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

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

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

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

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

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

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

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- 5.1.4.3 The Director, Quality is responsible for Independent Safety Engineering Group activities, audits, independent assessments, surveillances, performance monitoring, 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.
- 5.1.4.5 The Manager, Risk Management & Industry Relations is responsible for activities related to the Comprehensive Risk Management Program, including oversight of Probabilistic Safety Assessment activities. The Manager, Risk Management & Industry Relations serves as the Graded Quality Assurance Expert Panel chairperson.
- 5.1.5 The General Manager, Plant Services is responsible for implementing quality program requirements applicable to nuclear training, information systems, emergency response, records management and administration, and procurement and material control for STP.
 - 5.1.5.1 The Manager, Nuclear Training; Manager, Nuclear Information Systems; Manager, Emergency Response; Director, Records Management and Administration; and Director, Nuclear Purchasing and Materials Management report to the General Manager, Plant Services.
- 5.1.6 The General 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.

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1.0 PURPOSE

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

2.0 SCOPE

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

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

3.0 DEFINITIONS

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

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

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

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- 5.3.2 GQA is a process by which risk-based methodology [i.e., Probabilistic Safety Assessment (PSA)], deterministic insights, and performance-based information are combined and analyzed to determine what levels of programmatic controls are needed for structures, systems, and components (SSCs) and what levels of first line and independent oversight are needed to provide assurance that items will operate safely and activities are accomplished as prescribed.
- 5.3.3 Selected systems are evaluated, at the component level, by a cross-discipline Expert Panel comprised of high level station management. Initial evaluations are performed by the Working Group.
- 5.3.4 These recommendations are developed in consideration of systems' missions, component contribution to core damage frequency and risk achievement, components' critical attributes (needed to support system mission), performance, regulatory/QA requirements, and other deterministic considerations as prescribed in the Comprehensive Risk Management procedures.
- 5.3.5 Program control recommendations are developed by the Working Group and ultimately approved by the Expert Panel and forwarded to the site for implementation. Controls are implemented in three graded applications (i.e., "Full", "Basic", and "Targeted").
- 5.3.6 "Full" program controls are applied to safety-related SSCs categorized as being "high" safety significant/risk important. These "Full" levels of controls and oversight are designed to provide a high degree of confidence that SSCs perform safely and activities are performed as expected. Table I to the OQAP chapter prescribes the program commitments applicable to "Full" program activities.
- 5.3. "Basic" program controls are applied to safety-related SSCs categorized as "medium" or "low" safety significant/risk important. These are lower levels of control and oversight, designed to maintain/preserve those identified critical

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attributes of SSCs needed to support systems' critical functions. These controls are intended to reflect economical and efficient business practices. Table I to the OQAP chapter prescribes the program commitments applicable to "Basic" program activities.

- 5.3.8 "Targeted" program controls are applied to non-safety related SSCs categorized as "high" or "medium" safety significant/risk importance. Specific program controls are applied to those items in a selected manner, "targeted" at those characteristics or critical attributes that render the SSC significant or important.
- 5.3.9 Components that are highly reliable, yet whose failure would result in a significant increase in risk, will receive Full program coverage, or will be evaluated based on their risk importance to ensure that Full program controls are applied to their critical attributes.
- 5.3.10 SSCs governed by the OQAP shall retain "Full" program coverage until such time as prescribed risk-informed, performance-based analyses are completed and approved, and they are placed into other program categories (i.e., "Targeted" or "Basic") as appropriate.
- 5.3.11 A vital element of the GQA program is the "feedback" loop. On a periodic basis, and as prescribed in the Comprehensive Risk Management procedure, the GQA Working Group and Expert Panel shall review any changes to the PSA information and performance/operating experience that could result in recategorization of an SSC. These reviews are also used to assess the effectiveness and appropriateness of in-place quality program controls. Adjustments shall be made as determined necessary. Those components for which an increase in failure rates results in a significant increase in risk will have Full program controls established.

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TABLE I
PROGRAM COMMITMENTS

R.G./ANSI STANDARD	FULL PROGRAM	BASIC PROGRAM
ANSI N45.2.13, 1976 (cont'd)	<p>5.3.and 5.4 - Provisions are established for, in special cases and with management approval, completion of these activities after award of contract.</p> <p>9.0 - This section will be implemented based on the scope, complexity and safety significance of the items being procured.</p>	<p>Same as full.</p> <p>7.2.1, 7.3.1 - These activities will only be implemented as deemed necessary.</p> <p>Same as full.</p> <p>10.3.1 - This section will only be implemented as deemed necessary.</p> <p>12 - This section will only be implemented as deemed necessary for audits of suppliers.</p>
R.G. 1.144, rev. 1 (9/80)	<p>C.1 - refer to table coverage of R.G. 1.28 and ANSI N45.2. refer to table coverage of R.G. 1.74 and ANSI N45.2.10</p> <p>C.3.a(1) - refer to table coverage of R.G. 1.33 regarding audit frequency.</p>	<p>Same as full.</p> <p>Same as full.</p> <p>c.3.b STP will audit vendors only as deemed necessary.</p> <p>STP will perform biennial evaluations.</p>
ANSI N45.2.12, 1977	No exceptions taken.	STP will audit vendors only as deemed necessary. These audits will be conducted as unplanned/unscheduled audits.
R.G. 1.146, rev. 0 (8/80)	<p>C.1 - refer to table coverage of R.G. 1.28 and ANSI N45.2. refer to table coverage of R.G. 1.74 and ANSI N45.2.10</p>	Same as full.

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- 5.3.3 Actions to be taken to assure timely corrective action on conditions adverse to quality.
- 5.4 Procedures which identify and track conditions adverse to quality shall require management review of each report to determine if the condition is significant. For significant conditions adverse to quality, the cause of the condition and the corrective action taken to preclude repetition shall be documented and reported to appropriate levels of management.
- 5.5 Measures shall be established for review and evaluation of conditions adverse to quality for reportability to the NRC as required by References 4.2, 4.3, and 4.4, as appropriate.
- 5.6 The authority to stop work has been assigned to the 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 conditions adverse to quality. The results of these reviews and analyses are reported to the affected organization and executive management, and are audited by the Quality organization. Adverse trends shall be evaluated and processed in accordance with controlling procedures.
- 5.8 For medium and low safety significant SSCs treated by the Basic program controls, measures shall be established to conduct apparent cause determination and to trend failures to assist in evaluating the need for more detailed root cause analysis (if excessive failures occur) and proper corrective action. Further, particular consideration will be given to assessing the potential implications of such failures generically to similar SSCs treated by the Full program.

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