter Revision	Effective Revision Date	Change Notice No.
15.0	Nonconforming Materials, Parts, or Components	0	08-01-96	
16.0	Corrective Action	0	08-01-96	
17.0	Quality Assurance Records	0	08-01-96	
18.0	Quality Assurance Audits	0	08-01-96	

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 (STPEGS).

2.0 SCOPE

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

2.2 The requirements of this chapter are applicable for items/activities designated as "Basic".

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 STPEGS Technical Specifications

4.2 10CFR50.59, Changes, Tests and Experiments

4.3 Part A,OQAP Chapter 2.0, Program Description

4.4 Part B, OQAP Chapter 15.0, Nonconforming Materials, Parts, and Components

4.5 Part B, OQAP Chapter 17.0, Quality Assurance Records

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 4.2.

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 control measures shall be applied to activities involving reactor physics, stress, thermal, hydraulic, and accident analysis; compatibility of materials accessibility for inservice inspection, maintenance, and repair; and delineation of acceptance criteria for inspections and tests. 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 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.

5.3 Measures shall be established to identify and control design interfaces and coordination among participating organizations (internal and external). Procedures shall be established to control the review, approval, release, distribution, and revision of documents involving design interfaces.

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 qualification testing, it shall be performed on a prototype unit under conditions that simulate the most adverse design conditions.

5.4.2 Design verification shall be performed by individuals or groups other than those who performed the original design, but who may be from the same organization.

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 subject to design control measures commensurate with those applied to the original design and shall be approved by the organization that performed the original design. 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.

5.6.1 Measures shall be established to control maintenance and modifications associated with design changes.

5.7 Modifications

5.7.1 Modifications to structures, systems, and components shall be controlled, reviewed, and approved.

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

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

5.8 Errors and deficiencies 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 the recurrence of deficiencies, in accordance with Reference 4.4.

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

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION	NUMBER Chapter 4.0	REV. NO. 0
OPERATIONS QUALITY ASSURANCE PLAN	PAGE 1 OF 2	
PROCUREMENT DOCUMENT CONTROL	EFFECTIVE DATE 08-01-96	

1.0 PURPOSE

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

2.0 SCOPE

2.1 The requirements of this chapter are applicable for items/activities designated as "Basic".

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 10CFR50, Appendix B

4.2 Part B, OQAP Chapter 15.0, Nonconforming Materials, Parts, and Components

4.3 Part B, OQAP Chapter 17.0, Quality Assurance Records

5.0 REQUIREMENTS

5.1 Procurement Document Preparation, Review and Control

5.1.1 Responsibility for procurement is a joint effort of all the departments within the Nuclear Group. The department requesting the material or service provides technical content. Design Engineering is responsible to review the request for technical content and quality requirements. Quality will concur with all changes to quality requirements.

5.1.2 The sequence of preparation, review, approval, and issuance of procurement documents shall be controlled in accordance with implemeting procedures.

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.

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.

5.3 Deficiencies applicable to procurement document control shall be documented and processed 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 4.3.

7.0 ATTACHMENTS

7.1 None

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION	NUMBER Chapter 5.0	REV. NO. 0
OPERATIONS QUALITY ASSURANCE PLAN	PAGE 1 OF 2	
INSTRUCTIONS, PROCEDURES, AND DRAWINGS	EFFECTIVE DATE 08-01-96	

1.0 PURPOSE

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

2.0 SCOPE

2.1 This chapter is applicable to documents which 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 condition reports; Updated Final Safety Analysis Report and program manuals.

2.2 The requirements of this chapter are applicable for items/activities designated as "Basic".

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 10CFR50, Appendix B

4.2 Part B, OQAP Chapter 17.0, Quality Assurance Records

5.0 REQUIREMENTS

5.1 Activities affecting licensing, operation, testing, maintenance, and modification shall be performed in accordance with instructions, procedures, or drawings.

5.2 These documents shall identify quantitative or qualitative acceptance criteria for determining that activities are performed and completed satisfactorily.

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 define criteria and establish administrative controls for implementation of the Quality Assurance (QA) Program for the South Texas Project Electric Generating Station (STPEGS).

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 components, and activities to an extent consistent with their importance to safety, and complies with the requirements of 10CFR50, Appendix B and other program commitments as appropriate.

Graded Quality Assurance is one element of STP's Comprehensive Risk Management (CRM) Program. Graded Quality Assurance provides the process by which risk-based methodology [i.e., Probabilistic Safety Assessment (PSA)] and performance-based information analyses are combined to provide direction as to what levels of programmatic controls are needed for systems, components or activities, and as to the levels of first line and independent oversight needed to provide necessary assurance that items will operate safely and activities are accomplished as prescribed. The CRM Program is implemented by Working Groups who provide risk-informed, performance-based recommendations to an Expert Panel. The Expert Panel is a multi-discipline group comprised of high-level management representing Design and Systems Engineering, Nuclear Licensing, Industry Relations, Risk and Reliability Analysis, Quality, and Plant Management. The Expert Panel is chartered with guiding the implementation of the CRM Program.

The QA Program is implemented in a "graded" manner, and is comprised of two separate and distinct programs, which are implemented in three graded applications (i.e. "Full", "Targeted", and "Basic"). Part A of the OQAP represents the program implementation requirements for both "Full" and "Targeted" application. Part B of the OQAP represents the program implementation requirements for "Basic" application.

"Full" program controls are applied for items and activities determined to be "high" safety significant/risk important.

"Targeted" program controls are applied for items and activities which, while not being "high" safety significant/risk important, are determined to be significant/important for other reasons. "Full" program controls will be applied in a selected manner and specifically "Targeted" at those characteristics/attributes of the item or activity which render it significant or important.

"Basic" program controls are applied for items and activities which, while not being "high" safety significant/risk important or significant/important for other reasons, are nevertheless subject to the controls of 10CFR50, Appendix B.

NOTE: An analysis of items and activities to determine which level of program controls are appropriate must be completed prior to designation as "Targeted" or "Basic". Until these analyses are complete, "Full" progam controls will be applied across the board.

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, 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 Full program controls - The highest levels of program controls and oversight that are to be afforded to items and activities determined to be "high" safety significant/risk important. These are in full compliance with the requirements of 10CFR50, Appendix B, and additionally represent compliance with the applicable STP UFSAR commitments relative to USNRC Regulatory Guides and ANSI Standards which they endorse. These controls provide the highest levels of program controls and line/independent oversight and are designed to provide a high degree of assurance that items perform safely and activities are accomplished as expected.

3.2 Targeted program controls - A level of program controls and oversight applied to items and activities which, while not being "high" safety significant/risk important, are nevertheless significant/important for other reasons. These controls are selected elements of the "Full" program which are specifically applied to those characteristics/attributes of items or activities which render them significant/important. These controls provide a high degree of assurance that the items will perform their specific function and the important elements of the activities are accomplished as expected.

3.3 Basic program controls - Program controls applied to items and activities which, while not being "high" safety significant/risk important or significant/important for other reasons, are nevertheless subject to the controls of 10CFR50 Appendix B. These controls are defined as good business practices which reflect the most economical and efficient means of conducting business and are designed to provide assurance that items perform, and activities are accomplished, as expected. They do not necessarily reflect the highly prescriptive, strict controls as depicted in USNRC Regulatory Guides and the ANSI standards they endorse.

4.0 REFERENCES

4.1 10CFR50, Appendix B

4.2 10CFR71, Subpart H

4.3 ASME B&PV Code

4.4 Part A, OQAP Chapter 14.0, Records Control

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

4.6 UFSAR Table 3.12-1

5.0 REQUIREMENTS

5.1 The OQAP is prepared to prescribe the STPEGS QA Program.

5.1.1 The OQAP shall provide quality program policies to be implemented for the STPEGS. The OQAP assigns responsibilities necessary for the attainment of quality assurance objectives and the verification of conformance to established requirements.

5.1.2 The QA Program shall be in effect throughout the operating life of the STPEGS.

5.1.3 The Executive Vice President and General Manager, Nuclear has overall responsibility for quality assurance.

5.1.4 The General Manager, Nuclear Assurance and Licensing (NA&L), is responsible for the development of the OQAP.

5.2 Organizational Independence

5.2.1 The reporting arrangement utilized by the NA&L Organization ensures that those personnel performing independent assessments 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 that work.

5.3 QA Program

5.3.1 The operations phase of the STPEGS includes testing, operation, maintenance, refueling, inservice inspection, and modification. The OQAP requires that HL&P, its contractors, subcontractors, and vendors 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.

It is the intent of HL&P to comply, as applicable, with the applicable American National Standards Institute (ANSI) N45.2 daughter standards, ANSI N18.7, and implementing Regulatory Guides (RG) as defined herein and in Updated Final Safety Analysis Report (UFSAR) Table 3.12-1.

5.4 Delegation of QA Functions

5.4.1 The OQAP may be executed in whole or part by subcontract personnel. However, STPEGS will retain responsibility for the total quality assurance program, and NA&L personnel will perform appropriate overview activities of any subcontracted activities.

5.5 Identification of Safety Significant Systems, Components, and Activities

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 STPEGS OQAP, Part B is applied.

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

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

5.8.2 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 General Manager, Nuclear Assurance & Licensing or Director, Quality shall present the problem to the Executive Vice President and General Manager, Nuclear, 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 STPEGS 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 overview activities. The Quality organization shall conduct independent overview activities of the operating plant and of the interfacing organizations' activities.

5.10.2 Assessments of HL&P's implementation of the OQAP are conducted under the cognizance of the Nuclear Safety Review Board and results are transmitted to the Executive Vice President and General Manager, Nuclear for review and/or action.

5.10.3 STPEGS may use the services of architect-engineer firms, Nuclear Steam Supply System (NSSS) suppliers, fuel fabricators, constructors, and others which provide or augment STPEGS efforts during operations. 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 Operations Quality Assurance Plan Changes

5.11.1 HL&P is committed to maintaining the OQAP as an effective and meaningful document to provide programmatic direction on STPEGS. Changes to the OQAP will be processed under 10CFR50.54(a).

5.12 Computer Code Programs

5.12.1 The development, control, 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 None

1.0 PURPOSE

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

2.0 SCOPE

2.1 The requirements of this chapter are applicable for items/activities designated as "Basic".

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 10CFR50, Appendix B

4.2 Part B, OQAP Chapter 17.0, Quality Assurance Records

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.

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.

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

5.4.1 Establishing current and updated distribution lists.

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

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

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

5.4.5 Temporary changes to procedures.

5.5 Documents shall be available and used at work locations by individuals or organizations performing 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. 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 Procedures shall be developed for the control and distribution of vendor/contractor documents such as approved drawings, specifications, technical manuals and instructions.

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 the requirements for control of purchased material, equipment, and services for the South Texas Project Electric Generating Station (STPEGS).

2.0 SCOPE

2.1 The requirements of this chapter are applicable for items/activities designated as "Basic".

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 10CFR50, Appendix B

4.2 Part B, OQAP Chapter 4.0, Procurement Document Control

4.3 Part B, OQAP Chapter 16.0, Corrective Action

4.4 Part B, OQAP Chapter 17.0, Quality Assurance Records

5.0 REQUIREMENTS

5.1 Measures shall be established to assure purchased material, equipment, and services, whether purchased directly or through contractors and subcontractors, conform to requirements set forth in procurement documents.

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

5.3 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.

5.4 Procurement source evaluations involve a review of technical and quality considerations to an extent considered appropriate by each participant.

5.5 For Commercial Grade Items to be dedicated for use using vendor program controls as one of the bases for dedication, an evaluation should be performed to assure the program provides adequate control over established critical characteristics.

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

5.7 Contractors and subcontractors shall be assessed at intervals consistent with the importance, complexity, and quantity of the product or services.

5.8 Verification activities may include vendor surveillance, receipt inspection, or post-installation testing. Procedures shall establish the organizational responsibilities for identifying required verifications and methods, performing and documenting the verification activities.

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

5.10 Received purchased material and equipment shall be inspected in accordance with applicable requirements identified in procurement documentation.

5.11 Receiving inspections shall be performed by trained and qualified personnel.

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

- Written certifications
- Supplier audit
- Source inspection
- Receiving inspection/testing
- Commercial Grade Item dedication
- Vendor surveillance

- Post-installation test

5.13 Documented evidence from the supplier that procured items meet procurement quality requirements such as codes, standards, or specifications will be maintained at the plant site. Such evidence shall be provided by the supplier, at the time of source or receipt inspection, for review and verification before acceptance. The documented evidence will be retrievable and available at the plant site prior to installation or use of the procured item, unless otherwise controlled in accordance with Reference 4.2.

5.14 Suppliers are periodically evaluated by audits, independent inspections, surveys, or tests to assure the effectiveness of the control of quality. When acceptance is based upon supplier audit or vendor surveillance, documented evidence shall be furnished to the plant receiving organization.

5.15 The Quality overview activities provide for periodic audits or surveys of suppliers, the site procurement program, contractors, subcontractors, and others performing work. Frequency of these surveys and audits is based upon the safety, complexity, and quality requirements.

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 describe requirements for identification and control of materials, parts, and components at the South Texas Project Electric Generating Station (STPEGS).

2.0 SCOPE

2.1 The requirements of this chapter are applicable for items/activities designated as "Basic".

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 10CFR50, Appendix B

4.2 Part B, OQAP Chapter 17.0, Quality Assurance Records

5.0 REQUIREMENTS

5.1 Material, parts, and components, including partially fabricated assemblies shall be controlled to assure that the identification of items is maintained.

5.2 Physical identification of material (including consumables), parts, and components shall be used whenever possible or practical or on records traceable to the item as required throughout fabrication, erection, installation, and use of the item.

5.3 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.

5.4 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).

5.5 Procedures shall specify that identification be maintained, either on the item or on records traceable to the item. This identification shall be verified and documented prior to release for fabrication, erection, installation and/or use of 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 4.2.

7.0 ATTACHMENTS

7.1 None

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION	NUMBER Chapter 9.0	REV. NO. 0
OPERATIONS QUALITY ASSURANCE PLAN CONTROL OF SPECIAL PROCESSES	PAGE 1 OF 2	
	EFFECTIVE DATE 08-01-96	

1.0 PURPOSE

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

2.0 SCOPE

2.1 The requirements of this chapter are applicable for items/activities designated as "Basic".

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 10CFR50, Appendix B

4.2 Part B, OQAP Chapter 17.0, Quality Assurance Records

5.0 REQUIREMENTS

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.

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

5.3 Special processes shall be performed by qualified personnel using qualified procedures.

5.4 Personnel shall be qualified in accordance with applicable codes, standards, specifications, criteria, and other special requirements.

5.5 Procedures and equipment shall be qualified under applicable codes and standards, or if not covered, the qualification requirements shall be defined.

5.6 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.

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

5.8 Control of Outside Contractors

5.8.1 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.

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 prescribe the requirements for inspection at the South Texas Project Electric Generating Station (STPEGS).

2.0 SCOPE

2.1 The requirements of this chapter are applicable for items/activities designated as "Basic".

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 10CFR50, Appendix B

4.2 Part B, OQAP Chapter 12.0, Control of Measuring and Test Equipment

4.3 Part B, OQAP Chapter 17.0, Quality Assurance Records

5.0 REQUIREMENTS

5.1 An inspection program shall be established by or for the organization performing the activity to verify conformance with documented instructions, procedures, or drawings.

5.2 The inspection criteria established for performing inspections and the detail of the inspection process shall be determined based on recognized codes, standards, accepted industry practice, or specific item/activity characteristics.

5.3 Personnel performing inspections shall be other than those who performed the activity being inspected.

5.4 Examples of the activities subject to inspection include:

5.4.1 Special processes

5.4.2 Modifications

5.4.3 Receipt of materials, parts and components

5.4.4 Maintenance

5.4.5 Packaging, shipping and handling of radioactive waste material

5.5 When direct inspection of processed items is impossible or disadvantageous, indirect control by monitoring processing methods, equipment, and personnel shall be provided.

5.6 Both inspections and process monitoring shall be used when control of the activity is inadequate without both.

5.7 Mandatory inspection holdpoints shall be witnessed or inspected by designated personnel before work can proceed. Plant procedures and work instructions shall be reviewed by responsible personnel for concurrence with the established mandatory hold points.

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

5.8.1 Item inspected

5.8.2 Date of inspection

5.8.3 Inspector

5.8.4 Type of observation/inspection

5.8.5 Results and acceptability

5.8.6 Reference to conditions adverse to quality and actions taken

5.8.7 Measuring and test equipment used

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

5.10 Nondestructive Examination (NDE)

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

5.10.2 The applicable requirements of this chapter shall apply to the performance, evaluation, and documentation of NDE results.

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

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

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION	NUMBER Chapter 11.0	REV. NO. 0
OPERATIONS QUALITY ASSURANCE PLAN	PAGE 1 OF 2	
TEST CONTROL	EFFECTIVE DATE 08-01-96	

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 The requirements of this chapter are applicable for items/activities designated as "Basic".

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

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

4.2 10CFR50, Appendix B

4.3 Part B, OQAP Chapter 12.0, Instrument and Calibration Control

4.4 Part B, OQAP Chapter 17.0, Quality Assurance Records

5.0 REQUIREMENTS

5.1 The test programs shall be developed to demonstrate that plant structures, systems, and components will perform satisfactorily in service in accordance with the requirements and acceptance limits contained in applicable design documents.

5.2 Procedures shall be developed to control tests of structures, systems, and components to assure satisfactory service.

5.3 Test programs include, as appropriate, proof tests prior to installation, preoperational tests, operational tests, surveillance tests, and equipment tests.

5.4 Test procedures shall provide for assuring that prerequisites have been met, that adequate test instrumentation is available and used, and that the test is performed under suitable environmental conditions.

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 ensure that test data and results are documented and are evaluated for compliance with applicable test acceptance criteria.

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

5.9 Test records, where applicable, shall include:

5.9.1 Identification of items or systems tested.

5.9.2 Date of test.

5.9.3 Tester and data recorder identification.

5.9.4 Type of observation/test.

5.9.5 Test results and acceptability.

5.9.6 References to conditions adverse to quality and action taken.

5.9.7 Person reviewing and evaluating test results.

5.9.8 Test equipment used.

6.0 DOCUMENTATION

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

7.0 ATTACHMENTS

7.1 None

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION	NUMBER Chapter 12.0	REV. NO. 0
OPERATIONS QUALITY ASSURANCE PLAN	PAGE 1 OF 2	
CONTROL OF MEASURING AND TEST EQUIPMENT	EFFECTIVE DATE 08-01-96	

1.0 PURPOSE

1.1 The purpose of this chapter is to establish requirements for measuring and test equipment (M&TE) and to installed instrument and control devices at the South Texas Project Electric Generating Station (STPEGS).

2.0 SCOPE

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

2.2 The requirements of this chapter are applicable for items/activities designated as "Basic".

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 10CFR50, Appendix B

4.2 Part B, OQAP Chapter 17.0, Quality Assurance Records

5.0 REQUIREMENTS

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

5.2 Procedures shall be developed for the control, calibration, and adjustment of measuring and test equipment at prescribed intervals or prior to use to maintain accuracy within necessary limits. 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 Measuring and test equipment shall be uniquely identified.

5.4 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.

5.5 The use of each item of measuring and test equipment shall be documented.

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

5.11 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 for handling, storage, and shipping of material and equipment at the South Texas Project Electric Generating Station (STPEGS).

2.0 SCOPE

2.1 The requirements of this chapter are applicable for items/activities designated as "Basic".

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 10CFR50, Appendix B

4.2 Part B, OQAP Chapter 17.0, Quality Assurance Records

5.0 REQUIREMENTS

5.1 Procedures shall be developed for handling of items which, because of weight, size, susceptibility to shock damage or other conditions, require special handling. These procedures shall include methods to rate and inspect hoisting and handling equipment.

5.2 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. Storage conditions commensurate with established risk significance of the materials will be maintained.

5.2.1 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.

5.3 Measures shall be established for the packaging, loading and transportation of items off-site.

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

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION	NUMBER Chapter 14.0	REV. NO. 0
OPERATIONS QUALITY ASSURANCE PLAN	PAGE 1 OF 2	
INSPECTION, TEST, AND OPERATING STATUS	EFFECTIVE DATE 08-01-96	

1.0 PURPOSE

1.1 The purpose of this chapter is to describe the requirements for indicating and maintaining the inspection, test, and operating status of items and activities at the South Texas Project Electric Generating Station (STPEGS).

2.0 SCOPE

2.1 The requirements of this chapter are applicable for items/activities designated as "Basic".

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 10CFR50, Appendix B

4.2 Part B, OQAP Chapter 17.0, Quality Assurance Records

5.0 REQUIREMENTS

5.1 Procedures shall provide for control of equipment as necessary to maintain personnel and plant 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.

5.2 Procedures shall provide for the identification of required tests and inspections and provide documentary evidence that the tests and inspections have been performed to preclude inadvertent bypassing of such activities and to indicate satisfactory completion prior to considering the affected system operable.

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

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION	NUMBER Chapter 15.0	REV. NO. 0
OPERATIONS QUALITY ASSURANCE PLAN	PAGE 1 OF 3	
NONCONFORMING MATERIALS, PARTS, OR COMPONENTS	EFFECTIVE DATE 08-01-96	

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 nonconforming materials, parts, or components.

2.0 SCOPE

2.1 This chapter applies to deficiencies discovered in items, services and activities under the scope of the Operations Quality Assurance Plan.

2.2 The requirements of this chapter are applicable for items/activities designated as "Basic".

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 10CFR50, Appendix B

4.2 Part B, OQAP Chapter 17.0, Quality Assurance Records

5.0 REQUIREMENTS

5.1 Personnel working under the jurisdiction of the Operations Quality Assurance Plan are responsible for reporting identified 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 the 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 the deficient item or activity by tagging, segregation, administrative controls, or other appropriate means to prevent inadvertent installation, use, or continuation of the deficient activity and removal of such controls when the item is returned to service or availability.

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

5.2.5.1 Material disposition categories are:

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

5.3 Procedures shall provide the following administrative controls of conditions adverse to quality:

5.3.1 Unique identification and numbering of identified conditions.

5.3.2 Preparing and maintaining status reporting of conditions.

5.3.3 Actions to be taken to assure timely corrective action.

5.4 Measures shall be established for review and evaluation of conditions adverse to quality for reportability to the NRC.

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

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

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION OPERATIONS QUALITY ASSURANCE PLAN CORRECTIVE ACTION	NUMBER Chapter 16.0	REV. NO. 0
	PAGE 1 OF 2	
	EFFECTIVE DATE 08-01-96	

1.0 PURPOSE

1.1 The purpose of this chapter is to describe the requirements for the corrective action program at the South Texas Project Electric Generating Station (STPEGS).

2.0 SCOPE

2.1 The requirements of this chapter are applicable for items/activities designated as "Basic".

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 10CFR50, Appendix B

4.2 Part B, OQAP Chapter 17.0, Quality Assurance Records

5.0 RESPONSIBILITIES

5.1 The Corrective Action Program shall be implemented in accordance with approved procedures and provide for the prompt identification and correction of conditions adverse to quality, such as, failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances.

5.2 Procedures which identify and track conditions adverse to quality shall require management review of each report to determine if the condition is significant..

5.3 Requirements shall assure that for significant conditions adverse to quality, the cause of the condition is determined and corrective action taken to preclude repition.

5.4 The identification, cause, and corrective action for significant conditions adverse to quality shall be reported to the appropriate levels of management.

5.5 Measures shall be established for the evaluation and trending of conditions adverse to quality.

5.6 The results of these reviews and analyses are reported to the affected organization and executive management, and are subject to overview activities performed by the Quality organization. Adverse trends shall be evaluated and processed in accordance with controlling 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 Reference 4.2.

7.0 ATTACHMENTS

7.1 None

1.0 PURPOSE

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

2.0 SCOPE

2.1 The requirements of this chapter are applicable for items/activities designated as "Basic".

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 10CFR50, Appendix B

5.0 REQUIREMENTS

5.1 Sufficient records shall be collected, filed, stored, maintained, and dispositioned to furnish objective evidence that items and activities are in compliance with applicable requirements.

5.2 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.

5.3 Inspection and test records shall, at a minimum, contain the identification of inspector or data recorder; a description of the type of observation; inspection or test results; acceptability of the results; and reference any action taken in documenting or resolving any conditions adverse to quality.

5.4 These records shall be identifiable and retrievable.

5.3 Additional requirements concerning record retention activities, such as duration, location, and assigned responsibility shall be defined in implementing 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 audit activities for the South Texas Project Electric Generating Station (STPEGS).

2.0 SCOPE

2.1 This chapter provides for implementing an audit program to ensure the requirements of the Operations Quality Assurance Program are being properly implemented.

2.2 The requirements of this chapter are applicable for items/activities designated as "Basic".

3.0 DEFINITIONS

3.1 None

4.0 REFERENCES

4.1 10CFR50 Appendix, B

4.2 Part B, OQAP Chapter 15.0, Nonconforming Materials, Parts, or Components

4.3 Part B, OQAP Chapter 16.0, Corrective Action

4.4 Part B, OQAP Chapter 17.0, Quality Assurance Records

5.0 REQUIREMENTS

5.1 Audits

5.1.1 A comprehensive audit program in compliance with Reference 4.1 shall be established and implemented by HL&P to verify internal and external quality activity compliance with the Operations QA Program. The audit program shall assure that applicable elements of the quality assurance program have been developed, documented, and are effectively implemented.

5.1.2 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 applicable requirements.

5.1.3 Audit implementation shall include the following:

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

5.1.3.2 Documentation of audit results.

5.1.3.3 Identifying and documenting conditions adverse to quality.

5.1.3.4 Audit reports shall be prepared and submitted to the audited organization.

5.1.3.5 Audited organizations provide for corrective action in accordance with Reference 4.3.

5.1.3.6 Evaluation of corrective action and follow-up verification as appropriate.

5.2 Audit activities will be planned and scheduled in accordance with implementing procedures. Audits are scheduled on a nominal biennial frequency. If a decision is made to extend an audit beyond that nominal frequency, the basis for that decision shall be documented.

5.3 Nonconforming equipment, components, parts, materials, activities or documentation identified during an independent overview activity shall be documented 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 4.4.

7.0 ATTACHMENTS

7.1 None

ATTACHMENT 2

COMPREHENSIVE RISK MANAGEMENT PROCEDURE - DRAFT

J:\PSA\WZA0000.00M g:\wp\ Effective date: 00/00/00 Print: 3/26/96	0PGP02-ZA-0003	Rev. 0	Page 1 of 17
Comprehensive Risk Management			
Quality	Safety-Related	Usage: Available	Effective Date: 00/00/00

S. L. Rosen	C. R. Grantom	R. J. Rehkugler	Industry Relations
PREPARER	TECHNICAL	USER	COGNIZANT ORGANIZATION

Table of Contents

1.0 Purpose and Scope 2

2.0 References 2

3.0 Definitions 2

4.0 Responsibilities 3

5.0 Requirements 4

6.0 Process 4

7.0 Records 5

8.0 Support Documents 6

Addendum 1 Graded Quality Assurance 7

Addendum 2 Quality Assurance Program Levels and Descriptions 12

Addendum 3 Categorization of Plant Systems, Components, and Activities 15

Addendum 4 Motor Operated Valve Program...(LATER) 16

Addendum 5 10 CFR 50 Appendix J Local Leak Rate Testing (LLRT) Program...(LATER) 17

1.0 Purpose and Scope

1.1 To establish and provide guidance to the Expert Panel and associated Working Groups on the implementation of a risk informed, performance based Comprehensive Risk Management program at STP.

This procedure is approved for use in categorization of plant systems, components and activities; however, implementation of revisions to QA requirements is on hold pending approval of Operations Quality Assurance Program revision.

2.0 References

2.1 Operations Quality Assurance Plan (OQAP)

3.0 Definitions

3.1 COMPREHENSIVE RISK MANAGEMENT (CRM)

A process by which the risk to station personnel, the public's health and safety and station economics of station requirements, commitments, processes, activities, human and equipment performance are identified, evaluated and dispositioned.

3.2 GRADED QUALITY ASSURANCE

The process by which risk-based methodology [i.e., Probabilistic Safety Assessment (PSA)] and performance-based information analyses are combined to establish appropriate levels of programmatic controls for systems, components or activities and appropriate levels of first line and independent oversight needed to provide necessary assurance that items will operate safely and activities are accomplished as prescribed.

3.3 EXPERT PANEL

A multi-disciplinary group of individuals whose purpose is to guide the implementation of Comprehensive Risk Management activities at STP.

3.4 WORKING GROUPS

Multi-disciplinary groups of individuals who provide risk-informed, performance-based recommendations to the Expert Panel.

3.5 INITIATING EVENT

Any event that can cause a plant trip or otherwise initiate a sequence of events with a significant probability of core damage.

4.0 Responsibilities

4.1 EXPERT PANEL

4.1.1 Approve the criteria for categorization of systems, components, items and activities.

4.1.2 Review and approve the categorization of systems, components, items and activities.

4.1.3 Approve the criteria for assignment of Quality Assurance (QA) measures for systems, components, items and activities.

4.1.4 Review and approve the assignment of QA measures for systems, components, items and activities.

4.1.5 Maintain cognizance over the implementation of the CRM program and adjust program criteria, as appropriate.

4.1.6 Appoint Expert Panel Working Groups

4.2 WORKING GROUPS

4.2.1 Analyze performance information.

4.2.2 Consider risk insights and risk ranking of systems and components.

4.2.3 Consider the application of processes/work activities/work organizations to systems, components and items relative to risk.

4.2.4 Inject deterministic knowledge/insight.

4.2.5 Develop recommendations, as prescribed in the addenda to this procedure, and provide them to the Expert Panel.

4.3 STATION MANAGEMENT

4.3.1 Nominate and provide guidance to members of the Working Groups.

4.3.2 Implement the decisions of the Expert Panel.

4.4 CHANGE MANAGEMENT TEAM

4.4.1 Provide support and peer review for station management as Expert Panel decisions are implemented.

4.5 SENIOR MANAGEMENT TEAM

4.5.1 Maintain strategic level oversight of the CRM Program activities.

4.5.2 Provide resolution of any Expert Panel dissenting opinions.

5.0 Requirements

5.1 The Expert Panel is composed of the Managers of Design and Systems Engineering, Nuclear Licensing, Industry Relations, the Supervising Engineer-Risk and Reliability Analysis, the Director of Quality and the Unit #1 Plant Manager. The Manager of Industry Relations is chairman of the Expert Panel. Changes to the Comprehensive Risk Management Expert Panel membership require approval of the Group Vice President, Nuclear.

5.2 Working Groups shall be comprised of individuals as listed on the appropriate addenda to this procedure.

5.3 Expert Panel and Working Group personnel shall be trained to this procedure, associated PSA procedures and station performance reporting procedures. They shall additionally receive (or have received) training to the requirements of 10 CFR 50.59 and Root Cause Analysis.

5.4 The Expert Panel identifies activities, processes, commitments and requirements to be evaluated by the working groups.

6.0 Process

6.1 Working Groups shall convene at frequencies as established in addenda to this procedure.

6.2 Minimum quorum requirements for Working Group meetings are the chairman and at least three regular members.

6.3 Recommendations shall be arrived at by consensus. Dissentions shall be documented for Expert Panel resolution.

6.4 Using the criteria established in the addenda, the Working Groups shall analyze performance data, consider available risk information and their own deterministic insight, and shall develop recommendations.

6.4.1 Recommendations shall be documented, and shall include rationale and risk ranking/performance information that forms the bases for the recommendations.

6.4.2 Recommendations shall be forwarded to the Expert Panel.

6.5 The Expert Panel shall convene, at a minimum, at the same frequencies as established for Working Groups in the addenda to this procedure.

6.6 Minimum quorum requirements for Expert Panel meetings are the chairman and at least three regular members, one of whom must be the Supervising Engineer-Risk and Reliability Analysis. There shall be no short term designee representation.

6.7 Decisions shall be arrived at by consensus. Dissenting opinions shall be documented. Any dissenting opinions shall be forwarded to the Senior Management Team (SMT) for resolution.

6.8 The Expert Panel shall use the same criteria as the Working Groups in reviewing recommendations and shall inject their own deterministic insight as appropriate. Dissenting opinions from the Working Groups shall be resolved.

6.9 The Expert Panel shall accomplish the tasks defined in 3.1 of this procedure and shall document its decisions. These shall be disseminated to the SMT and the Change Management Team (CMT).

6.10 The SMT shall resolve any dissenting opinions that require resolution.

6.11 The CMT shall provide support and peer review for station management as Expert Panel decisions are implemented.

7.0 Records

7.1 Records of Expert Panel decisions shall be retained as Quality Assurance records in STP-RMS, and shall consist of:

7.1.1 Expert Panel decisions.

7.1.2 Working Group recommendations/analyses.

7.1.3 PSA inputs.

7.1.4 Performance information/analyses.

7.1.5 Other deterministic insight/rationale not covered by 6.1.3 or 6.1.4.

7.1.6 Dissenting opinions and resolutions.

8.0 Support Documents

8.1 Addendum 1 Graded Quality Assurance

8.2 Addendum 2 Quality Assurance Program Levels and Descriptions

8.3 Addendum 3 Categorization of Plant Systems, Components, and Activities

8.4 Addendum 4 Motor Operated Valve Program

8.5 Addendum 5 10 CFR 50 Appendix J Local Leak Rate Testing (LLRT) Program

This addendum describes the Graded Quality Assurance (GQA) process, prescribes the performance reporting of the Operating Experience Group (OEG), and prescribes the activities of the GQA Working Group. It also prescribes the thought processes/criteria to be applied in formulating recommendations to the Expert Panel. The Expert Panel shall use these same processes/criteria in considering Working Group recommendations when arriving at decisions.

Figure 1 for this Addendum depicts a high level process flow chart for GQA.

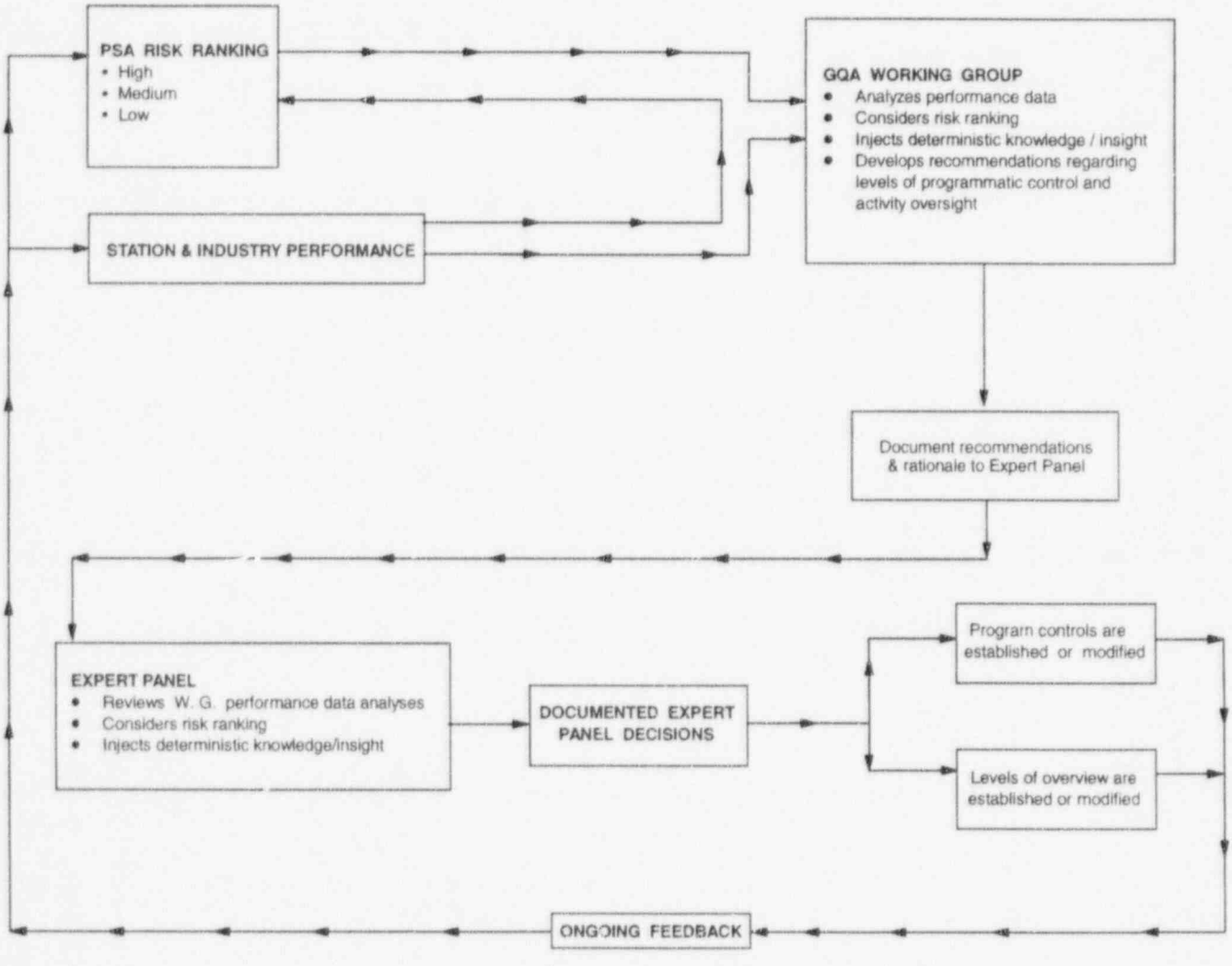


FIGURE 1

GRADED QUALITY ASSURANCE:

Addendum 2 describes the two different programs that shall be applied as appropriate for plant items and activities.

Figure 1 on Addendum 3 defines the logic and criteria the Working Group and Expert Panel shall use in determining the appropriate level of program controls to be applied to plant equipment and activities. There are two different programs to be applied in three different manners: "Full", "Targeted", and "Basic" levels of program control.

"Full" program controls are applied to items and activities determined to have "high" risk significance.

"Targeted" program controls are applied to items and activities that, while not having "high" risk significance, are determined to be significant for other reasons. "Full" program controls are applied in a selected manner and specifically "Targeted" at those characteristics/attributes of the item or activity which render it risk significant.

"Basic" program controls are applied to items and activities that, while not having "high" risk significance or significance for other reasons, are nevertheless subject to the controls of 10 CFR 50, Appendix B.

OPERATING EXPERIENCE GROUP REPORTING:

The OEG compiles and analyzes performance of plant equipment and activities in accordance with 0PGP02-ZA-0004. On a biannual basis, in coordination with Working Group schedules, the OEG shall provide performance reports to the Working Group. These reports shall provide performance information for the current and two prior six months periods, by organization and attributes.

These reports include both positive and negative indicators that are graded on a scale of one to five using the following criteria:

1) Sustained excellence

2) Good with an improving trend

3) Good performance

4) Good with a declining trend

5) Poor performance

For any performance attribute with a rating of four or five, the OEG shall provide accompanying backup information along with the report, for Working Group and Expert Panel analysis purposes.

GQA WORKING GROUP:

The GQA Working Group shall be chaired by the representative from Systems Engineering and have members from Design Engineering, Quality, Risk and Reliability Analysis, Operating Experience, Licensing, Operations and Maintenance/Work Control. This membership will be augmented as needed, depending on the topics under consideration.

The GQA Working Group members shall be senior level personnel with backgrounds that enable them to render logical recommendations. GQA Working Group membership shall be endorsed by the Expert Panel.

The GQA Working Group shall meet, as a minimum, biannually, to establish and/or adjust levels of programmatic control and oversight.

The GQA Working Group shall consider plant systems/components/items/activities in accordance with Addendum 3. They shall consider plant and activity performance provided by the OEG, as applicable, per Addendum 3. Specific attention shall be afforded to areas of poor or declining performance, with special attention to activities which have or can have direct effect on plant systems and components. These considerations, as they may be augmented by group members' deterministic insights, form the bases for recommendations regarding the levels of programmatic controls to be imposed on systems, components, items and activities. They also form the basis for recommending the levels of oversight (both line and independent) that should be afforded to station activities.

Recommendations developed by the GQA Working Group shall be documented and shall be forwarded to the Expert Panel for their consideration and concurrence. Documentation shall include, as a minimum, the following:

- Detailed recommendations for systems/component/item categorization (i.e., full, targeted or basic levels of control).
- Detailed recommendations for activities categorization (i.e., full, targeted or basic levels of control).
- The bases for making those recommendations (i.e., including PSA inputs, performance analysis results, details regarding any other deterministic inputs).
  Activities, systems and components not within the scope of the PSA, including balance of plant performance, instrumentation, mode transition and shutdown operations, or not completely modeled must be considered from a deterministic bases. Addendum 3 lists appropriate questions to be applied to items meeting the above criteria to determine if further significance assessment should be applied. As appropriate, the significance of items identified pursuant to these questions shall be assessed by the Working Group using expert solicitation techniques such as a Delphi

method where key deterministic attributes (e.g. seismic, EQ, II/I, electrical separation, etc.) are evaluated by the Working Group members to establish the overall deterministic significance ranking (i.e. high, medium, low).

- The GQA Working Group shall specifically consider, as a minimum, uncertainties caused by :

1. PSA model assumptions
2. Common cause or common mode failure rates
3. Treatment of support systems
4. Level of definition of cut sets and cut set truncation
5. Model assumptions relative to repair and restoration of failed equipment
6. Human error rates used in the PSA
7. Limitations in the meaning of importance measures

Any dissenting opinions.

GRADED QA PROGRAM CONTROLS:

FULL:

Full Program Controls are defined as the highest levels of program controls and oversight that are to be afforded to items and activities. These are in full compliance with the requirements of 10 CFR 50 Appendix B, and additionally represent compliance with the applicable STP UFSAR commitments relative to USNRC Regulatory Guides and ANSI Standards which they endorse. Other recognized industry standards are applied, as appropriate. These controls shall be prescribed in implementing procedures specific to the item or activity.

Items and activities categorized to receive across-the-board full Program Controls are afforded multi-tiered levels of oversight consisting of independent/dual line verification as appropriate plus focused independent oversight in the form of audits, performance monitoring, assessment, evaluation, inspection, and/or testing, as appropriate to the item or activity. These items and activities shall remain in this category, regardless of performance, due to their high level of risk significance/importance.

In the event that OEG performance reports indicate a declining trend in performance of these items or activities for two consecutive reporting periods, a "CAQ-S" Condition Report shall be initiated in accordance with 0PGP03-ZX-0002, to determine the apparent cause and initiate appropriate corrective actions. If poor performance is indicated, a "S-CAQ" Condition Report shall be initiated (if one has not already been) to effect a root cause investigation and appropriate corrective actions.

GRADED QA PROGRAM CONTROLS (Continued)

TARGETED:

Activities categorized to receive Targeted Full Program Controls are subjected to the same levels of program controls applied to those attributes of the item or activity which placed it into that category. This requires a detailed analysis by the Working Group of the item or activity to determine its attributes. This analysis shall be documented, along with the basis for selection of the full program attributes determined to be appropriate to that item or activity. Until such time as this analysis is completed, across-the-board program controls shall be maintained. These items and activities shall also be afforded multi-tiered levels of line and independent oversight targeted to those attributes which placed them into this category.

Targeted items and activities shall have the same level of Corrective Action Program thresholds as those items and activities categorized for across-the-board Full Program applicability. Any time performance reports indicate declining or poor performance, the Working Group shall additionally revisit the program attributes and oversight applied to those items or activities to confirm that the decisions made were appropriate. Adjustments shall be made, as necessary. These considerations shall be documented and included in the recommendations to the Expert Panel.

GRADED QA PROGRAM CONTROLS(Continued) :

BASIC:

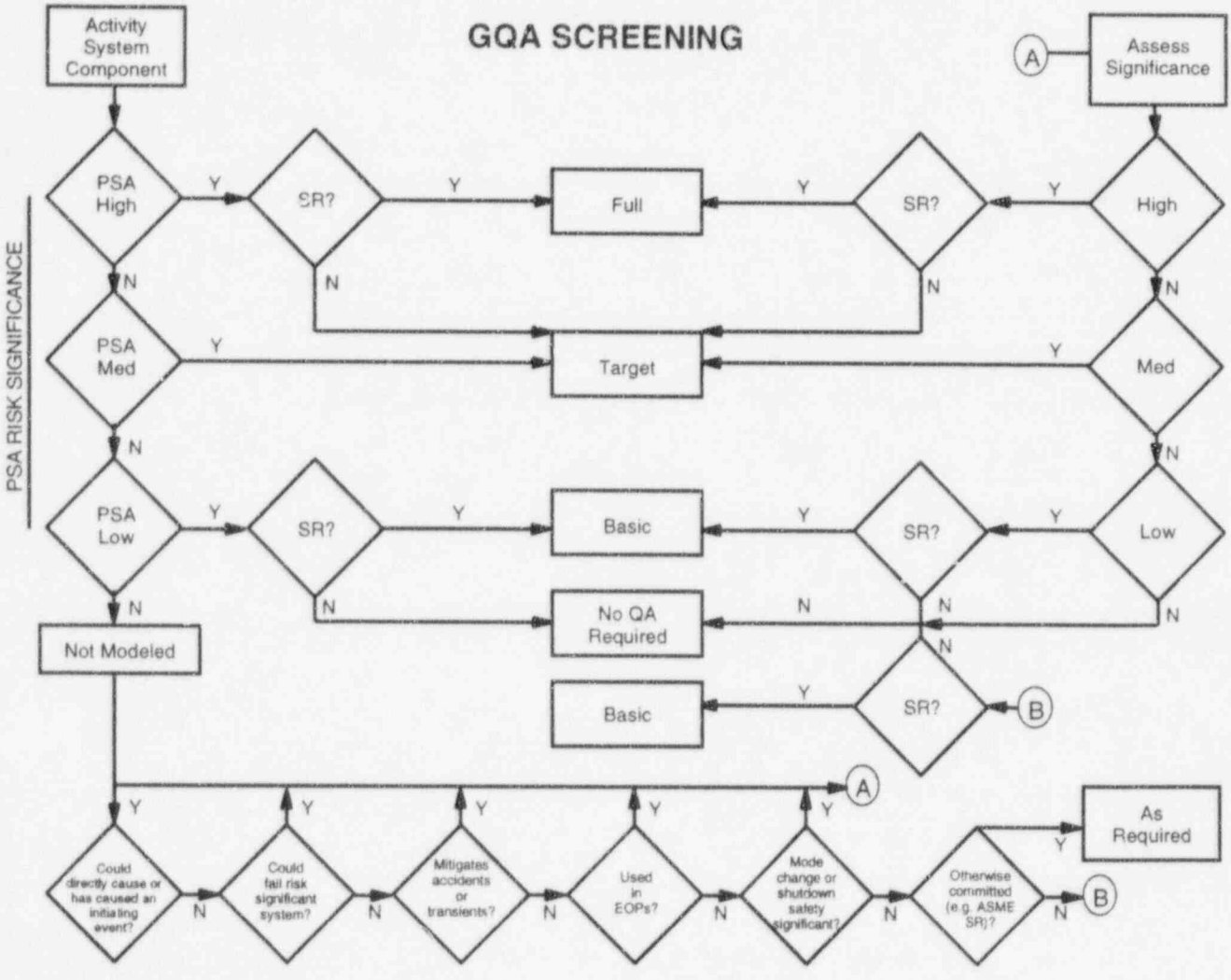
Basic Program Controls are defined as good business practices which reflect the most economical and efficient means of conducting business while maintaining compliance with the basic requirements of 10 CFR 50 Appendix B. They do not reflect the strict controls as depicted in USNRC Regulatory Guides and the ANSI standards they endorse. Other industry standards are applied, as appropriate. These controls shall be prescribed in implementing procedures specific to the item or activity.

Items and activities categorized to receive basic levels of program controls shall be afforded minimal levels of oversight. The primary means of verification shall be by the line organization, with periodic selected independent oversight in the form of audits, performance monitoring, assessments, evaluations, inspection, and/or testing as appropriate to the item or activity.

In the event that OEG performance reports indicate declining or poor performance of these items or activities, the Working Group shall revisit the categorization to confirm that it was appropriate. If not (e.g., it should have been categorized as Targeted or higher), the item or activity shall be recategorized and a "CAQ-S" Condition Report shall be initiated to determine the apparent cause of the mis-categorization and effect appropriate corrective actions.

If the Working Group concludes that the categorization is appropriate, the declining or poor performance of the item or activity, by definition, cannot constitute a Significant Condition Adverse to Quality; however, remediation of declining or poor performance is desirable. If performance declines for two consecutive reporting periods or is poor, a "CAQ-S" Condition Report shall be initiated to determine the apparent cause and effect the appropriate corrective actions.

Figure 1



SR = Safety Related

FIGURE 1

TO BE SUBMITTED AT A LATER DATE

TO BE SUBMITTED AT A LATER DATE

ATTACHMENT 3

PROBABILISTIC SAFETY ASSESSMENT RISK RANKING PROCEDURE
DRAFT

c:\winapps\word60\crg\procedur\psa_rank.doc Effective date: 00/00/00 Print: 3/6/96 March 18, 1996	0PGP01-ZA-0304	Rev. 0 General	Page 1 of 6

PROBABILISTIC SAFETY ASSESSMENT RISK RANKING

Quality	Safety-Related	Usage: **DRAFT**	Effective Date:

C. R. Grantom	(name)	(name)	Nuclear Fuel & Analysis
PREPARER	TECHNICAL	USER	COGNIZANT ORGANIZATION

Table of Contents Page

1. 0 Purpose and Scope 2

2. 0 Definitions 2

3. 0 References 2

4. 0 Responsibilities 3

5. 0 Requirements 3

6. 0 Documentation 3

7. 0 Support Documents 3

1.0 Purpose and Scope

Describe the methods and criteria used to rank the risk significance of systems, components, and operator actions within the scope of the PSA. This procedure is applicable to those items contained in the STP risk models.

2.0 Definitions

2.1 Risk Ranking: the process by which systems, structures, and components within the scope of the PSA analysis are grouped based on their risk significance.

2.2 Importance Measures: standard calculations which quantify the significance of systems, structures, and components within the scope of the PSA analyses.

2.3 Fussell-Vesely: an importance measure which is defined as the ratio of the difference of the core damage frequency (or other figure of merit) with the component failed from the core damage frequency with the component successful over the average core damage frequency.

2.4 Risk Achievement Worth: an importance measure which is defined as the ratio of the core damage frequency (or other figure of merit) given the component is failed to the average core damage frequency.

2.5 Common Cause: a portion of the system analysis that evaluates components to determine their vulnerability to multiple component failures due to a common, shared event and not a dependent event.

2.6 Risk Reduction Worth: an importance measure which is defined as the ratio of the core damage frequency (or other figure of merit) given the component is successful to the average core damage frequency.

3.0 References

3.1 South Texas Project Level 1 Probabilistic Safety Analysis

3.2 South Texas Project Level 2 Probabilistic Safety Analysis and Individual Plant Examination

3.3 EPRI PSA Applications Guide, TR-105396, August 1995

4.0 Responsibilities

4.1 Supervisor, Risk and Reliability Analysis ensures that the requirements of this procedure are effectively implemented.

4.2 Expert Panel is responsible for approving the risk ranking criteria.

5.0 Requirements

5.1 PSA inputs shall be defined and incorporated in the procedure for Configuration Control of the Probabilistic Safety Assessment (0PEP01-ZE-0303).

5.2 The PSA risk models shall be quantified and sensitivity studies performed as described in Addendum 1.

5.3 The quantification results shall be compiled to reflect key importance measures associated with, at a minimum, core damage frequency and large early release frequency.

5.4 The contribution of the systems, equipment, operator actions, and initiating events shall be listed in order of their importance measures.

5.5 Thresholds defining high, medium, and low risk significance for average core damage frequency and average large early release frequency shall be developed.

5.6 Technical bases for establishing the threshold values shall be documented.

5.7 On a periodic basis, as established in "Configuration Control of the Probabilistic Safety Assessment" (0PEP01-ZE-0303), the risk ranking of components shall be be generated, reviewed, approved, and submitted to the Expert Panel/Expert Panel Working Groups.

6.0 Documentation

6.1 A risk ranking report will be periodically issued concurrent with plant specific updates.

7.0 Support Documents

Addendum 1 Risk Ranking Process
Addendum 2 Risk Significance Thresholds

ADDENDUM 1

RISK RANKING PROCESS

RISK RANKING CRITERIA

Risk Ranking Tasks:

Quantify all risk models based on the average figures of merit (i.e., core damage frequency, large early release). Perform top event importance, split fraction importance, and basic event importance quantifications with all standard importance measures.
Purpose: Average quantification establishes level for overall risk ranking and level of plant performance.

Quantify all risk models based on the removal of all maintenance unavailability contributions. Perform top event importance, split fraction importance, and basic event importance quantifications with all standard importance measures.
Purpose: Quantifies optimum level of defense-in-depth.

Quantify all risk models based on the removal of all operator recovery actions. Perform top event importance, split fraction importance, and basic event importance quantifications with all standard importance measures.
Purpose: Provides risk ranking with primary emphasis on equipment availability and reliability.

Quantify all risk models based on the removal of all common cause contributions. Perform top event importance, split fraction importance, and basic event importance quantifications with all standard importance measures.
Purpose: Provides focus of risk ranking based equipment combinations outside the scope of common cause failures.

Quantify selected risk models and vary failure rates of common equipment categorized as low risk. Selection should based on active components that appear in a majority of system level analyses such as relays, check valves, motor operated valves, etc.
Purpose: To determine if non-linear impacts to key figures of merit can occur.

Compare the risk rankings from the above quantifications and note variance in importance measures for like and similar components.

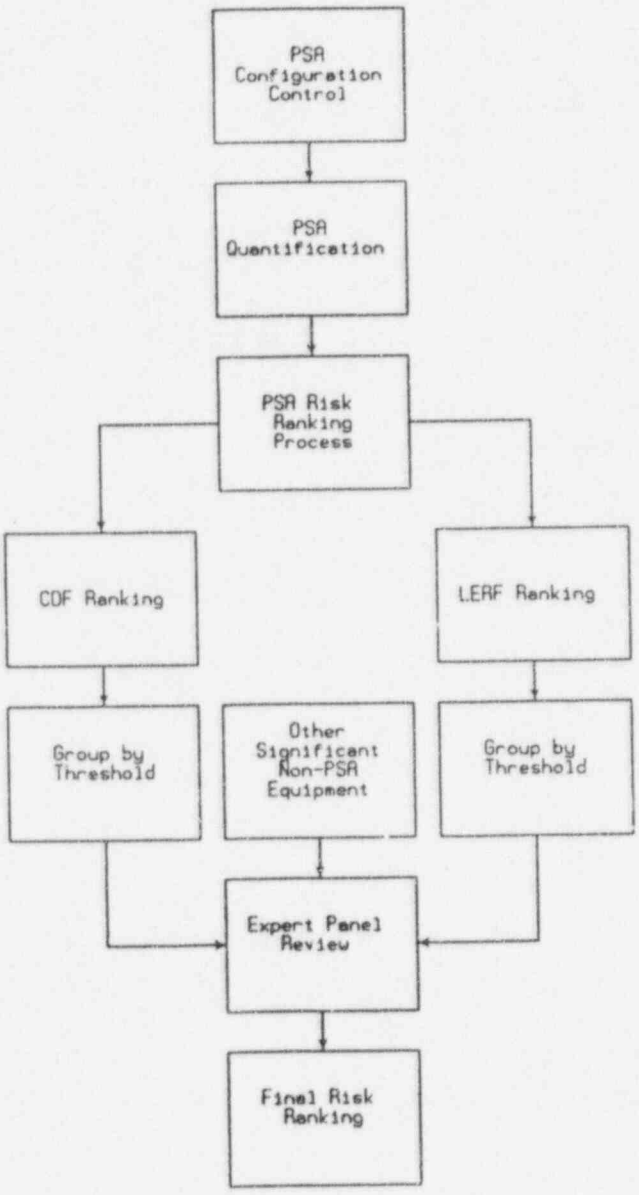
Identify boundaries between levels of importance (See Addendum 2 for the technical basis for risk significance thresholds).

Classify equipment based on the above results and document for Expert Panel.

ADDENDUM 1

RISK RANKING PROCESS

RISK RANKING FLOW CHART



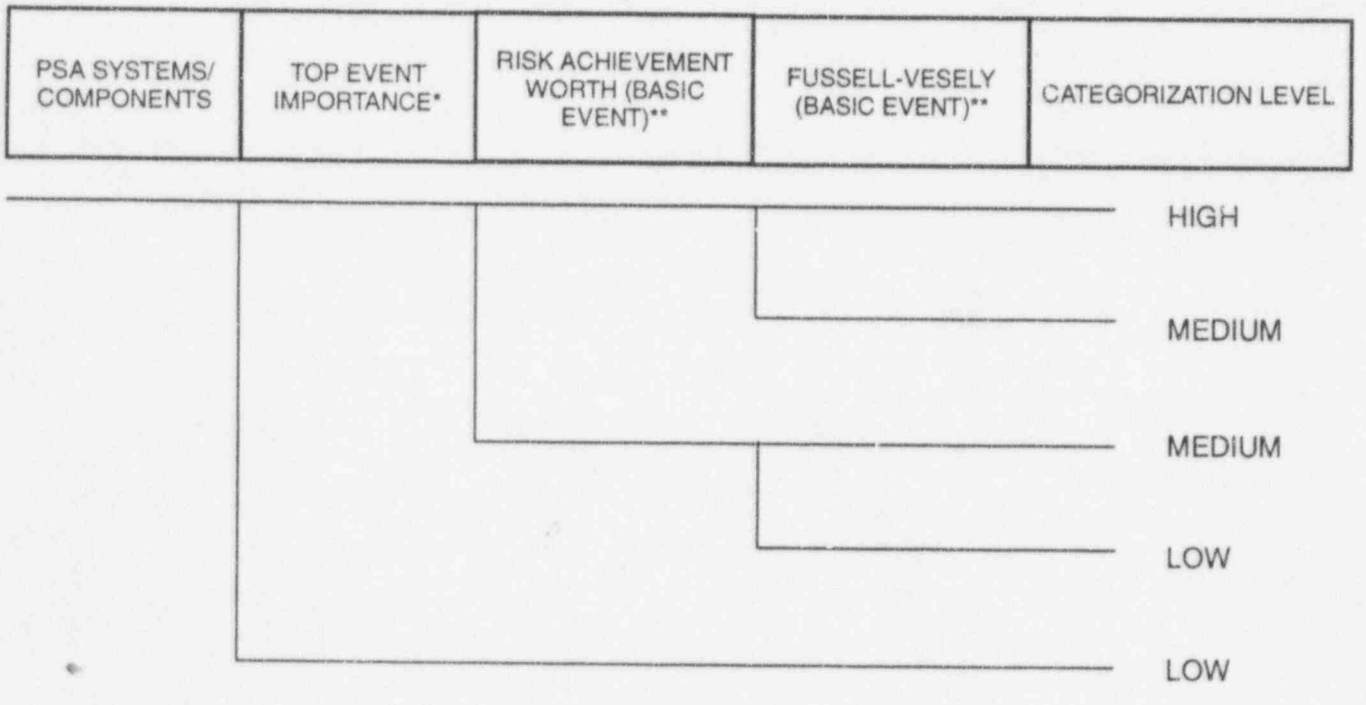
ADDENDUM 2

RISK SIGNIFICANCE THRESHOLDS

The basis for the risk significance thresholds is as follows:

- For the low category, top event importance is used as a first filter to segregrate systems and components whose cumulative contributions are less than a prescribed value. The prescribed threshold values are obtained from Figures 4-1 and 4-2 of Reference 3.3 which is based on the current values of core damage frequency (CDF) and large, early release frequency (LERF).
- By using top event importance the combined effects of components which comprise the scope of the top event are quantified. If the top event importance is less than the specified threshold by Reference 3.3, then a high degree of confidence is obtained to conclude that none of the components within the scope of the top event have any risk significance.

RISK SIGNIFICANCE DECISION TREE



* - From PSA Applications Guide, Figure 4-1.

** - From PSA Applications Guide, Figure 4-2.

ATTACHMENT 4

PROBABILISTIC SAFETY ASSESSMENT PROGRAM PROCEDURE - DRAFT

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PROBABILISTIC SAFETY ASSESSMENT PROGRAM

Quality	Safety-Related	Usage: **DRAFT**	Effective Date:

C. R. Grantom	(name)	(name)	Nuclear Fuel & Analysis
PREPARER	TECHNICAL	USER	COGNIZANT ORGANIZATION

Table of Contents

Page

1.0 Purpose and Scope 2

2.0 Definitions 2
- 2.1 Configuration Control 2
- 2.2 Software Control 2
- 2.3 Application Control 2

3.0 References 2

4.0 Responsibilities 3

5.0 Requirements 3
- 5.1 Configuration Control of the PSA 3
  - 5.1.1 Scope of Analyses 3
  - 5.1.2 Risk Models and Documentation 3
  - 5.1.2 Data Analysis - Scope and Overview 6
  - 5.1.3 PSA Methodology 7
  - 5.1.4 PSA Assumptions 7
- 5.2 PSA Software Control 7
  - 5.2.1 Scope and Overview 7
  - 5.2.2 Software Configuration Control 8
  - 5.2.3 Software Development and Enhancement 8
- 5.3 PSA Application Control 8

6.0 Documentation 8
- 6.1 Selected Stand-Alone Reports 8
- 6.2 Periodic Reports 8

1.0 Purpose and Scope

To define the structure, functions, controls, and applications of the South Texas Project (STP) Probabilistic Safety Assessment (PSA) program. This procedure is applicable to structures, systems, components, and human actions for all plant operating modes and configurations within the scope of the PSA. The PSA program includes, but is not limited to, the STP Level 1 PSA (Reference 3.1), the Level 2 PSA/IPE (Reference 3.2), the Probabilistic Shutdown Safety Assessment, updates to these models, and analyses performed using these models.

The control elements associated with the STP PSA program are:

- Configuration Control;
- Software Control; and
- Application Control.

These elements provide the necessary controls to perform risk-based analyses at STP and to ensure that appropriate technical bases and associated documentation with respect to plant design, procedural processes, and plant performance are incorporated. The relationship between these control elements is shown in Figure 1.

2.0 Definitions

2.1 Configuration Control - activities necessary to identify, evaluate, and disposition changes or revisions to items associated with PSA inputs, as appropriate.

2.2 Software Control - activities related to maintaining computer software configuration control associated with quantification of PSA inputs or processes.

2.3 Application Control - activities related to updating or revising risk-based evaluations or other risk-based deliverables within the scope of PSA models, as appropriate.

3.0 References

3.1 Level 1 PSA
3.2 Level 2 PSA/IPE
3.3 Fire PSA Update
3.4 Risk-Based Evaluation of Technical Specifications
3.5 PLG's Appendix B Software QA Program
3.6 ORAM Model Documentation.
3.7 STP Probabilistic Shutdown Safety Assessment

4.0 Responsibilities

Supervisor, Risk & Reliability Analysis assures that the requirements of this procedure are satisfied.

5.0 Requirements

5.1 Configuration Control of the PSA

5.1.1 Scope of Analyses

PSA configuration control is comprised of the following areas:

- Risk Models and Documentation;
- Data Analysis;
- Methodology; and
- Assumptions

The STP PSA Program provides plant specific risk analyses of the STP units. Date and time stamps are used to establish the status of plant design and processes at the time of any analysis applicable to the PSA Program. The date and time stamps provide traceability of the results of a PSA analysis to the plant configuration at the time the analysis was performed.

5.1.2 Risk Models and Documentation

Risk model documentation includes identification of references and other materials used to establish and model the response of the plant to various initiating events, operator actions, and recovery actions. Key components of risk model documentation include:

- Plant Models;
- System Models;
- Spatial Interactions Analysis; and
- System Success Criteria.

5.1.2.1 Plant Models

At the plant level, event trees are used to model the response of the plant to an initiating event (e.g., plant trip). Event trees include important systems and operator actions necessary to prevent core damage. Quantification of event trees provides the likelihood of core damage given an initiating event. The STP PSA event trees and their relationships are shown in Figure 2. Event tree notebooks are maintained, and generally contain the following information:

- *Introduction* - describes event tree purpose and scope;
- *Assumptions/References* - lists assumptions and references from which they are derived;
- *Event Sequence Diagram* - (Front-line System Event Trees only) outlines equipment and operator actions required to mitigate/prevent a core damage event;
- *Event Sequence Block Descriptions* - (Front-line System Event Trees only) describes functional blocks contained in the event sequence diagrams;
- *Event Tree* - outlines succession of individual events which identify all possible sequences of events leading to a predefined failure event (e.g., core damage);
- *Event Tree Top Event Descriptions* - defines systems, equipment, and operator actions included in the event tree structure;
- *Event Tree Binning Rules* - defines logic rules to group event tree sequences into common impacts for linking the next stage of event trees; and
- *Event Tree Split Fraction Rules* - describes logic rules used to determine which split fractions should be assigned to a unique point in the event tree.

5.1.2.2 System Models

On a system level, analyses are used to quantify the availability/reliability of plant equipment important to safety. Top events are defined for each system or function in terms of that system's success criteria. Fault trees are used to develop minimal cutsets which lead to failure of a top event. The generated cutsets are modified to account for common cause failures, test and maintenance alignments, and unique boundary conditions.

System notebooks are developed to document the system models and their associated fault trees. Systems with components modeled in the PSA are shown in Figure 3 along with their respective system notebooks. The system notebooks generally contain the following information:

- *Introduction* - describes fault tree purpose and scope;
- *System Function* - describes the process or purpose of the system;
- *Top Event Definitions* - defines the events for which system analysis provides quantification information;
- *System Success Criteria* - defines the minimum level of performance that will result in the system successfully performing its intended safety function as required by the event trees;
- *Support Systems* - defines systems and equipment which are required to successfully perform their function so that the analyzed system is capable of performing its intended safety function;
- *Systems Supported* - defines systems and equipment which depend on the analyzed system to perform its function so that they can perform their intended safety functions;
- *System Operations and Special Features* - defines pertinent information for normal operations and other characteristics which impact the analysis;
- *Potential for Initiating Event* - provides screening for the systems ability to cause an initiating event (e.g., reactor trip, turbine-generator trip);
- *Technical Specification Requirements* - provides information for success criteria and frequency of testing alignments;
- *Plant Procedures* - lists procedures used to define system alignments;
- *Assumptions* - lists items necessary to document areas not analyzed in part or in whole;
- *System Boundary* - defines the limit of the analysis relative to a physical of programmatic boundary;
- *Event Trees and Event Tree Split Fractions* - lists cross-references of the analyzed system to the associated event trees and split fractions;
- *Basic Event Cross Reference* - translates fault tree basic events to equipment descriptions and identification numbers;
- *Common Cause Modeling* - describes modeled common cause groups;
- *Maintenance Alignments* - describes the system configuration (including frequency and duration) when certain maintenance or testing activities are performed;

- *Recovery Factors Based on System Split Fractions* - lists operator actions necessary to restore the system or functions following failure of the analyzed system;
- *Modeling Notes* - provides other information relative to the system analysis;
- *Fault Tree* - outlines the graphical fault tree; and
- *References* - documents materials used in the system analysis.

5.1.2.3 Spatial Interactions Analysis - Scope and Overview

Internal plant hazards (e.g., internal floods, plant fire, or seismic response) are highly dependent on the location of risk-significant equipment relative to the hazard. Due to this dependence on plant geometry, the identification and screening of scenarios caused by internal plant hazards is referred to as Spatial Interactions Analysis. To perform this analysis, the sources of hazards within the plant and the available hazard mitigative features are tabulated. Then, by starting with the hazard sources and taking the potential propagation paths and mitigative feature into account, environmental hazard scenarios are constructed for each location[1]. Computerized methods are used to analyze this data and to determine the frequencies of the scenarios occurring. Finally, a list is generated of scenarios ranked by their contribution to the occurrence of various impact vectors[2]. The STP spatial interactions analysis is documented in the Level 1 PSA (Reference 3.1), the Level 2 PSA/IPE (Reference 3.2), and in the Fire PSA update (Reference 3.3).

5.1.2.4 System Success Criteria

System success criteria are generally based on analyses performed to determine plant response to a UFSAR Chapter 15 accident (e.g., Large LOCA, with single failure assumed) or a scenario defined in the Fire Safe Shutdown Report. Any analyses which modify the system success criteria are documented in the success criteria section of each system notebook.

---

[1] A "location" means a well-defined volume in the plant that does not overlap another location. In general, fire zones as defined in a Fire Hazards Analysis are a good starting point for locations used in Spatial Interaction Analysis.

[2] Impact vectors are combinations of system success/failure, initiating events, and event tree top events.

5.1.2 Data Analysis - Scope and Overview

Data used in the PSA consists of generic data and plant-specific data. The generic data used in the Level 1 STP PSA quantifications performed in 1988 and 1989 was provided by PLG. Inc. Since then, selected plant-specific data has been incorporated into the PSA. In 1993, a successful comprehensive effort was made to perform a full scope update of plant-specific failure data. Future updates are planned for each Unit 1 refueling outage, and these updates will also be used as an input for Maintenance Rule (10CFR50.65) compliance. The types of data which can be updated include:

- equipment failure rates;
- human performance assumptions;
- initiating event frequencies (internal and external events);
- planned and unplanned maintenance frequencies;
- planned and unplanned maintenance durations;
- testing frequencies and durations;
- common cause failure rates; and
- other performance data (e.g., fraction of time supplemental purge valves are open; fraction of time Pressurizer PORV block valves are closed, etc.)

5.1.3 PSA Methodology

Probabilistic methods and techniques used in the original STP PSA are documented in the Level 1 PSA, the Level 2 PSA/IPE, and the Risk Based Evaluation of Technical Specifications (Reference 3.4). New PSA methodology will be incorporated on a case-by-case basis depending upon its applicability to STP.

5.1.4 PSA Assumptions

Assumptions made in the Level 1 PSA and Level 2 PSA/IPE range from those concerning construction of plant systems/equipment to those associated with plant transient and accident response. Documentation of assumptions made in the PSA are individually documented in the Level 1 PSA, Level 2 PSA/IPE, event tree notebooks, plant system notebooks, or other documents, as appropriate.

5.2 PSA Software Control

5.2.1 Scope and Overview

Only the software used to quantify and document quality risk-based calculations is included within the scope of this procedure.

The at-power (Mode 1) risk analysis performed at STP uses RISKMAN™, a proprietary software program developed by PLG, Inc. A site license is maintained for RISKMAN™ in order to perform plant level event tree and system level fault tree quantifications. The probabilistic safe shutdown analysis (PSSA) at STP uses the EPRI code ORAM (**O**utage **R**isk **A**ssessment **M**odule) and Riskman™. ORAM is used for PSA analyses when the STP units are in Modes 4, 5, 6, or defueled. Plant conditions during shutdown configurations are evaluated by ORAM using qualitative and quantitative analyses. Documentation of STP's PSSA models is contained in Reference 3.6. ORAM software control is provided by EPRI and Erin Engineering, Inc.

5.2.2 Software Configuration Control

Configuration control of RISKMAN™ and verification and validation (V&V) requirements are maintained by PLG, Inc., pursuant to 10CFR50, Appendix B. The STP PSA program takes credit for PLG's Appendix B program with respect to software configuration control and V&V (Reference 3.5). To ensure that RISKMAN™ properly performs risk-based calculations at STP, a test case with a known input and output is run to document the accurate installation and performance of RISKMAN™ on STP PC workstations. Performance of the test case is documented per QA document in the RISKMAN™ Software.

5.2.3 Software Development and Enhancement

STP is also a member of the RISKMAN™ Technology Group (RTG), which is a user group comprised of utilities and national laboratories who use RISKMAN™. Further development and application of RISKMAN™ and RISKMAN™ code maintenance are directed by the RTG. By participating in the RTG, STP is involved in the identification and correction of software errors as well as other RISKMAN enhancements.

5.3 PSA Application Control

Control of PSA applications at STP is accomplished by ensuring that the PSA model and required changes used for the application are appropriate. The technical basis and changes required by the analysis are reviewed, approved, and documented. This provides adequate traceability and control.

5.4 Training

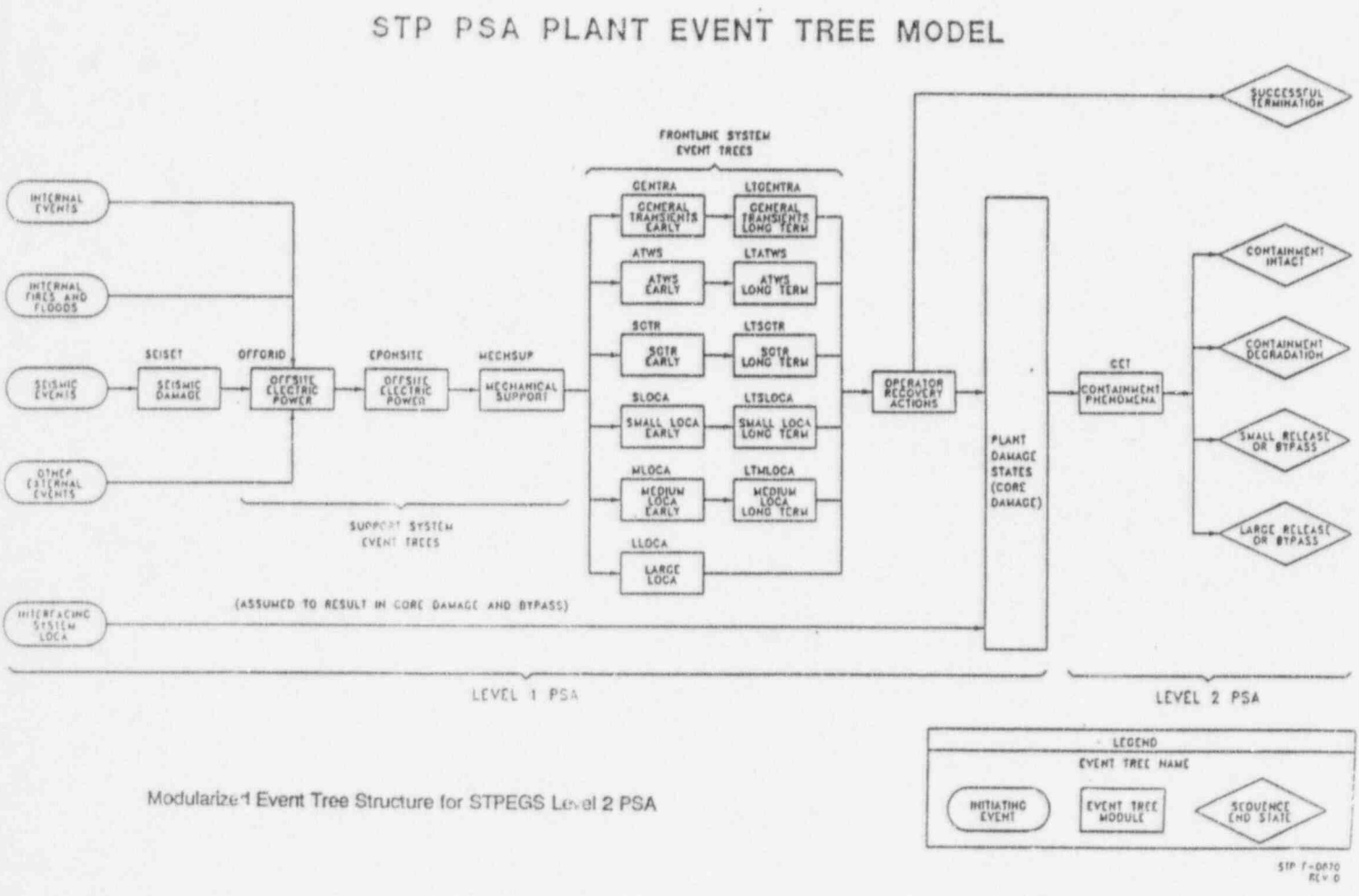
PSA overview training is provided to selected plant staff on a case-by-case basis and is specifically tailored for the target audience. PSA training for analysts is accomplished through a combination of on-the-job training and formal PSA seminars and lectures.

6.0 Documentation

6.1 Selected Stand-Alone Reports or other risk based analyses, as required, are submitted to requesting organizations and to STP Records Management Services.

6.2 Periodic Reports or other updates are provided for existing applications, as required, and are also submitted to client organizations and to STP Record Management Services, as appropriate.

FIGURE 2
PSA EVENT TREES



Modularized Event Tree Structure for STPEGS Level 2 PSA

FIGURE 3
SYSTEMS MODELED IN THE PSA

AC	Closed Loop Auxiliary Cooling Water	Select components modeled
AF	Auxiliary Feedwater System	Explicitly modeled
AM03	QDPS	Select components modeled
CC	Component Cooling Water	Explicitly modeled
CH	Essential Chilled Water System	Explicitly modeled
CS	Containment Spray	Explicitly modeled
CT	Condensate Storage & Transfer	Select components modeled
CV	Chemical Volume and Control System	Explicitly modeled
DB	Diesel Generator (BOP, TSC, & EOF)	Select components modeled
DC	250V DC Non-class 1E	Select components modeled
DG	Diesel Generator System	Explicitly modeled
DI	Standby Diesel Combustion Air Intake	Implicitly modeled in DG
DJ	125V DC Class 1E	Explicitly modeled
DO	Standby DG Fuel Oil Storage & Transfer	Implicitly modeled in DG
DX	Standby Diesel Generator Exhaust	Implicitly modeled in DG
ED	Radioactive Vents & Drains	Containment Isolation only
EH	Electro-Hydraulic Controls	Select components modeled
EW	Essential Cooling Water	Explicitly modeled
HC	HVAC - Containment Building	Explicitly modeled
HE	HVAC - Electrical Auxiliary Building	Explicitly modeled
HG	HVAC - Standby DG Bldg	Select components modeled
HM	HVAC - MAB	Select components modeled
HZ	HVAC - Miscellaneous	Select components modeled
IA	Instrument Air	Select components modeled
JW	Standby DG Jacket Water	Implicitly modeled in DG
LU	Standby DG Lube Oil	Implicitly modeled in DG
MS	Main Steam System	Explicitly modeled
PA	Standby Transformer	Explicitly modeled
PB	Main & Auxiliary Transformers	Explicitly modeled
PC	13.8 kV AC Auxiliary	Explicitly modeled
PE	480 V AC Non-class 1E Load Centers	Select components modeled
PF	480 V AC Non-class 1E	Select components modeled
PG	13.8 KV Emergency Power	Explicitly modeled
PK	4 kV AC Class 1E Power	Explicitly modeled
PL	480 V AC Class 1E Load Center	Explicitly modeled
PM	480 V AC Class 1E MCC & Distribution Panels	Explicitly modeled
RA	Radiation Monitoring	Containment Isolation only
RC	Reactor Coolant System	Explicitly modeled

FIGURE 3
SYSTEMS MODELED IN THE PSA

RH	Residual Heat Removal System	Explicitly modeled
SB	Steam Generator Blowdown	Select components modeled
SD	Standby DG Starting Air	Implicitly modeled in DG
SF	Engineered Safety Features Actuation	Explicitly modeled
SI	Safety Injection System	Explicitly modeled
SP	Solid State Protection System	Explicitly modeled
VA	120 V AC Class 1E Vital Power	Explicitly modeled
WL	Liquid Waste Processing	Containment Isolation only
XS	Switchyard	Select components modeled

ATTACHMENT 5

CONFIGURATION CONTROL OF THE PROBABILISTIC SAFETY ASSESSMENT PROCEDURE - DRAFT

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CONFIGURATION CONTROL OF THE PROBABILISTIC SAFETY ASSESSMENT

Quality	Safety-Related	Usage: **DRAFT**	Effective Date:

C. R. Grantom	(name)	(name)	Nuclear Fuel & Analysis
PREPARER	TECHNICAL	USER	COGNIZANT ORGANIZATION

Table of Contents

Page

1.0 Purpose and Scope 2

2.0 Definitions 2

3.0 References 3

4.0 Responsibilities 3

5.0 Requirements 3

6.0 Documentation 4

7.0 Support Documents 4
- 7.1 Addendum 1 PSA Input Data 5
- 7.2 Addendum 2 PSA Notebook Contents 7
- 7.3 Addendum 3 Plant Change Screening & Flow Chart 9
- 7.4 Addendum 4 Notebook Update Methodology & Flow Chart 12

1.0 Purpose and Scope

1.1 To define, disposition, implement, and maintain the data inputs to the Probabilistic Safety Assessment (PSA) risk models.

1.2 This procedure is applicable to all components and human actions contained in the STP PSA Programs.

2.0 Definitions

2.1 Event Tree: graphical representations of succession of individual events which in combination identifies all possible sequences of events leading to a predefined failure event of interest (e.g., core damage).

2.2 Fault Tree: graphical representation of a failure event of interest or "top event" which illustrates the logical relationship all of the subevents contributing to that event.

2.3 PSA Inputs: The set of data and information required by the PSA, as appropriate, to accurately reflect the design, procedural processes, and human interaction of the facility to be analyzed and to quantify the probability and uncertainty of selected events.

2.4 Basic Event: the lowest level of subevents that contribute to a fault tree top event.

2.5 Initiating Event: any event that can cause a plant trip or otherwise initiate a sequence of events with a significant probability of core damage.

2.6 Recovery Factor: a numerical value used to determine the likelihood that human actions (i.e., operator actions) successfully "recover" a component or function that has initially failed.

2.7 Success Criteria: the minimum level of system or equipment performance that must be achieved in order to satisfy a selected function of interest.

2.8 PSA Applications: analyses performed using the results of the PSA. These analyses are generally performed to support a specific activity (e.g., 50.59 review) or program (technical specification optimization/relaxation). A list of active applications is maintained by Risk and Reliability Analysis. Active applications support STP organizations and processes.

3.0 References

3.1 STP Level 1 PSA with External Events (L1PSA).

3.2 STP Level 2 PSA and Individual Plant Examination (L2PSA/IPE).

4.0 Responsibilities

4.1 Supervisor, Risk and Reliability Analysis ensures that requirements of this procedure are effectively implemented and identifies required PSA information contained in Addendum 1.

4.2 Station Management is responsible for providing the information described in Addendum 1 as identified by the Supervisor, Risk and Reliability Analysis.

5.0 Requirements

5.1 Appropriate Department Managers shall forward the identified information in Addendum 1 to the Supervisor, Risk and Reliability Analysis.

5.2 Risk & Reliability Analysis shall develop and maintain Event Tree and PSA System Notebooks containing the information in Addendum 2, as applicable.

5.3 The Event Tree/System Notebooks are approved by the Supervisor, Risk and Reliability Analysis.

5.4 On an 18 month cycle basis, the notebooks will be updated to reflect changes resulting from the data collected per Addendum 1 to this procedure, as applicable.

5.5 The changes affecting risk model quantification are reviewed and incorporated into the PSA models, as appropriate, as defined in Addendum 3 or other Desktop Instructions. Changes which can not affect risk model quantification, such as 'comment' fields, may be changed if determined to be appropriate by cognizant Risk and Reliability personnel.

5.6 Once updated, the PSA is requantified, evaluated, and approved for use by the Risk & Reliability Analysis (RRA) group. Evaluation consists of reviewing the current results against the previous results and changes in input. PSA Risk Ranking (0PGP01-ZA-0304) may be used to assist in the evaluation.

5.7 PSA applications will be updated and distributed to customer organizations.

6.0 Documentation

6.1 A PSA Update Report will be generated by RRA at least on an 18 month cycle basis describing changes and documenting the data the update was approved for use.

6.2 PSA System Notebooks - this level of controlled documentation is maintained at the RRA workstation areas and are the principal mechanisms for documenting configuration status of system level risk models.

6.3 PSA Event Tree Notebooks - this level of controlled documentation is maintained at the RRA workstation areas and are the principal mechanisms for documenting configuration status of plant level risk models.

6.4 PSA Plant Specific Data Analysis - this documentation provides the basis for the incorporation of generic and plant specific failure data, etc. which is incorporated into the PSA risk models.

7.0 Support Documents

7.1 Addendum 1 PSA Input Data

7.2 Addendum 2 PSA Notebook Contents

7.3 Addendum 3 Plant Change Screening & Flow Chart

7.4 Addendum 4 Notebook Update Methodology & Flow Chart

ADDENDUM 1 - PSA INPUT DATA

The data listed below is necessary only for systems and components within the scope of the PSA program or as defined in the PSA system and event tree notebooks. The data required for specific systems analyses varies such that not all items listed below may be required.

Operations & Maintenance Data

- Failure/success data for PSA components (Plant Specific Data);
  - Equipment history
  - Number of equipment demands
  - Corrective Action program data
  - Control Room Logs
  - Operability Tracking
  - Condition Reports

- Actual planned and unplanned maintenance frequencies/durations for PSA components
  - Work Control information
  - Scheduling data and information
  - Equipment Clearance Order (ECO) data
  - Control Room Logs
  - Operability Tracking

- Actual testing frequencies/durations for PSA components
  - Scheduling data and information
  - Equipment Clearance Order (ECO) data
  - Control Room Logs

- Occurrences of initiating events
  - Condition Reports
  - SOERs

- Significant industry events
  - INPO Significant Operating Event Reports
  - NRC Information (e.g., Information Notices, Generic Letters)
  - Nuclear Network

- Technical Specifications

Engineering & Design Data

- Design Related Information
  - Updated Final Safety Analysis Report
  - Safety Evaluation Report
  - Design Basis Documents
  - Design drawings (P&IDs, Elementary Diagrams, Single Line Diagrams, Logic Drawings, etc.)
  - Design change information

- Thermohydraulic analyses and other selected Engineering Analyses;

Procedural Data

- Selected procedures and revision notification
  - Plant Surveillance Procedures (testing alignments)
  - Plant Maintenance Procedures (maintenance alignments)
  - Plant Engineering Procedures (maintenance alignments)
  - Plant Operating Procedures 02 Series (normal alignments)
  - Plant Operating Procedures 04 Series (abnormal alignments and conditions)
  - Plant Operating Procedures 05 Series (emergency operations)

- Other pertinent data (e.g., time supplemental purge valves are open, PORV block valves are closed)

ADDENDUM 2 - PSA NOTEBOOK CONTENTS

Event Tree Notebooks

- *Introduction* - describes event tree purpose and scope;
- *Assumptions/References* - lists assumptions and references from which they are derived;
- *Event Sequence Diagram* - (Front-line System Event Trees only) outlines equipment and operator actions required to mitigate/prevent a core damage event;
- *Event Sequence Block Descriptions* - (Front-line System Event Trees only) describes functional blocks contained in the event sequence diagrams;
- *Event Tree* - outlines succession of individual events which identify all possible sequences of events leading to a predefined failure event (e.g., core damage);
- *Fault Tree* - outlines top events which illustrate the logical relationship of the events leading to a particular event;
- *Macros* - defines split fraction logic rules used to link event trees;
- *Event Tree Top Event Descriptions* - defines systems, equipment, and operator actions included in the event tree structure;
- *Event Tree Binning Rules* - defines logic rules to group event tree sequences into common impacts for linking the next stage of event trees; and
- *Split Fraction Rules* - describes logic rules used to determine which split fractions should be assigned to a unique point in the event tree.

System Notebooks

- *Introduction* - describes fault tree purpose and scope;
- *System Function* - describes the process or purpose of the system;
- *Top Event Definitions* - defines the events for which system analysis provides quantification information;
- *System Success Criteria* - defines the minimum level of performance that will result in the system successfully performing its intended safety function as required by the event trees;
- *Support Systems* - defines systems and equipment which are required to successfully perform their function so that the analyzed system is capable of performing its intended safety function;
- *Systems Supported* - defines systems and equipment which depend on the analyzed system to perform its function so that they can perform their intended safety functions;
- *System Operations and Special Features* - defines pertinent information for normal operations and other characteristics which impact the analysis;
- *Potential for Initiating Event* - provides screening for the systems ability to cause an initiating event (e.g., reactor trip, turbine-generator trip);
- *Technical Specification Requirements* - provides information for success criteria and frequency of testing alignments;
- *Plant Procedures* - lists procedures used to define system alignments;
- *Assumptions* - lists items necessary to document areas not analyzed in part or in whole;

- *System Boundary* - defines the limit of the analysis relative to a physical of programmatic boundary;
- *Event Trees and Event Tree Split Fractions* - lists cross-references of the analyzed system to the associated event trees and split fractions;
- *Basic Event Cross Reference* - translates fault tree basic events to equipment descriptions and identification numbers;
- *Common Cause Modeling* - describes modeled common cause groups;
- *Maintenance Alignments* - describes the system configuration (including frequency and duration) when certain maintenance or testing activities are performed;
- *Recovery Factors Based on System Split Fractions* - lists operator actions necessary to restore the system or functions following failure of the analyzed system;
- *Modeling Notes* - provides other information relative to the system analysis;
- *Fault Tree* - outlines the graphical fault tree; and
- *References* - documents materials used in the system analysis.

ADDENDUM 3

INITIAL SCREENING CRITERIA

Title of Change:_____

_____

Description of Change:_____

_____

_____

_____

1. Is the change associated with a system modeled in the PSA?

   Yes____ No____

2. If yes, is it associated with a component modeled in the PSA?

   Yes____ No____

3. Could the change affect a system or event sequence modeled in the PSA?

   Yes____ No____

If any answer to the above questions is "Yes" then proceed to "PSA CHANGE EVALUATION"

If any answer was "No", then complete signature block and file in applicable System or Event Tree Notebook.

_____	_____	_____
Name (print)	Signature	Date

ADDENDUM 3

PSA CHANGE EVALUATION:

1. Does the change affect the items or attributes listed in Addendum 2? Yes____ No____

   1a) If "No," then document results.

   1b)If "Yes," then proceed to Question 2 below.

2. Does the change require a revision to the PSA Risk Model? Yes____ No____

   2a) If "No," then document results.

   2b) If "Yes," then proceed to Question 3 below.

3. Does the change require immediate update? Yes____ No____

   3a)If "No," then place change in "Pending PSA Changes" Notebook for next periodic PSA update.

   3b) If "Yes," then proceed to Question 4 below.

4. Does the change require requantification of the PSA model(s)? Yes____ No____

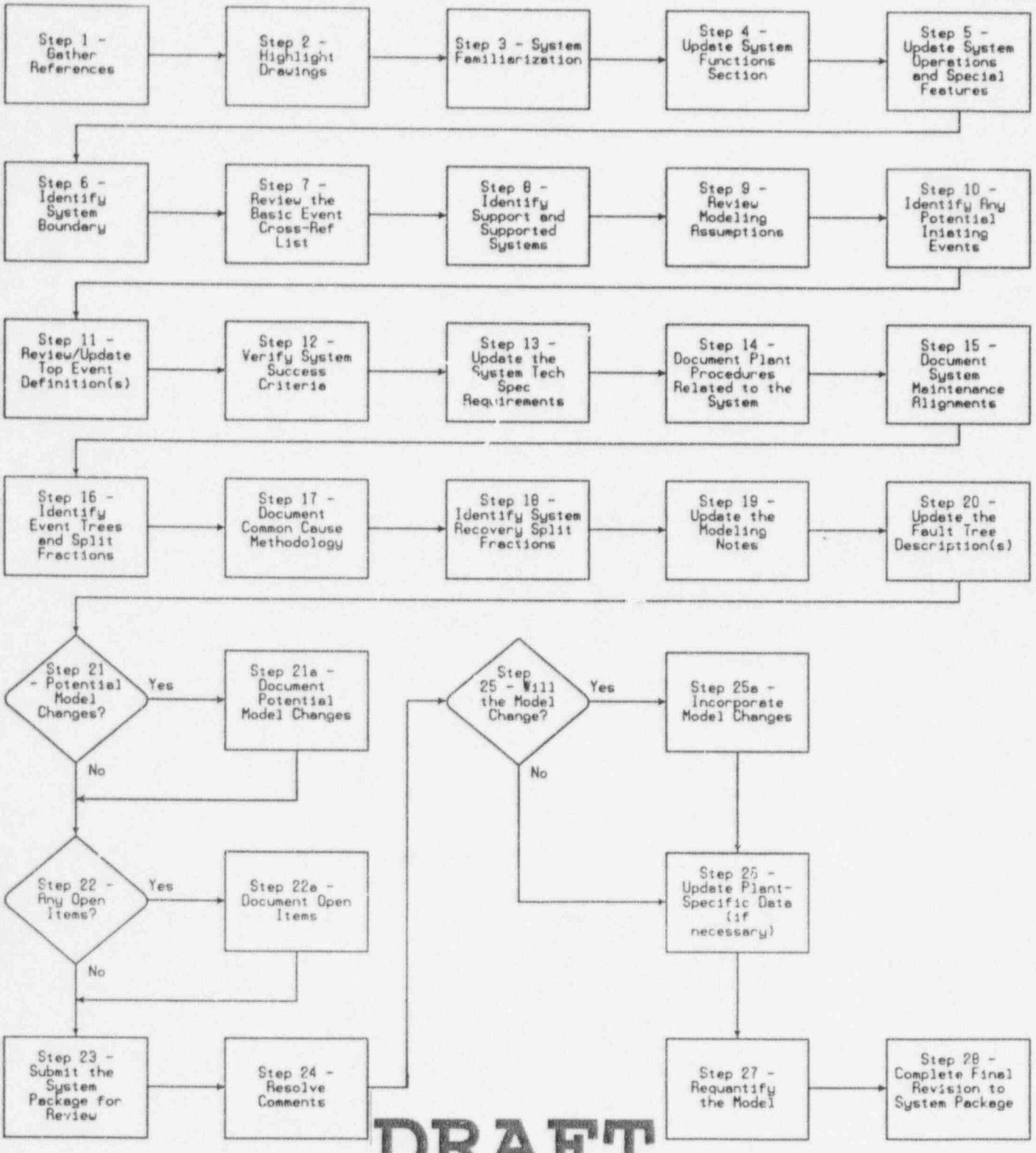
   4a)If "No," then place change in "Pending PSA Changes" Notebook for next periodic PSA update.

   4b) If "Yes," then update, requantify, and document PSA risk model change.

_____	_____	_____
Name (print)	Signature	Date

ADDENDUM 3

PLANT CHANGE SCREENING FLOW CHART



ADDENDUM 4
NOTEBOOK UPDATE METHODOLOGY & FLOW CHART

PSA NOTEBOOK UPDATE METHODOLOGY

Step 1 - Gather References

Review the reference list contained in the Event Tree or System Notebook from the most recent system package and gather the latest revision to the referenced documents. Some references may not be listed in the system package and must be located in the library. Based on the gathered references, update the system package reference list.

Step 2 - Highlight Drawings

[This step is only applicable to System Notebooks.] Using the Fault Tree(s), highlight the applicable drawings (i.e., P&IDs, Logic Diagrams, Elementaries, etc.) for the modeled components in order to verify system components with the PSA model.

Step 3 - Become Familiar with the System

For System Notebooks: Use the referenced drawings, procedures, and applicable UFSAR and DBD sections to verify the operation of the system and any special features related to the PSA model. Also, review the RISKMAN system notebook(s) for the system top event(s) to verify the PSA modeling of the system.

For Event Tree Notebooks: Verify that event tree top events are consistent with system level fault tree top events.

Step 4 - Update System Function Section

Review and, if required, update the System Function section by briefly describing the system and how the function(s) relate to the PSA.

Step 5 - Update System Operations and Special Features

Review, and if required, update the System Operations and Special Features section by describing the design basis of the system and defining any deviation from the design basis that was modeled in the PSA.

Step 6 - Identify System Boundary

Based on the design drawings and the system model, identify the analyzed boundary of the system. The analyzed boundary is defined as the system components analyzed in the PSA.

Step 7 - Review the Basic Event Cross-Reference List

Compare the Basic Event Cross-Reference List to the Fault Tree(s) to ensure that the correct components and failure modes are listed. Modify the Basic Event Cross-Reference if necessary.

Step 8 - Identify Support and Supported Systems
Identify support and supported systems, as applicable, and define the analyzed boundary conditions. Support systems are those systems upon which the subject system relies upon for effective operation. Supported systems are those systems that rely on operation of the subject system for effective operation. The analyzed boundary conditions are the states of the support systems for which the subject system is analyzed.

Step 9 - Review Modeling Assumptions
Review, and if required, update PSA modeling assumptions.

Step 10 - Identify Any Potential Initiating Events
Identify the potential for any initiating events (e.g., LOCA, Transients, etc.) based on the system configuration.

Step 11 - Update Top Event Definitions
Based on the PSA model and the system description, review the top event definitions and update, if necessary.

Step 12 - Verify System Success Criteria
Verify the system success criteria based on the UFSAR, Technical Specifications, DBDs, or procedures. The system success criteria are the minimum system operating requirements to satisfy the top event.

Step 13 - Update the System Technical Specification Requirements
Update the system Technical Specifications requirements by obtaining a copy of the current applicable Technical Specifications section(s).

Step 14 - Document Plant Procedures Related to System
For Operations, Maintenance and Engineering procedures, document those procedures Related to the System, noting any special alignments and/or testing configurations required by the procedure. This section should include any additional testing and test frequencies specified by the Technical Specifications. Document specific procedural steps that provide key modeling assumptions, operational features, system alignments or component actuations.

ADDENDUM 4
NOTEBOOK UPDATE METHODOLOGY & FLOW CHART

Step 15 - Document System Maintenance Alignments
Based on station procedures and the RISKMAN system report, document the system maintenance alignments, providing specific documentation as to the composition of each alignment and the procedure steps where the alignments were identified. For example, does an alignment include a human error term for failure to return to normal alignment or is it simply comprised of unavailability due to maintenance?

Step 16 - Identify Event Trees and Split Fractions
Identify the event trees in which the System Level Fault Tree top events are questioned and document descriptions of the event tree split fractions based on the RISKMAN system notebook.

Step 17 - Document Common Cause Modeling Methodology
Document the System Common Cause modeling scope as appropriate. Define common cause groups and provide information relative to why certain components are not included in Common Cause models.

Step 18 - Identify System Recovery Split Fractions
Identify and describe any system split fractions used in the operator recovery analyses.

Step 19 - Update the Modeling Notes
Review and, if required, update the Modeling Notes section by providing a brief overview of the model.

Step 20 - Update the Fault Tree Description(s)
Briefly describe the fault tree(s) included in the system package.

Step 21 - Any Potential Modeling Changes?
Determine if any of the above changes will potentially affect the system model.

Step 21a - Document Potential Modeling Changes
Document any potential changes to the model arising as the result of the system package update.

Step 22 - Any Open Items?

ADDENDUM 4
NOTEBOOK UPDATE METHODOLOGY & FLOW CHART

Determine if the system package contains any outstanding issues which cannot be resolved without further guidance.

Step 22a - Document Open Items
Document and provide status for the open items.

Step 23 - Submit the Package for Review
Submit the system package for review to the PSA project team.

Step 24 - Resolve Comments
Resolve any resulting comments on the package.

Step 25 - Any Changes to the Model?
Identify if any of the potential PSA changes will, in fact, change the model.

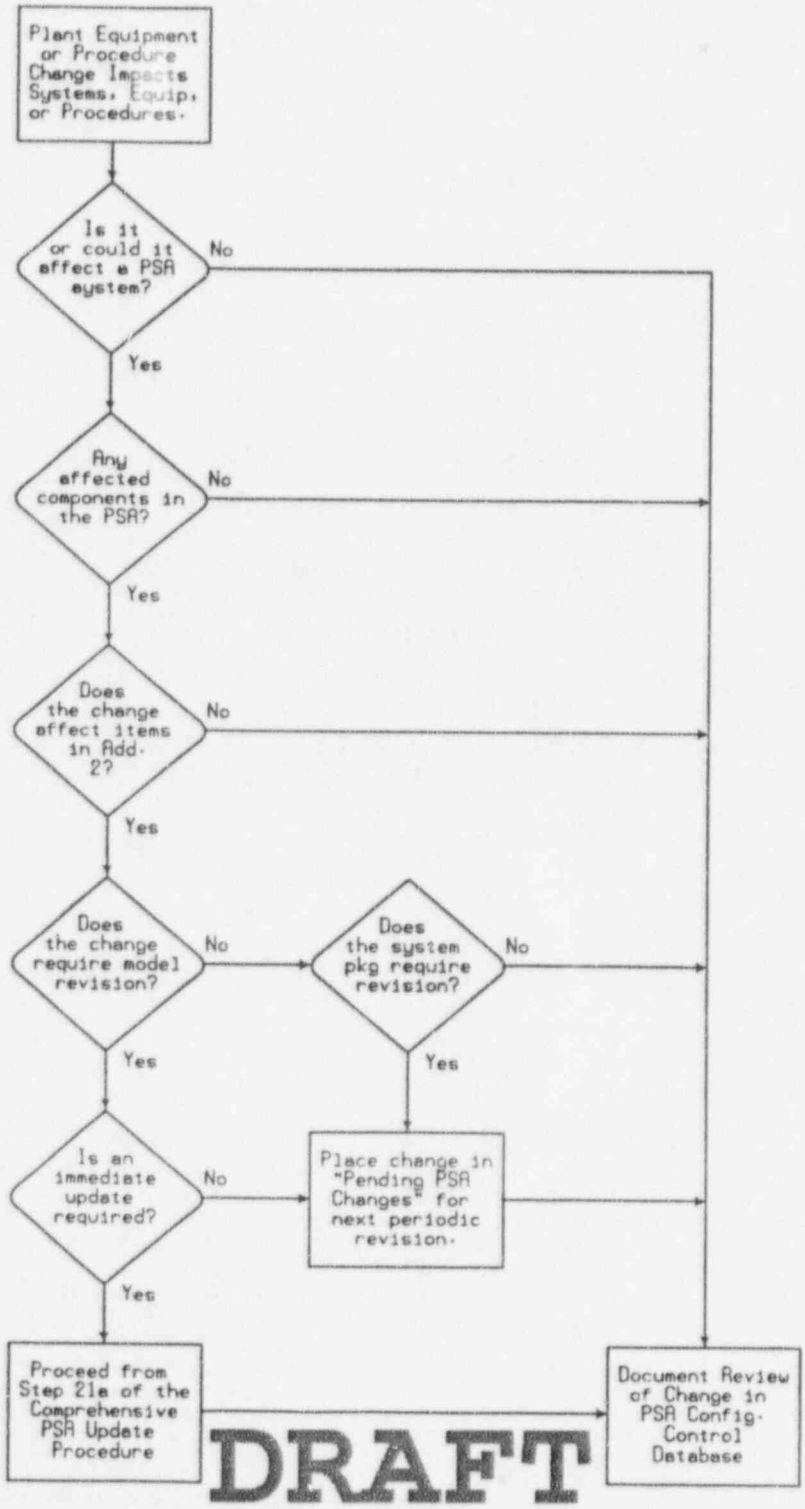
Step 25a - Incorporate Model Changes
Incorporate any final model changes, including fault tree changes, rule modifications, maintenance alignment revisions, etc.

Step 25b - Requantify the Model
Requantify the model for the incorporated model changes.

Step 26 - Complete the Final Revision
Complete the final revision to the package based on the changes to the model and/or resolution of comments.

ADDENDUM 4
NOTEBOOK UPDATE METHODOLOGY & FLOW CHART

NOTEBOOK UPDATE FLOW CHART



ATTACHMENT 6

STATION PERFORMANCE DATA COLLECTION, CATEGORIZATION, AND REPORTING PROCEDURE - DRAFT

H:\WP\WORKING\PGP02\ZA0004.00M	0PGP02-ZA-0004	Rev. 0	Page 1 of 23
Station Performance Data Collection, Categorization, and Reporting			
XXX Quality	XXX Safety-Related	Usage: xxxxx	Effective Date:

Name	Name	Name	Department
PREPARER	TECHNICAL	USER	COGNIZANT ORGANIZATION

Table of Contents Page

1. 0 Purpose and Scope 2

2. 0 Definitions 2

3. 0 Responsibilities 2

4. 0 Requirements 3

5. 0 Process 3

6. 0 Support Documents 5

Addendum 1 Departmental Performance Information (Typical) 6

Addendum 2 Organizational Codes 7

Addendum 3 Attribute Codes 8

Addendum 4 Weighting Factors 23

1.0 Purpose and Scope

1.1 This procedure prescribes the methods for identifying, collecting and categorizing performance data for use in STP Comprehensive Risk Management activities. This procedure applies to all STP personnel.

2.0 Definitions

2.1 Performance Information is all information including electronic media that would indicate the relative performance level of functional areas at the South Texas Project.

2.2 Weighting Factors are significance factors automatically assigned by the computer based upon performance information input coding.

2.3 Categorization is the assignment of a coding structure to data based upon factors such as system, component, and activity.

3.0 Responsibilities

3.1 All plant personnel are responsible for the identification of performance information. Performance information includes, but is not limited to, Condition Reports, Operating Logs, Electronic media such as computer printouts, etc.

3.2 Department managers are responsible for providing performance data input to the Operating Experience Group. This performance data may include, but is not limited to, the following:

- Department Self-assessment reports
- System Health reports
- Nuclear Regulatory Commission Inspection Reports including Resident Inspector's reports, announced and unannounced inspections, etc.
- Institute of Nuclear Power Operations reports including Evaluation and Assistance reports, Trip reports, Significant Operating Experience Reports, etc.
- Independent Oversight Results such as assessments and audits
- Equipment Performance

3.3 Quality Department personnel are responsible for inputting observed performance information into the South Texas Project (STP) Performance Reporting & Identification Database (PR&ID).

3.4 The Operating Experience Group is responsible for categorization, assigning performance classifications, assigning weighting factors, assigning trend codes, and ensuring the proper input of performance data, other than listed in 3.3 above, in the PR&ID.

3.5 The Operating Experience Group is also responsible for reportingperformance data and forwarding of that data to the appropriateworking group.

4.0 Requirements

4.1 Collection of performance information.

4.1.1 Department managers shall cause performance information, as identified in Addendum 1, to be collected and forwarded to the Operating Experience Group.

4.2 Categorization of performance information:

4.2.1 The Operating Experience Group shall review and categorizeperformance information.

4.2.2 The Operating Experience Group shall categorize performance data by systems, components and activity in accordance with Addendum 2.

4.2.3 The Operating Experience Group shall ensure necessary data is entered into the appropriate database.

4.3 Reporting of performance information:

4.3.1 The Operating Experience Group shall, on a periodic basis, generate performance reports, analyze captured data, and forward the reports and analysis to the appropriate Working Group.

5.0 Process

5.1 Performance data

5.1.1 Operating Experience Group will compile performance data supplied by individual departments into categories in accordance with addenda two.

5.1.2 Performance data will be evaluated against the following criteria and assign the appropriate grade:

- 4) Weakness: Performance or a condition that resulted in a significant condition adverse to quality;
- 3) Needs Improvement: Performance or a condition that resulted in a condition adverse to quality.
- 2) Satisfactory Performance: Performance that meets existing requirements.
- 1) Strength: Exemplary performance that exceeds goals/expectations.

5.1.3 Recording of pertinent information, categorization, grading, and input of performance indications will be accomplished on the Generic Performance Input Form, within the PR&ID database.

5.1.4 Attribute codes will be assigned in accordance with addendum (3) to completed Condition Reports.

5.1.5 Graded Quality performance data shall be input into the PR&ID database in accordance with Quality procedures.

5.1.6 The Operating Experience Group shall compile performance data and sort by organization/attribute codes using addenda two and three.

5.1.7 Compiled performance data output shall be graded one through five in accordance with the following criteria:

1) Sustained Excellence

2) Good with an improving trend

3) Good performance

4) Good with a declining trend

5) Poor performance

5.1.8 The Operating Experience Group shall periodically report the data to the appropriate Working Group for evaluation and use in the decision making process of the Comprehensive Risk Management program.

6.0 Support Documents

Addendum 1: Department Performance Information (Typical)

Addendum 2: Organization Codes (Contained in CAP database table)

Addendum 3: Attribute Codes

Addendum 4: Weighting Factors (to be determined)

Performance information includes, but is not limited to the following:

- Corrective Action Program (CAP) database
- Independent Oversight Results
- Self-assessment Reports
- Equipment History (successes/failures)
- System Health Reports
- NRC Inspection Reports
- Corporate Management Audit Program (CMAP) Reports
- Joint Utility Management Audit (JUMA)
- SALP Assessments
- INPO Reports

As listed in the CAP database Organization table.

A: Radiation Protection/Contamination Control

ACA1 ALARA practices: Requirements delineated in Procedure 0PGP03-ZR-0050, Radiation Protection Program. It identifies such items as Radiation Work Permits, Health Physics coverage, and procedural implementation and compliance.

ACA2 Contamination controls are exercised: Controls, as delineated in Procedure 0PGP03-ZR-0044, Contamination Control Program, are exercised to minimize contaminated areas and levels in order to reduce radioactive waste and the risk of personnel contaminations.

ACA3 Dressing/undressing techniques: Protective clothing is donned and removed in the correct sequence to prevent the spread of contamination. Protective clothing is disposed of in the correct receptacles as delineated in Procedure 0PGP03-ZR-0044, Contamination Control Program. Donning and removal of protective clothing is performed in accordance with requirements in the General Employee Training Program.

ACA4 Frisking techniques: Procedure 0PGP03-ZR-0044, Contamination Control Program identifies when frisking is required. Frisking techniques are followed as delineated in the General Employee Training Program. Procedures/work documents, tools, etc. are properly frisked out of the RCA.

ACA5 RWP followed as written: All RWP requirements are known to personnel performing the work activity and the requirements in the RWP are followed.

ACA6 TLD, ALNOR, etc., are correctly controlled and worn: Self explanatory.

ACA7 RWP is ready: The RWP was submitted to Health Physics in an adequate amount of time for the RWP to be prepared. The RWP is completed and ready for the job.

ACA8 Radwaste volume reduction is exercised: Self-explanatory.

ACA9 Tools are obtained from the hot tool room when they are to be used in a potentially contaminated area: Self-explanatory.

ACA10 Only required tool, lubricants, solvents, etc., are taken into a potentially contaminated area: Self-explanatory.

ACA11 Radioactive shipments are properly controlled: Self explanatory.

ACA12 Radioactive releases are properly analyzed, monitored, and controlled: Self explanatory.

B: Industrial Safety/Fire Protection

ACB1 Fire protection is proper/not compromised: Fire detection and protection systems meet the requirements as delineated in Procedure 0PGP03-ZF-0001, Fire Protection.

ACB2 Personnel safety equipment usage: During the performance of an activity, industrial safety requirements are followed, as delineated in the Accident Prevention Manual and Procedure 0PGP03-ZI-0001, Industrial Safety Program, in order to minimize the risk of injury or illness to employees due to recognized hazards in the work environment. This includes the use of ear plugs, eye protection, safety belts/harnesses, rubber gloves, electrical shock equipment, face shield, welding hoods, gloves, etc.).

ACB3 Safe work practices: In the performance of activities, safe work practices are followed, for example:

a. Ladders are tied down.
b. Scaffolding is erected when accessibility to a component is unsafe.
c. Long sleeve shirts and gloves are not used around rotating equipment.
d. Electrical safety equipment is used racking in high voltage breakers.
e. Precautions are taken to properly ground electrical equipment before work commences.
f. Proper lifting techniques are used

ACB4 Fire barrier boundary breach is approved: Administrative controls for breaching a fire barrier and for ensuring the restoration of the fire barrier are delineated in Procedure 0PGP03-ZF-0003, Breaching of Fire Barriers.

ACB5 Hot work permits are used and correct: Hot work permits are completed and approved as required by Procedure 0PGP03-ZF-0006, Control of Ignition Sources.

ACB6 Storage of flammable materials: Ensure flammable materials is stored in accordance with_____.

ACB7 Transient fire loads evaluated: Ensure that only fire resistant wood is brought into the PA, etc .

C: Configuration Management/Material Control

ACC1 Material issued is controlled: Material that is issued and staged or placed in impound storage are controlled per the requirements of Procedure 0PGP03-ZG-0001, Material Control.

ACC2 Drawings/Procedures/Specifications are maintained in an "as-built configuration: Drawing/Procedures/Specifications are updated to reflect current plant configuration.

ACC3 Inert gas blankets correctly maintained: (Self explanatory)

ACC4 Tags (danger, caution, do not operate, etc.) are hung on the correct equipment, and are legible: Self-explanatory, correct unit/equipment/component are verified.

ACC5 Clearances are administratively and technically correct: Equipment Clearance Orders meet the requirements as delineated in Procedure 0PGP03-ZO-EC01, Equipment Clearance Orders, and adequately protect personnel performing work activities and the equipment the work in being performed on (this includes correct use of clearance, caution and test tags).

ACC6 Maintenance of stored items scheduled/performed: Self explanatory.

ACC7 Protective covers maintained and not deteriorated: Self explanatory.

ACC8 Ready access to stored items: Self explanatory

ACC9 RIDR hold tags correctly attached to stored items: Self explanatory.

ACC10 Storage of expendable and hazardous materials maintained: Self explanatory.

ACC11 Shelf life: Material shall not exceed the recommended life of the product as delineated by manufacturer or engineering requirements. Shelf life starts at the date of manufacture and continues until such time as the manufacturer or engineering deem the product unusable.

ACC12 Control of materials and personnel into work areas: CAM

ACC13 Access control into warehouse areas: Self explanatory.

D: Communication

ACD1 Verbal/written instructions are adequate, and do not conflict with other instructions: Self-explanatory, within the knowledge of the personnel performing or evaluating task.

ACD2 Communications between participants in activity is apparent and clear: Participants in the activity clearly convey information, and ensure that the information sent and received is understood. Personnel ensure that pertinent information is conveyed to appropriate participants, to assist in their overall understanding of the activity and activity status. Expedient communications of needs, expectations and/or possible problems to appropriate personnel and/or organization levels occurs.

ACD3 Information/instructions are obtained prior to starting the job: Verify that personnel performing the activity are adequately informed of any information/instructions that are not documented in the procedure (i.e., start times, activity location, applicable RWP, participants, contact points, etc.,) are conveyed to and understood by participants in the activity.

E: Work Practices

ACE1 Activity expectations and pertinent information are clear to workers: Expectations and pertinent information are adequately covered in pre-job briefing in accordance with 0PGP03-ZA-0090, Work Process Program. Some activities do not have required topics for the pre-job brief. These briefings should include information such as:

a. Precautions and limitations of the evolution.
b. Prerequisites
c. Major Steps.
d. Lessons learned from previous performance of the evolution.
e. Expected response during the evolution.
f. Responsibilities of participants.
g. Radiation exposures/ALARA Review.
h. Safety hazards.
i. Methods of communication.
j. Contingencies

ACE2 Post activity/job meeting: If appropriate, a post activity/job meeting is performed to critique the activity performed, identify lessons learned (both positive and negative), discuss problems encountered, identify a more effective way to perform the activity, etc..

ACE3 Availability of parts, materials, test equipment: All necessary and correct parts, materials and/or test equipment is readily available for use at the commencement of the activity.

ACE4 Needed tools, materials, and/or equipment are obtained before starting the activity: All needed tools, materials, and/or equipment (testing, instrumentation, etc.,) are obtained, staged, and/or installed before the start of the activity.

ACE5 Time allotted for personnel to prepare for activity/performance of prerequisites: Personnel are provided adequate time to prepare for and perform activity prerequisites.

ACE6 Time allotted for task: Time allotted for task is adequate to perform the activity in a controlled, quality manner, without placing unnecessary burden on the performers.

ACE7 Verification that condition of the unit can support the activity: The unit is in a condition that the performance of the activity will not create a initiator/event, compromise the safe operation of the plant, or compromise any safety system required to mitigate an accident.

ACE8 Barriers/signs are respected: Requirements delineated in Procedure 0PGP03-ZI-0011, Warning Signs and Barriers.

ACE9 Clearance boundaries are respected: Personnel performing activity do not work outside equipment clearance, caution, and test tag boundaries. Tag placements and component positions are not changed, unless performed by Plant Operations or approved personnel.

ACE10 Correct tools are used: The tools used are appropriate for the job. Any specialty tools required have been obtained prior to the start of the job (e.g., refrigerant wrenches on the Essential Chillers, etc.).

ACE11 Dual/independent verification: Dual/independent verification requirements, as delineated in Procedure 0PGP03-ZA-0010, Performing and Verifying Station Activities, are followed.

ACE12 M&TE installed/used correctly and calibration is current: Ref. procedure 0PGP03-ZM-0007. The following attributes will be listed on the M&TE issue record sheet.

a. Description
b. ID No.
c. Calibration Due Date, as applicable
d. Date Issued
e. Area or Group
f. Name, badge number, and phone number of user
g. Name and phone number of users supervisor
h. Identity of person issuing the M&TE

Make sure that the calibration sticker on the calibrated instrument matches the M&TE issue record/etched number on the M&TE, and is within the allowable date.

ACE13 Rigging practices/techniques: Safe rigging and lifting practices are performed per the requirements in Procedure 0PGP03-ZI-0026, General Rigging and the Rigging Handbook.

ACE14 Self-checking applied to ensure correct unit/train/component (STAR process): The STAR process is used during the entire performance of the activity to ensure correct unit/train/component.

ACE15 System tag-out is verified: Tag-out has been verified to provided required protection for personnel/equipment by the person performing the work activity before the work activity commences. The appropriate person has signed on-to the equipment clearance order after verifying the tag-out if appropriate before the work activity commences.

ACE16 Work start permission is obtained: Before work commences, work start permission is obtained from Plant Operations and/or approval authority.

ACE17 Access control maintained: This attribute includes the following: Activity meets requirements delineated in Procedure 0PGP03-ZS-0001, Personnel Access Control, and for personnel access control requirements. Vehicle access control requirements are delineated in Procedure 0PGP03-ZS-0002, Vehicle And Material Access To Protected Area. Requirements for access control of tools, personnel and materials in a Zone I, II and III Housekeeping Area are delineated in Procedure 0PGP03-ZA-0098, Station Housekeeping.

F: Training/Qualifications

ACF1 Personnel qualifications/certifications verified: Personnel performing the task are qualified to perform the activities assigned (certified or qualified). This is verified by evaluating TRDS records and/or hard copy qualification records of personnel. Personnel performing the task as a part of On-The-Job Training are under the direction and control of a qualified training instructor.

ACF2 Site specific training is identified/obtained: Site-specific administrative training requirements commensurate with job responsibilities are identified and performed for staff augmentation and specialty contractors. Departmental required reading cannot be exempted for staff augmentation contractors performing tasks independently. Requirements are delineated in Procedure 0PGP03-ZT-0138, Contractor Training and Qualification Program, and 0PGP03-ZT-0148 for PMPI modification work.

ACF3 OJT/OJE conducted properly: Self explanatory.

G: Management Oversight/Involvement

ACG1 Number of qualified personnel assigned to the task: The number of personnel assigned to the task is adequate to complete the job in a quality/timely manner.

ACG2 Management/supervision at activity is actively involved: Management/supervision provide the appropriate support to ensure the activity is completed properly. Amount of participation is dependent on the experience and skill of the worker(s), and the amount of detail in the instructions used to perform the activity. Management/supervision personnel involved in the activity maintains a big-picture perspective of the activity.

ACG3 Overtime control (individual/personnel): Key personnel do not violate Technical Specification requirements for overtime, as delineated in Procedure 0PGP03-ZA-0116, Overtime. Any necessary excedence of Technical Specification overtime is approved and documented on the required form by appropriate management prior to personnel performing the overtime. Management minimized overtime by aligning work scope to available resources and commitment dates.

ACG4 Shutdown risk assessment: Evolution are assessed to confirm that the unit is in a condition that would not create an initiator/event, and to ensure the safety of the plant, personnel and the general public are not compromised. The requirements of Procedure 0PGP03-ZA-0101, Shutdown Risk Assessment are followed.

ACG5 Self-Assessment of department activities are periodically performed and used for enhancement: (self-explanatory)

ACG6 Safe and "error free" human performance is fostered: Nuclear and industrial safety in emphasized; Human performances errors are communicated with corrective measures and "lessons learned"; Self identification and reporting of problems is encouraged.

H: Coordination/Teamwork

ACH1 Coordination between work groups established: Groups involved in the activity understand their responsibilities in the performance of the activity and are cognizant of how their work interfaces with other groups involved in the activity. When problems are encountered, work groups involved are notified and participate in resolution.

ACH2 Teamwork is apparent (personnel work together to complete the task): Adequacy of activity coordination within and between groups, participants working as a team to complete the activity, and group interaction to ensure the activity is performed in an efficient manner from the planning stage to final activity completion.

I: Condition Reporting/Processing

ACI1 Adverse trend identification: Analysis of the CAP database by Operating Experience Group.

ACI2 Conditions/problems are reported in accordance with the Corrective Action Program (CAP): Problems identified during the activity and near misses are appropriately documented on Condition Reports as delineated in Procedure 0PGP03-ZX-0002, Corrective Action Program.

ACI3 Corrective Action effectiveness:

ACI4 Interdisciplinary review adequacy:

ACI5 JCO evaluation complete:

ACI6 Operability/reportability determination: Operability/reportability determinations are promptly performed by qualified individuals, when appropriate, as delineated in Procedure 0PGP03-ZX-0002, Corrective Action Program.

ACI7 Operating experience utilized:

ACI8 Process review adequacy (e.g., technical review, design verification, work package meets administrative requirements):

ACI9 Root cause analysis:

ACI10 Temporary modification adequacy:

ACI11 USQE evaluation complete:

ACI12 Follow-up performed on Condition Reports: Performance by either the owner or Quality.

J: Procedure/Work Instruction/Documentation

ACJ1 Documents used are up-to-date: The work documents (procedures, drawings, preventive maintenance, work packages, specifications, etc., used to perform the work activity are the current revision.

ACJ2 Work package preparation is adequate/complete, including all necessary precautions, required permits and documentation: Work packages are prepared in accordance with the requirements of Procedure 0PGP03-ZA-0090, Work Process Program and The Planner Guide.

ACJ3 Written instructions are effective, and do not conflict with other instructions or requirements: Self-explanatory, within the knowledge of the personnel performing or evaluating task.

ACJ4 Drawings, and/or manuals are used: Procedures, drawings, a-and/or manuals are used to perform work activities. "In Hand" requirements for procedural use are followed, as delineated in Procedure 0PGP03-ZA-0010, Performing and Verifying Station Activities. The most recent revision of the document is used. If manuals or drawings are used, changes are verified to be reflected in the document used.

ACJ5 Programmatic and procedural requirements (ASME Section XI, VETIPS, etc.) are followed where applicable: Self-explanatory.

K: Plant Support

ACK1 50.59 evaluation adequate and complete: Requirements delineated in Procedure 0PGP05-ZA-0002, 10CFR50.59 Evaluations.

ACK2 Engineering evaluations are documented and justifiable: Clarification on the understanding of design function can be written on the applicable work document; however, if the component no longer matches it's designed fit/form/function or acceptance criteria is not met during testing, then a Condition Report must be generated and dispositioned as a Condition Report Engineering Evaluation (CREE). The final disposition of the CREE will direct future work activities (use-as-is or repair). The CREE process is defined in Procedure 0PGP04-ZA-0002, Condition Report Engineering Evaluation Program.

ACK3 Support is timely/effective: Support of activities, such as evaluating work packages; providing a Justification For Continued Operation (JCO), operability determination, or a Conditional Release Authorization (CRA); functioning as the Test Manager; evaluating equipment problems in the field; Providing inspection coverage; Providing plant operations support for testing, etc.; Providing additional maintenance support, is timely, effective and proactive.

ACK4 Design Change Packages(DCP) are prepared in accordance with 0PGP04-ZE-0309: Design information is current and correct and the assumptions used are based on sound engineering practices. Regulatory requirements and design bases are properly implemented, design review performed satisfactorily, appropriate post modification tests and the acceptance criteria identified, design information properly incorporated into project documents and operational documentation impact assessment correctly performed.

L: Vendor/Contractor Performance

ACL1 Contractor compliance with purchase orders or contract documents: Self-explanatory, within the knowledge of the personnel performing or evaluating task.

ACL2 Contractor condition reporting: Contractors are reporting self-identified deficiencies in accordance with HL&P approved procedures.

ACL3 Contractor on the approved vendor list: A list of vendors who have been evaluated by HL&P to specific criteria and have been found to be qualified to provide specific items and/or services. The AVL database is maintained on electronic media with controlled access to prevent unauthorized use or alterations.

ACL4 Contractor overview: This item becomes applicable anytime a contractor is involved in the work activity. The contractor is competent and capable of performing his job function to the expected level (example: Follows procedures and site and company policies).

ACL5 CTC oversight and involvement: Contract Technical Coordinator (CTC) has verified qualifications that Contract personnel are qualified as delineated in Procedure 0PCP03-ZT-0138, Contractor Training and Qualification Program.

M: Miscellaneous Environmental Conditions

ACM1 Area has adequate lighting: Self-explanatory, within the knowledge of the personnel performing or evaluating task.

ACM2 Area has adequate ventilation: Self-explanatory, within the knowledge of the personnel performing or evaluating task. For confined spaces, meets requirements of Procedure 0PGP03-ZI-0007, Confined Space Entry Program.

ACM3 Ambient conditions: Items classified to Level A or B are those that are sensitive to environmental conditions and require special measures for protection from one or more of the following effects: temperature outside required limits, sudden temperature changes, humidity and vapors. (ANSI 45.2.2, paragraph 2.7.1 and 2.7.2)

ACM4 Animal and bird control maintained in warehouse: Measures shall be taken to prevent the entrance of rodents and other animals into indoor storage areas or equipment to minimize possible contamination and mechanical damage to stored material. (ANSI 45.2.2, paragraph 6.2.5)

ACM5 Coatings and preservatives: The content of shipments shall be visually inspected to verify that the specified packaging and shipping requirements have been maintained. These inspections shall include verification that coatings and preservatives are applied in accordance with specifications, purchase orders or manufacturer's instruction. (ANSI 45.2.2, paragraph 5.2.2)

ACM6 Desiccant appropriately used: The content of shipments shall be visually inspected to verify that the specified packaging and shipping requirements have been maintained. These inspections shall include verification that the desiccant is not saturated, as indicated through the use of humidity indicators. (ANSI 45.2.2, paragraph 5.2.2)

ACM7 Designated smoking/eating areas maintained: Housekeeping zone requirements are delineated in Procedure 0PGP03-ZA-0098, Station Housekeeping.

ACM8 Equipment/item storage level and protection: Equipment/components are stored in accordance with established criteria and with adequate/correct protection from degradation.

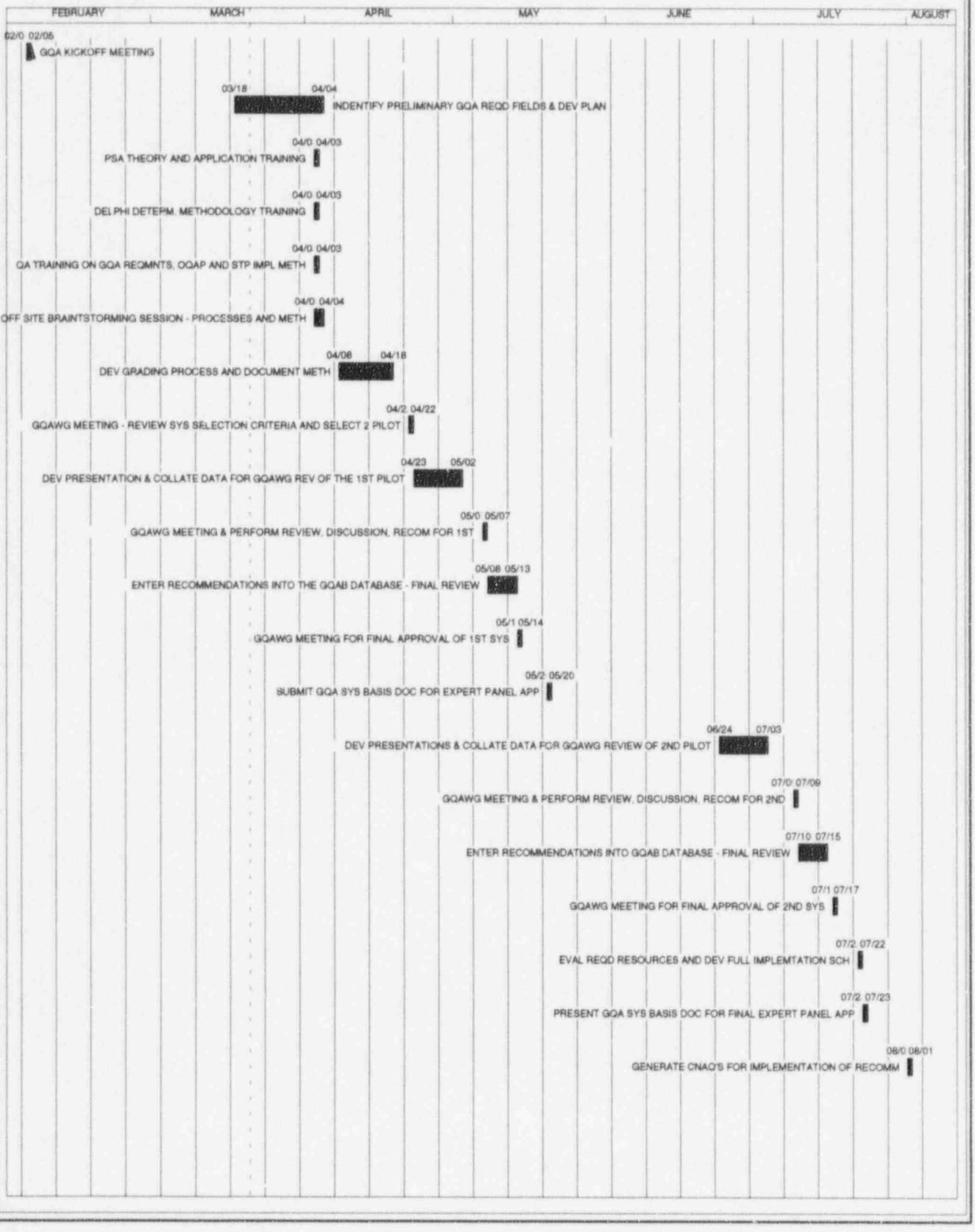
ACM9 Heater for stored equipment energized: Self explanatory.

ACM10 Housekeeping: Requirements delineated in Procedure 0PGP03-ZA-0098, Station Housekeeping. This procedure provides a method to ensure the material condition and cleanliness of the plant are maintained through a program of inspection, reporting, follow-up and correction.

ATTACHMENT 7

GRADED QUALITY ASSURANCE PROGRAM IMPLEMENTATION SCHEDULE

C:\SPDATA\GQA-0304.SCH



ATTACHMENT 8

EXPERT PANEL CHARTER
EXPERT PANEL MEMBERS LIST
WORKING GROUP MEMBERS LIST

AUGUST 17, 1995

CHARTER

GRADED QA/COMPREHENSIVE RISK MANAGEMENT EXPERT PANEL

PURPOSE:

The purpose of the Expert Panel is to guide the implementation of the Graded Quality Assurance/Comprehensive Risk Management Program at the South Texas Project.

MEMBERS:

The Expert Panel is composed of the Managers of Design and Systems Engineering, Nuclear Licensing, Industry Relations, the Supervising Engineer-Risk and Reliability Analysis, the Director of Quality and the Unit #1 Plant Manager. The Manager of Industry Relations is appointed chairman of the Expert Panel.

RESPONSIBILITIES:

1. Approve the criteria for assignment of systems, components and activities into safety significance categories,
2. Validate the assignment of systems, components and activities into safety significance categories,
3. Approve the criteria for assignment of QA measures to systems, components and activities
4. Validate the assignment of QA measures to systems, components and activities
5. Maintain cognizance over the implementation of the Graded Quality Assurance/Comprehensive Risk Management Program and adjust program criteria as appropriate

W F Cole — 08/17/95

Approved — Date

Group Vice President, Nuclear

Title

EXPERT PANEL MEMBERSHIP

S. L. Rosen (Industry Relations Manager) - Chairman

L. W. Myers	(Unit 1 Plant Manager)
S. E. Thomas	(Design Engineering Manager)
T. J. Jordan	(System Engineering Manager)
M. A. McBurnett	(Licensing Manager)
R. J. Rehkugler	(Quality Director)
C. R. Grantom	(Risk and Reliability Supervisor)

WORKING GROUP MEMBERSHIP

M. I. Forsyth (System Engineering) - Chairman

S. D. Blossom -	Work Control
R. K. Brinkley -	Operations Support
R. D. Fincher -	Quality Assurance
B. E. Mackenzie -	Operating Experience
S. B. Melton -	Design Support
A. C. Moldenhaur -	Risk and Reliability
M. S. Oswald -	System Engineering
J. M . Pinzon -	Nuclear Licensing
J. M. Savage -	Quality Assurance