

<b>SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION</b>  <b>OPERATIONS QUALITY ASSURANCE PLAN</b>  <b>PROGRAM DESCRIPTION</b>	NUMBER	REV. NO.
	Chapter 2.0	7
	PAGE 1 OF 14	
	EFFECTIVE DATE	12-20-91

## 1.0 PURPOSE

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

## 2.0 SCOPE

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

## 3.0 DEFINITIONS

- 3.1 None

## 4.0 REFERENCES

- 4.1 10CFR50, Appendix B  
 4.2 10CFR71, Subpart H  
 4.3 ASME B&PV Code  
 4.4 OQAP Chapter 14.0, Records Control  
 4.5 10CFR50.63, Loss of All Alternating Current Power

QA-005

QA-005

<b>SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION</b>  <b>OPERATIONS QUALITY ASSURANCE PLAN</b>  <b>PROGRAM DESCRIPTION</b>	NUMBER	REV. NO.
	Chapter 2.0	7
	PAGE 2	OF 14
	EFFECTIVE DATE	12-20-91

## 5.0 REQUIREMENTS

- 5.1 The Operations Quality Assurance Program consists of various documents which identify and provide the mechanism for verifying implementation of commitments, requirements, and actions necessary to attain quality assurance objectives.
- 5.2 The OQAP is prepared to implement the STPEGS Operations Quality Assurance Program.
  - 5.2.1 The OQAP provides policies to be implemented for the JTPEGS. The OQAP also assigns responsibilities necessary for the attainment of quality assurance objectives and the verification of conformance to established requirements.
  - 5.2.2 Attachment I provides a matrix of 10CFR50, Appendix B criteria to the OQAP chapters.
- 5.3 Establishing Policies and Goals
  - 5.3.1 QA policies and goals for STPEGS are defined in the OQAP. The Group Vice President, Nuclear has overall responsibility for quality assurance.
  - 5.3.2 The General Manager, Nuclear Assurance, is responsible for the development of the Quality Assurance (QA) Program. The minimum requirements established for this position are:
    - 5.3.2.1 A bachelors degree in science or engineering, or an equivalent combination of education and experience.
    - 5.3.2.2 Five years experience in the management of quality assurance. Fifteen years experience in industry quality assurance standards, and federal and state regulatory requirements.

<b>SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION</b>  OPERATIONS QUALITY ASSURANCE PLAN  PROGRAM DESCRIPTION	NUMBER Chapter 2.0	REV. NO. 7
	PAGE 3 OF 14	
	EFFECTIVE DATE 12-20-91	

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

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

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

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

#### 5.4 Organizational Independence

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

5.4.1.1 Identify quality problems.

5.4.1.2 Initiate, recommend, or provide solutions.

5.4.1.3 Verify implementation of solutions.

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

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

QA-009

<b>SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION</b>  <b>OPERATIONS QUALITY ASSURANCE PLAN</b>  <b>PROGRAM DESCRIPTION</b>	NUMBER	REV. NO.
	Chapter 2.0	7
	PAGE 4	OF 14
	EFFECTIVE DATE	12-20-91

## 5.5 QA Program

- 5.5.1 HL&P has established the Operations QA Program for the operations phase of the STPEGS, which includes testing, operation, maintenance, refueling, inservice inspection, and modification. The HL&P Nuclear QA Program for the operations phase requires that HL&P, its contractors, subcontractors, and vendors comply with the criteria established by 10CFR Part 50, Section 50.55a; 10CFR Part 50, Appendix A, General Design Criterion (GDC) 1; 10CFR Part 50, Appendix B, and 10CFR Part 71 Sub-Part H. It is the intent of HL&P to comply, as defined herein, with the applicable American National Standards Institute (ANSI) N45.2 daughter standards, ANSI N18.7, and implementing Regulatory Guides (RGs) as defined herein and in Updated Final Safety Analysis Report (UFSAR) Table 3.12-1.

## 5.6 Delegation of QA Functions

- 5.6.1 During normal operations the QA Program will be executed by STPEGS personnel, who may be assisted by subcontract personnel. During refueling, maintenance, and inservice inspection, first-level quality control inspection and nondestructive examination (NDE) activities may be subcontracted. However, STPEGS will retain responsibility for the total QA Program, and STPEGS NA personnel will perform audits and surveillance(s) of subcontracted QA activities.
- 5.6.2 When first-level quality control inspection and NDE are performed by STPEGS personnel, they are qualified and certified in accordance with applicable codes, standards, procedures, and other regulations. Monitoring and surveillance of the quality control and NDE activities shall be performed by Operations QA personnel.



<b>SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION</b>  <b>OPERATIONS QUALITY ASSURANCE PLAN</b>  <b>PROGRAM DESCRIPTION</b>	NUMBER	REV. NO.
	Chapter 2.0	7
	PAGE 5	OF 14
	EFFECTIVE DATE	12-20-91

## 5.7 Identification of Safety-Related Items and Services

- 5.7.1 The STPEGS QA Program described herein is applied to all activities affecting the safety-related functions of those structures, systems, and components which prevent, or mitigate the consequences of postulated accidents that could cause undue risk to the health and safety of the public. The safety-related structures, systems, and components controlled by the QA Program are listed in UFSAR Section 3.2, along with their associated fire protection systems. UFSAR Section 3.2 also identifies those quality-related structures, systems, and components (in addition to fire protection systems) which are not safety-related but to which the STPEGS Operations QA Program is applied.
- 5.7.2 The fire protection QA Program is part of the overall STPEGS Operations QA Program and is therefore under the management control of QA. Fire protection QA Program criteria are being implemented as part of the HL&P Operations QA Program, as defined in this OQAP.
- 5.7.3 Expendable or consumable items necessary for the functional performance of safety-related structures, systems, and components are subjected to quality assurance requirements as specified in written procedures. These procedures include provisions for review and control in accordance with industry standards and specifications and the safety-related function of the expendable or consumable item.

## 5.8 Development of the QA Program

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

<b>SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION</b>  <b>OPERATIONS QUALITY ASSURANCE PLAN</b>  <b>PROGRAM DESCRIPTION</b>	NUMBER	REV. NO.
	Chapter 2.0	7
	PAGE 6 OF 14	
	EFFECTIVE DATE 12-20-91	

## 5.9 QA Program Documents

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

### 5.9.2 Procedures

5.9.2.1 Procedures shall be established to implement and control activities covered by the OQAP other operating, licensing and code requirements. When more than one department or organization is involved, these procedures provide for the integration of responsibilities and activities to ensure continuity of activity between departments or organizations.

5.9.2.2 Specific departments or organizations shall be designated for the preparation and approval of each procedure. Procedures which contain requirements for more than one department or organization require a designated procedure coordinator who is responsible for initiating review with affected departments or organizations and resolution of comments. Procedures shall be approved by the management of the issuing department.

<b>SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION</b>  OPERATIONS QUALITY ASSURANCE PLAN  PROGRAM DESCRIPTION	NUMBER Chapter 2.0	REV. NO. 7
	PAGE 7 OF 14	
	EFFECTIVE DATE 12-20-91	

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

QA-007

#### 5.10 Personnel Indoctrination and Training

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

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

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

<b>SOUTH TENDON PROJECT ELECTRIC GENERATING STATION</b>  <b>OPERATIONS QUALITY ASSURANCE PLAN</b>  <b>PROGRAM DESCRIPTION</b>	NUMBER	REV. NO.
	Chapter 2.0	7
	PAGE 8 OF 14	
	EFFECTIVE DATE 12-20-91	

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

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

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

#### 5.11 Policies and Goals

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

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



<b>SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION</b>  OPERATIONS QUALITY ASSURANCE PLAN  PROGRAM DESCRIPTION	NUMBER	REV. NO.
	Chapter 2.0	7
	PAGE 9 OF 14	
	EFFECTIVE DATE	12-20-91

## 5.12 Control of Activities

- 5.12.1 The OQAP requires NA review and/or approval of procedures which control selected activities. These procedures shall require the use of the proper equipment, completion of prerequisites for starting an activity, and suitable environment for performing the activity. Procedures will comply with the appropriate standards.
- 5.12.2 STPEGS personnel attend planning, scheduling, and status meetings affecting quality-related activities as necessary to assure adequate QA coverage and program application exists.

## 5.13 Management Review

- 5.13.1 The implementation of the QA Program requirements shall be verified through independent and integral control activities. The QA Organization, under the General Manager, NA, shall conduct audits, surveillances, and inspections of the operating plant and of the interfacing organizations' quality-related activities.
- 5.13.2 The results of the audits, surveillances, and inspection activities are presented in a periodic report to the Group Vice President, Nuclear.
- 5.13.3 Assessments of HL&P's implementation of the Operations QA Program are conducted under the cognizance of the Nuclear Safety Review Board and results are transmitted to the Group Vice President, Nuclear for his review and/or action.

UTH TEXAS PROJECT ELECTRIC GENERATING STATION  OPERATIONS QUALITY ASSURANCE PLAN  PROGRAM DESCRIPTION	NUMBER	REV. NO.
	Chapter 2.0	7
	PAGE 10 OF 14	
	EFFECTIVE DATE	12-20-91

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

#### 5.14 Operations Quality Assurance Plan Changes

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

#### 5.15 Computer Code Programs

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

### 6.0 DOCUMENTATION

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

6.2 Operations Quality Assurance Plan (OQAP)

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION  OPERATIONS QUALITY ASSURANCE PLAN  PROGRAM DESCRIPTION	NUMBER	REV. NO.
	Chapter 2.0	7
	PAGE 11 OF 14	
	EFFECTIVE DATE 12-20-91	

7.0 ATTACHMENTS

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

QA-007

<b>SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION</b>  <b>OPERATIONS QUALITY ASSURANCE PLAN</b>  <b>PROGRAM DESCRIPTION</b>	NUMBER	REV. NO.
	Chapter 2.0	7
	PAGE 12 OF 14	
	EFFECTIVE DATE 12-20-91	

## ATTACHMENT I

OPERATIONS QUALITY ASSURANCE PLAN CHAPTERS 10 CFR 50 APPENDIX B CRITERIA

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



SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION  OPERATIONS QUALITY ASSURANCE PLAN  PROGRAM DESCRIPTION	NUMBER	REV. NO.
	Chapter 2.0	7
	PAGE 13 OF 14	
	EFFECTIVE DATE	12-20-91

## ATTACHMENT I

OPERATIONS QUALITY ASSURANCE PLAN CHAPTERS 10 CFR 50 APPENDIX B CRITERIA

17.0 ASME Section XI Repairs and Replacements \*

18.0 ASME Section XI Examination and Testing \*

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

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION  OPERATIONS QUALITY ASSURANCE PLAN  PROGRAM DESCRIPTION	NUMBER	REV. NO.
	Chapter 2.0	7
	PAGE 14 OF 14	
	EFFECTIVE DATE 12-20-91	

ATTACHMENT 11

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Qd-007