UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of HOUSTON LIGHTING & POWER COMPANY, ET. AL. (South Texas Project, Unit 1 and 2)	Docket Nos. 50-498 OL 50-499 OL

AFFIDAVIT OF JAMES E. GEIGER ON ISSUE F

1. My name is James E. Geiger and I am Manager, Nuclear Assurance, for Houston Lighting & Power Company ("HL&P"). I testified previously in this proceeding on June 16, 1982, as part of a panel with Mr. Donald Krisha and Mr. Clyde Hawn (Geiger et al., ff. Tr. 10580). My educational background and professional qualifications are described in my previous testimony. Since I testified in 1982, my title has changed to Manager, Nuclear Assurance. In that position, I am responsible for, among other things, the development of the Quality Assurance program for operation of STP. My assignment as Manager, Nuclear Assurance, permits me to focus exclusively on STP (and frees me from responsibility for HL&P's non-nuclear QA programs). The purpose of my Affidavit is to address Issue F, which states:

> Will HL&P's Quality Assurance Program for Operation of the STP meet the requirements of 10 C.F.R. Part 50, Appendix B?

2. The QA program for operation of STP is described in Section 17.2 of the FSAR, a copy of which, as amended through Amendment 52, is included as Attachment A to this Affidavit. Attachment B identifies the changes to Section 17.2 which are currently planned and will be incorporated in a future amendment to the FSAR. The HL&P corporate QA policies, commitments, and general criteria and requirements for quality related activities during operation are contained in HL&P's Operations QA Plan (OQAP). The OQAP is, in turn, implemented by procedures that provide detailed instructions to employees performing quality related work. The current version of the OQAP has been in effect since May 1984 with only three minor revisions since that time.

3. The QA organization planned for operation of STP will be comprised of an Operations QA Division and a Technical Services Division and is depicted in Attachment C to this Affidavit. The QA organization and the Vice President, Nuclear Operations, both report to the Group Vice President, Nuclear. Thus, the Operations QA organization reports to a Management level above that which is directly responsible for power production, and is not a part of Operations.

4. The Operations QA Division is headed by an Operations QA Manager, Mr. John Green. Mr. Green has 22 years of nuclear QA/QC experience with General Dynamics Electric Boat Division, Bechtel Corporation, Gilbert Associates, Inc., Pennsylvania Power & Light Company (PP&L), and HL&P. At PP&L, he was responsible for the Operations QA activities for the

Susquehanna Nuclear Project. His certifications include Lead Auditor (ANSI N45.2.23), Level III Surveillance, and Level II NDE for various non-destructive testing techniques. He is a registered Professional Engineer in California.

5. The Operations QA Division consists of the Quality Systems, Quality Engineering, and Quality Control groups. The Division is dedicated to day-to-day verification of startup, operation, maintenance, and other activities directly associated with operation of the nuclear units. Verification of other activities, such as design, procurement, and modification activities conducted during outages, are the responsibility of the Technical Services Division which is described in paragraphs 7-9 below. The purpose of this organizational structure is to permit the Operations QA Division to focus exclusively on day-to-day verification of operational activities and to free it from responsibility for monitoring activities not directly associated with operation of the nuclear units.

6. The Quality Systems group is responsible for trending all deficiency documents, tracking deficiencies through verification of completion of corrective action, developing and controlling the OQAP and QA procedures, maintaining personnel training and certification records, and summarizing and reporting results of activities of the QA organization to executive management. The Quality Engineering group reviews quality-related documents and procedures, conducts audits and surveillance of quality-related site activities, and reviews plant modifications performed by the Nuclear Plant Operations Department (NPOD). The Quality Control group

develops inspection procedures, conducts inspections of purchased material, Startup, Operations, and Maintenance activities, and reviews quality-related procedures and work documents for appropriate hold and verification points.

7. The Technical Services Division is responsible for QA planning and monitoring for design and procurement activities for operation and installation of major modifications. The Technical Services Manager will possess a B.S. in science or engineering (or comparable education and experience), have at least 5 years of management or supervisory experience with nuclear facilities, and at least 10 years QA experience. At the present time, Technical Services consists of a Vendor Evaluation/ Surveillance group -- which performs vendor related activities -- and the Design/Procurement group -- which reviews design and procurement documents and performs surveillance of design and procurement activities conducted by HL&P or its contractors.

8. Prior to fuel load of Unit 1, the Technical Services Division will include Design/Procurement, Vendor Control, Quality Engineering, and Quality Control functions.

9. The Design/Procurement group will continue to perform its current functions but its scope will increase as the responsibility for design and procurement is transferred to HL&P. The Vendor Control group will review vendor quality programs and perform audits and surveillance of vendor activities. The scope of the Vendor Control group's effort will

increase as the responsibility for design and procurement is transferred to HL&P. The Quality Engineering (QE) group will assure that audits, surveillance, and document reviews related to outage and modification activities conducted by contractors are performed. The Quality Control (QC) group will manage the inspection effort related to such activities. Since no such activities are presently being conducted, the QE and QC groups will be created prior to fuel load of Unit 1. As construction activities continue, personnel within the present Project QA organization (currently performing construction-related QA functions) will be assigned to staff these groups as well. Upon completion of Unit 2, the Project QA organization will be phased out.

10. The current professional staffing of the Operations QA organization is 45 persons, including 35 in the Operations QA Division and 10 in the Technical Services Division. When fully staffed for two unit operation, there will be 44 persons in the Operations QA Division and 16 persons in Technical Services. Almost all managers and supervisors have been designated and most of the remaining positions to be filled are staff level positions.

11. Through their involvement in the activities of the Startup and Nuclear Plant Operations Departments (NPOD), the Operations QA organization is acquiring considerable experience and familiarity with plant equipment, personnel, requirements, and procedures. That experience has been enhanced through the audit, surveillance, inspection, and document

review related to activities that are currently underway. These activities will increase as the Project progresses toward operation. In particular, QA personnel have been engaged in auditing and surveillance of Startup activities, witnessing of tests, and review of Startup procedures and test results. QA personnel have also been engaged in auditing and surveillance of activities being performed by the NPOD and by other departments that will support plant operation, as well as review of procedures to be used during operation.

12. All employees associated with STP whose activities affect quality currently receive QA indoctrination training presented by the Nuclear Training Department. The QA indoctrination training covers the purpose, policies, and principles of the QA program and the roles and responsibilities of individuls performing activities which affect quality. Since training for operation of STP must cover other non-QA-related topics (such as security, radiation protection, and emergency planning), the General Employee Training (GET) Program will replace the existing QA indoctrination training. The GET Program (which is also presented by the Nuclear Training Department) covers the purposes, policies, and principles of the QA Program for operation of STP and the roles and responsibilities of individuals performing activities which affect quality. In addition, individuals with quality-related responsibilities are required to be familiar with applicable procedures and other quality-related documents. QA personnel attend training on applicable QA procedures and are required to be familiar with applicable QA program documents, industry codes and standards, and regulatory requirements.

13. Management level personnel in the Operations QA organization must have QA experience and preferably a degree in engineering or science and must be knowledgeable in nuclear power operations and maintenance. Persons performing inspections will be qualified and certified based on education and experience in accordance with Regulatory Guide (Reg. Guide) 1.58 (1980), ANSI N45.2.6-1978, and as applicable, SNT-TC-1A-1980 (for NDE personnel). Persons performing audits will be qualified and certified based on education, work experience, training, on-the-job performance, and audit participation, in accordance with Reg. Guide 1.146 (1980), and ANSI N45.2.23-1978. Other persons with training or experience commensurate with the scope, complexity, or special nature of the activities to be audited may also assist in audits. Although there is no NRC requirement or industry standard governing qualification or certification of persons performing surveillance, HL&P requires that such persons possess education and experience levels comparable to the requirements of ANSI N45.2.6 for inspection personnel. Certification programs require annual evaluation of personnel performing activities requiring certification to ensure that such personnel remain qualified to perform such activities. Retraining and requalification, as appropriate, are provided.

14. In CCANP's Answers to Applicant's Eighth Set of Interrogatories and Requests for Production of Documents (pp. 2-3), CCANP states that the basis for its contention that HL&P will not implement the QA program for operation of STP in accordance with 10 C.F.R. Part 50, Appendix B, is an anonymous telephone call in which it received allegations regarding an HL&P investigation into the use and sale of illegal drugs at the Project

and HL&P efforts to "protect the Operations Group personnel" who were allegedly implicated in such drug use. Appendix B to 10 C.F.R. Part 50, and the Reg. Guides, Standard Review Plan provisions and ANSI standards which contain requirements and criteria for nuclear QA programs do not mention drug use or require programs relating to drug use. Neither do they provide guidance on disciplinary actions to be taken with respect to employees found to be involved in the use or sale of illegal drugs. Therefore, while HL&P has implemented various programs relating to drug use which will continue to be in effect during operation of STP (e.g., HL&P's Fitness for Duty Program and its Drug and Alcohol Abuse Screening Program), those programs are not required by Appendix B nor administered or monitored by the Nuclear Assurance Department. In my more than 27 years of experience in Quality Assurance, including 10 in the nuclear industry, I have never encountered an Appendix B Quality Assurance program that contained provisions regarding the control of the use of illegal drugs by employees.

15. Section 17.2 of the FSAR (Attachment A), as modified by Attachment B, describes the QA program for operation of STP including the manner in which the program will meet each of the 18 criteria of Appendix B. Attachment C depicts the organization of the Nuclear Assurance Department as it will be revised prior to fuel load, as described in paragraphs 5-9 above. I have reviewed Attachments A, B, and C; and, taken together, they are true and correct to the best of my knowledge and belief.

16. In my professional judgment, the QA program for operation of STP meets the requirements of 10 C.F.R., Part 50, Appendix B.

County of Matagorda | ss.
State of Texas |

I, James E. Geiger, being duly sworn, certify that I am familiar with the statements contained herein and they are true and correct to the best of my knowledge and belief.

James E Geiger

Subscribed and sworn to before me this 10th day of March, 1986.

Kathy Graham

My Commission Expires: April 4, 1987

NOTARY PUBLIC * STATE OF TEXAS *

17.2 QUALITY ASSURANCE DURING THE OPERATIONS PHASE

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

HL&P's Nuclear Quality Assurance Program requires that HL&P, its prime contractors, subcontractors, and vendors comply with the criteria established by 10CFR Part 50, Section 50.55a; 10CFR Part 50, Appendix A, General Design Criterion 1; and 10CFR Part 50, Appendix B. It is the intent of HL&P to comply, as defined herein, with ANSI N45.2 and the applicable daughter standards, ANSI N18.7, and implementing Regulatory Guides as defined herein and FSAR Table 3.12-1.

The HL&P QA Program is defined by the Operations QA Plan. The Operations QA Plan is further augmented by implementing procedures to provide HL&P with the assurance that its quality commitments are met. The QA program described by the Project QA Plan for design and construction activities will be implemented until these activities are complete or the Operations QA program is effectively assuring the quality of these activities. 42

17.2.1 Organization

17.2.1.1 Authorities and Duties.

17.2.1.1.1 Nuclear Assurance (NA) Department: The organization primarily responsible for establishing and executing the HL&P QA Program, which includes QA for fire protection, is HL&P QA. 48 42 48

The QA organization during operation is shown in Figure 17.2-1. The size of the QA organization, including the inspection staff, is based on the anticipated QA/QC involvement in operation and maintenance activities and by a survey of site QA staffs of other utilities with nuclear power plants in operation. 42

Individuals responsible for performing the QA functions, assuring the QA program is established and executed, and verifying that an activity has been correctly performed are as follows:

Manager, Nuclear Assurance 48

The Manager, NA, is responsible for the development of the QA Program. The Manager, NA, has the authority to identify, initiate, recommend, or provide solutions to quality related problems and verify the implementation and effectiveness of the solutions. This position has the independence to conduct QA/QC activities without undue pressure of cost or schedule. The Manager, NA, has the authority to "stop work" for cause in engineering, design, procurement, fabrication, modification, preoperational testing, and operations phases of the nuclear plant. 42 48 42

The Manager, NA, reports to the Group Vice President, Nuclear, who has overall responsibility for Quality Assurance at STPEGS. The position of Manager, NA, is on the same or higher organization level as the highest line manager responsible for performing activities affecting quality as shown in Figure 17.2-2. 48 42

The Manager, NA, reviews and approves the Operations QA Plan, and changes thereto. Final approval is provided by the Group Vice President, Nuclear. 48

Safeteam Manager

The Manager of the Safeteam department is responsible for the investigation of employee concerns.

The Safeteam Manager reports to and receives direction from the Manager, NA. 42

Operations Quality Assurance (QA) Manager

The Operations QA Manager is responsible for assuring that an adequate QA program is developed and implemented for safety-related systems, components, structures and activities at STPEGS. These responsibilities commence upon completion of construction of the equipment or system and turnover to the Startup group (Release for Test (RFT)). 48

The Operations QA Manager has the independence to conduct QA/QC activities without undue pressure of cost or schedule and is free from non-QA duties to assure that the Operations QA program is being implemented. 42

The Operations QA Manager reports to and receives technical direction from the Manager, NA.

Operations Quality Assurance (QA) General Supervisor 48

The Operations QA General Supervisor is responsible for verifying compliance with all quality-related manuals and procedures which are implemented for the STPEGS through planned and systematic audits and surveillances. These activities are entirely related to QA and free from non-QA duties. 42

The Operations QA General Supervisor reports to and receives technical and administrative direction from the Operations QA Manager. 48 42

Operations Quality Control (QC) General Supervisor 48

The Operations QC General Supervisor is responsible for coordinating inspection of selected fabrication, construction, modification, maintenance, testing and material receiving activities, ensuring proper nonconformance identification and assuring that the personnel performing inspections are properly certified. These activities are entirely related to QA and free from non-QA activities. 42

The Operations QC General Supervisor reports to and receives technical and administrative direction from the Operations QA Manager. 48

Technical Services General Supervisor

The Technical Services General Supervisors is responsible for performing vendor surveillance, vendor audits, and related activities as requested by the Operations QA Manager. 48 42

The Technical Services General Supervisor reports to and receives technical and administrative direction from the Manager, NA.

Project QA Supervisor Design and Procurement

The Project QA Supervisor Design and Procurement is responsible for the QA activities associated with Design and Procurement and reports to the Operations QA Manager for those functions performed under the auspices of Operation QA Plan. 48

17.2.1.1.2 Nuclear Plant Operations Department: The Nuclear Plant Operations Department is responsible for all aspects of the nuclear plant post-fuel load testing, operation, and maintenance including Radiation Protection and Fire Protection Programs. 42

Vice President, Nuclear Plant Operations

The Vice President, Nuclear Plant Operations is responsible for staffing STPEGS with qualified personnel and acquiring and coordinating the assistance of internal and external organizations for the testing, startup, operation, and maintenance of STPEGS.

The Vice President, Nuclear Plant Operations reports to the Group Vice President, Nuclear. 46

Plant Manager

The Plant Manager has prime responsibility for the safe operation of the STPEGS. The plant staff, under the direction of the Plant Manager, develops detailed procedures and instructions for testing, operation, and maintenance. The Plant Manager is responsible for emergency preparedness and radiological monitoring of the STPEGS. 42

In addition, disputes over corrective action taken in response to conditions adverse to quality are normally resolved by the Plant Manager. Should this resolution not be satisfactory, the disputing parties may take the matter to higher management for resolution.

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

17.2.1.1.3 Nuclear Engineering and Construction Departments: The Nuclear Engineering and Construction Departments are responsible for the design engineering, design control, construction, prerequisite testing, preoperational testing, records management, and nuclear fuel management. 46 42

Nuclear Engineering and Construction Departments

The Group Vice President, Nuclear is responsible for design engineering, construction, modification, and design reviews for STPEGS. In addition, the Group Vice President, Nuclear is responsible for plant licensing activities, nuclear fuel design, fuel acquisition, and fuel management and for providing a records management system.

Manager, Engineering

The Manager, Engineering, is responsible for coordinating design engineering, construction, and modification tasks, and design reviews for STP.

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

17.2.1.1.4 Purchasing and Services Department: The Purchasing and Services Department provides for the procurement and storage of equipment, material and services for STPEGS.

Vice President, Purchasing and Services

The Vice President, Purchasing and Services is responsible for the procurement of equipment, material, and services including the coordination of procurement document review, and receipt, handling, and storage of equipment and materials at STPEGS.

The Vice President, Purchasing and Services reports to the Group Vice President, Administrative.

17.2.1.1.5 Security Division: The Security Division is responsible for the development and coordination of security practices and procedures for the company, and advising and assisting heads of company facilities in the establishment and maintenance of physical security at STPEGS.

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Director of Security

The Director of Security is responsible for the development of the security program, for providing security services, and for administration of the Site Access Authorization Program.

The Director of Security reports to the Group Vice President, Administrative.

17.2.1.1.6 Personnel Relations Division: The Personnel Relations Division screens HL&P employees in conjunction with the Site Access Authorization Program.

Manager, Personnel Relations

The Manager, Personnel Relations is responsible for supporting the Site Access Authorization Program in the screening of HL&P employees.

The Manager, Personnel Relations reports to the Vice President, Human Resources.

17.2.1.2 Establishing Policies and Goals. QA policies and goals for HL&P are defined in the Operations QA plan. The Group Vice President, Nuclear, who has overall responsibility for Quality Assurance, will review and approve the Operations QA Plan and all revisions. 42 46 42

The Manager, NA, is responsible for the development of the QA Program. The minimum requirements established for this position are: 48

1. A bachelor degree in science or engineering, or an equivalent combination of education and experience.

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

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

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

5. Management experience and familiarity with HL&P corporate organizations. 42

The departmental procedures and revisions which control the quality-related work performed by HL&P organizations described in Section 17.2.1.1 will be reviewed by the Operations QA Manager or his designee.

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

1. Identify quality problems.

2. Initiate, recommend, or provide solutions.

3. Verify implementation of solutions.

The reporting arrangement, as illustrated on Figure 17.2-2, is such that personnel responsible for verifying compliance with quality requirements do not have direct responsibility for the performance of the work being verified and report to the Operations QA Manager.

The Manager, NA, has the authority to "stop work" for cause in engineering, design, procurement, fabrication, modification, testing and operation activities. This authority in QA matters has been granted by the Group Vice President, Nuclear. 48 42 46

The Manager, NA, provides technical and administrative direction to the Operations QA Manager and the Technical Services General Supervisor. 48

The Operations QA Manager provides technical and administrative direction to the Operations QA General Supervisor and the Operations QC General Supervisor. 42 48

As further described in Section 17.2.4, the QA program provides for a review of procurement documents, including contracts and subcontracts. This review ensures that the procurement documents include a requirement that suppliers of safety-related materials or services have a quality program commensurate with the scope of the purchase order and when required, submit a copy of their QA program for review and approval by HL&P. The submitted QA manual or program description is reviewed for compliance with HL&P's QA program requirements; one of these requirements is that the contractor or subcontractor's QA group has sufficient organizational freedom to identify and follow up on problems.

17.2.1.4 Delegation of QA Functions. The entire HL&P QA program for operations will be established by HL&P personnel. During normal operations, the QA program will be executed by HL&P personnel who may be assisted by subcontract personnel. During startup, refueling, maintenance, and inservice inspection, first-level quality control inspection and nondestructive examination (NDE) activities may be subcontracted. However, HL&P will retain responsibility for the total QA program, and HL&P QA personnel will perform audits and surveillance(s) of subcontracted QA activities.

When first level quality control inspection and nondestructive examination are performed by HL&P personnel, the personnel shall be qualified and certified in accordance with applicable codes, standards, procedures, and other regulations. Monitoring and surveillance of the quality control and nondestructive examination activities shall be performed by Operations QA personnel.

17.2.2 Quality Assurance Program

17.2.2.1 QA Program. HL&P has established the Operations QA Program for the operations phase of the South Texas Project Electric Generating Station (STPEGS), which includes prerequisite, preoperational, and startup testing, operation, maintenance, refueling, inservice inspection, and modification. The HL&P QA Program for the operations phase complies with 10CFR Part 50, Section 50.55a; 10CFR Part 50, Appendix A, General Design Criterion 1; 10CFR Part 50, Appendix B; and, the regulatory guides and standards listed in Table 3.12-1. Appendix B criteria are satisfied as described in Section 17.2. 42

Section 17.2.1 identifies the organizations responsible for implementing the QA program. Each criteria in Chapter 17.2 further defines the organizational responsibilities for implementing specific criteria requirements.

17.2.2.2 Identification of Safety-Related Items and Services. The HL&P 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. These safety-related structures, systems, and components controlled by the QA program are listed in Section 3.2, along with their associated fire protection systems.

The fire protection program is part of the overall HL&P 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 QA Program under 10CFR50, Appendix B.

In addition, 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.

17.2.2.3 Development of the QA Program. The Operations QA Program shall be fully implemented 90 days prior to initial fuel loading. The QA Program shall be implemented throughout the operating life of the STPEGS.

Activities, prior to full QA Program implementation, shall be controlled by procedures developed and implemented prior to the performance of the activity. These procedures shall be reviewed, approved, and controlled in accordance with Sections 17.2.5 and 17.2.6.

17.2.2.4 QA Program Documents. The QA Program shall be implemented with plans, procedures, and instructions to ensure effective control of all quality activities. The relationship of various manuals is shown on Figure 17.2-3.

Figure 17.2-3 lists the typical procedures that will be developed to implement the QA Program. Provisions for procedure consolidation, separation, deletions, additions, or minor program changes do not permit including a complete listing of implementing procedures. 42

17.2.2.5 Policies and Goals. It is the policy of HL&P, acting as a licensee and Project Manager for the other owners of the South Texas Project Electric Generating Station (STPEGS), to assure that the design, procurement, construction, testing, and operation of the STPEGS are in conformance with specifications, procedures, codes, and NRC regulations. It is the responsibility of each organization supporting the STPEGS to ensure that the requirements stated in this quality assurance program are incorporated into procedures. Adherence to those procedures is mandatory for all HL&P organizations and for all contractors or vendors providing items or services covered by the QA program.

The Operations QA Plan identifies activities and establishes requirements for procedures which identify, initiate, 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, the Manager, Nuclear Assurance, presents the problem to the Group Vice President, Nuclear, for resolution. 48 42

17.2.2.6 Personnel Indoctrination and Training. General indoctrination and training programs shall be provided for the general office and plant site personnel to assure that they are knowledgeable regarding quality programs and requirements. The requirements for training HL&P personnel are described in Section 13.2 The training of plant operating personnel is the responsibility 49 Q260.56N 42

of the Nuclear Training Department. Records of training shall be maintained to demonstrate compliance with the qualification 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 described in Sections 17.2.9, 17.2.10, 17.2.11 and 17.2.18 to address audit activities.

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

Training will be conducted in a time frame adequate to allow personnel to prepare for their job responsibilities and prior to commencing safety-related work. Proficiency of personnel shall be maintained by retraining, re-examining and/or recertifying in accordance with requirements and procedures which control initial training, examining and certifying. 42

In addition to general employee training and indoctrination described above, departmental and Training Department 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:

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

2. Date and content of the training sessions, attendees and results where appropriate.

17.2.2.7 Control of Activities. The Operations QA Plan requires the QA review and/or approval of procedures which control safety-related activities. The 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 prescribed for such safety-related activities.

QA personnel will attend planning, scheduling and status meetings affecting safety-related activities as necessary to assure adequate QA coverage and program application exists.

17.2.2.8 Management Review. The implementation of the QA program requirements shall be verified through independent and integral control activities. The QA Organization under the Manager, NA, shall conduct audits, surveillances, and inspections of the operating plant and of the interfacing organizations' quality-related activities. 48 42

The results of the audits, surveillance, and inspection activities shall be presented in a periodic report to the Group Vice President, Nuclear. The 46

Group Vice President, Nuclear, assures that an objective program assessment of the STPEGS QA Program is being performed. 42

Management assessments shall be conducted to assess HL&P's implementation of the Operations QA Program. These assessments will be conducted by organizations independent of the activities performed. The Group Vice President, Nuclear, shall define the scope of the assessment and determine the schedule. The results of these assessments are transmitted to the Group Vice President, Nuclear. 46

HL&P may use the services of architect-engineer firms, NSSS suppliers, fuel fabricators, constructors, and others which provide or augment HL&P's efforts during the operational phase. These organizations shall be 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 prior to initiation of activities affected by the program. 42

17.2.2.9 System Turnover. Construction activities will be controlled by the STPEGS QA Program Description. The Construction Manager has been assigned the responsibility for developing procedures for the control of system turnover. These procedures, the HL&P Startup Manual, and the Operations QA Plan shall control system release for test, phaseout of construction activities and turnover of plant systems for operations.

17.2.2.10 FSAR Changes. HL&P is committed to maintaining the FSAR as an effective and meaningful document to provide programmatic direction on STPEGS. Changes to the QA program, as described in the FSAR, will be processed in accordance with 10CFR50.54(a). 49 Q260. 50N

When changes are made to the organizational elements only in the FSAR, appropriate notification will be made to the NRC within 30 days of implementation.

17.2.2.11 Computer Code Programs. The development, control, and use of computer code programs which affect safety-related items will be conducted in accordance with the Operations QA Plan. Prior to use of a computer code program in a safety-related activity, the appropriateness of the program to the activity shall be verified. In additional, all such programs shall be appropriately certified for use.

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17.2.3 Design Control

17.2.3.1 Design Control Measures. Procedures shall be established to control the preparation and review of design documents. These procedures shall ensure that design activities provide the correct translation of regulatory requirements and design bases into specifications, drawings, written procedures, instructions, and other design documents.

Design requirements and changes thereto shall be identified, documented, reviewed, and approved to assure incorporation of appropriate quality standards in design documents. Design requirements and quality standards shall be described to an appropriate level of detail in design criteria. Any exceptions

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to quality standards will be documented. Design criteria for modification to structures, systems, and components shall include the design bases described in the FSAR. Design criteria shall be reviewed by QA for seismic and quality group classification, selection of quality standards, and deviations from quality standards for acceptability.

17.2.3.2 Application Review. A review for application suitability of materials, parts, equipment, and processes that are essential to the functions of safety-related structures, systems, and components is done as part of the design document preparation and review process. The procedures which govern the preparation and review of design documents require the use of valid industry standards and specifications in the application suitability review. Review of standard "off the shelf" commercial materials, parts, and equipment for suitability of application with safety-related structures, systems, and components will be conducted prior to selection.

17.2.3.3 Design Process. 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 procedure by appropriately qualified individuals. Results of analyses will be appropriately verified and documented.

Delineation of acceptance criteria for inspections and tests will be specified by procedure. All such acceptance criteria will satisfy the requirements of applicable standards or be approved by appropriately qualified individuals.

17.2.3.4 Design Review and Verification. The design process shall include design verification by qualified persons to assure that the design is adequate and meets specified design input. Design control procedures shall specify requirements for the selection and performance of design verification. Design verification shall be either by design review, alternate calculation, qualification testing, or by a combination of these. The depth of design verification shall be commensurate with the importance of the system or component to plant safety, complexity of the design, and similarity of design to previous designs. 42

If verification method is performed only through qualification testing, the following requirements shall be met:

1. Procedures shall provide criteria that specify when verification should be by test.

2. Prototype, component, or feature testing shall be performed as early as possible prior to installation of plant equipment, or prior to the point when the installation would become irreversible.

3. Verification by test shall be performed under conditions that simulate the most adverse design conditions as determined by analysis.

Procedures shall identify the responsibilities of the verifier, the features to be verified, and the documentation required. Design verification shall be performed by qualified verifiers who are not directly responsible for the design or the design changes. However, in unusual cases the designer's

supervisor may perform the verification if the supervisor is the only technically qualified individual and the need for the supervisor to perform the review is approved and documented in advance by the supervisor's management.

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.

Design analyses shall be sufficiently detailed as to purpose, method, assumptions, design requirements, references, and units to permit an independent review by a technically qualified person. Computer codes shall be verified to be certified for use, and it shall be verified that their intended purpose is specified.

Procedures shall identify that design documents are reviewed by QA to assure that the documents are prepared, reviewed, and approved in accordance with procedures; that design documents describe the extent of documentation required; and that adequate acceptance criteria for inspection and tests are included.

Procedures shall control the action to be initiated to resolve design errors and deficiencies that could adversely affect safety-related structures, systems and components and assure that changes are controlled. The actions taken to prevent recurrence of the error shall be documented.

17.2.3.5 Design Interfaces. The design interfaces between organizations shall be identified and controlled under the Operations QA Plan and procedures which shall address the division of design responsibility among the STPEGS plant staff, Nuclear Engineering and Construction, and contractors. Procedures shall specify the lines of communication and distribution of design information. Procedures shall identify the organizations responsible for design reviews and approval for each design organization. Procedures shall control the release and distribution of design documents to prevent the inadvertent use of superseded design information.

17.2.3.6 Design Changes. Changes to the plant design may be necessary to correct operational deficiencies, incorporate improvements, or to comply with new regulatory requirements. Procedures shall specify requirements for the review and/or approval of design changes by the organizations that reviewed and/or approved the original design. Design control activities may be delegated to others provided they have access to pertinent background and technical information. Design changes, including field changes will be subject to the same design controls that were applied to the original design. Design changes shall be communicated to appropriate plant personnel. Design changes will be checked against as-built drawings prior to closing out the design change process.

17.2.4 Procurement Document Control

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

1. Applicable regulatory, code, and design requirements, including applicable material and component identification requirements, drawings, specifications, standards, inspection and test requirements, special process instructions and handling, preservation, cleaning, storage, packaging and shipping requirements. These requirements shall equal or exceed the original requirements and be sufficient to preclude repetition of defects.

2. Extent that supplier QA program shall comply with 10CFR50, Appendix B, and the QA program requirements of other nationally recognized codes and standards, as applicable.

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 HL&P review or approval.

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

5. Requirements for extending applicable HL&P procurement requirements to lower-tier suppliers and subcontractors, including HL&P's access to facilities and records. 42

6. Requirements for supplier reporting to HL&P nonconformances to procurement document requirements and conditions for their disposition.

7. Requirements for the retention, control, and maintenance of supplier QA records. Supplier-furnished records shall include:

   a. Documentation that identifies the purchased item and the specific procurement requirements (e.g., codes, standards, and specifications) met by the item.

   b. Documentation identifying any procurement requirements that have not been met.

   c. A description of those nonconformances from the procurement requirements dispositioned "accept as is" or "repair."

8. Requirement for the supplier to submit a copy of its QA program description.

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

10. Applicability of 10CFR21, Reporting Requirements.

Review of purchasing documents by QA personnel shall verify that quality requirements are correctly stated, verifiable, and controllable; that acceptance/rejection criteria are included; and that the documents have been prepared, reviewed, and approved in accordance with HL&P's QA program requirements.

17.2.4.2 Procurement Document Preparation and Review. Responsibility for procurement is a joint effort of all the departments within the Nuclear Group. The department requesting the material or source provides technical content. QA reviews the request for quality requirements and the Purchasing and Services Department is responsible for commercial provisions.

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

1. Purchase Requisitions

Purchase Requisition forms shall be used to initiate the procurement of safety-related materials, parts, components and services. Procurement may be initiated by any Nuclear Group Department or Stores Department personnel.

Purchase Requisitions shall include material and component identification requirements, drawings, specifications, inspection and test requirements, and special process instructions as appropriate. Commercial items shall rely on proven design and utilize verification methods by the purchaser in lieu of supplier controls. 42

Purchase Requisitions for safety-related materials, parts, components, or services shall be reviewed by the cognizant technical organization and QA personnel to verify that adequate technical and quality requirements, respectively, have been specified. The reviews for technical and quality requirements shall be performed by someone other than the originator of the requisition.

2. Purchase Orders and Contracts

Purchase Orders and Contracts are prepared and issued by the Purchasing and Services Department, and establish for the suppliers the technical and quality requirements which must be met. These documents also establish the commercial conditions for the procurement action.

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 to the cognizant technical organization which approved the original requirements for approval.

3. Change Controls

Additions, modifications, exceptions, and other changes to procurement document quality and technical requirements shall require a review and

approval equivalent to that of the original document. Commercial consideration changes may not require review and concurrence by the originator.

17.2.4.3 Supplier Selection. Suppliers of safety-related items or services shall be required to submit copies of their QA program description, as required by procurement documents defined in Section 17.2.4.1, with their bids. The supplier's QA program description shall be evaluated 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 a capable procurement source is described in Section 17.2.7.

Procurement documents covering safety-related spare or replacement parts shall impose standards consistent with those specified for the original equipment or by a properly reviewed and approved revision. The procurement of spare parts or replacement parts will be subject to the QA program controls in effect at the time of the procurement. 42

17.2.5 Instructions, Procedures, and Drawings

17.2.5.1 Scope. The safety-related activities associated with the operations phase shall be accomplished in accordance with documented instructions, procedures, and/or drawings. These activities include design, procurement, warehousing, construction, installation, maintenance, modification, inspection, testing, operation, and auditing. The Operations QA Plan requires that such safety-related work be performed according to procedures. The Operations QA Manager or Operations QA General Supervisor, as appropriate, will review and concur with procedures and revisions thereto for compliance with the HL&P QA Program, 10CFR50 Appendix B, and applicable federal regulations. The review is documented and the comments on the current procedure revision will be maintained for verification. 48

17.2.5.2 Acceptance Criteria. Documented instructions, procedures, and drawings will include appropriate quantitative and qualitative acceptance criteria for determining that prescribed activities have been satisfactorily accomplished. Such instructions, procedures, and drawings will be reviewed and approved for compliance with requirements appropriate to their safety classification by individuals qualified to do so. 42

17.2.6 Document Control

17.2.6.1 Scope Documents. Scope documents and their revisions which control activities affecting safety-related structures, systems, and components shall be prepared and reviewed by knowledgeable individuals, and approved by authorized personnel prior to release for use in accordance with approved procedures.

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

17.2.6.2 Control of Issuance and Revision. The Operations QA Plan requires procedures to be developed for the issuance of instructions, procedures, and drawings. The controls for issuing documents include:

1. Documents and revisions are sent to persons or locations on a list of controlled copy holders.

2. Controlled document holders acknowledge, in writing, receipt and insertion of documents and revisions thereto.

3. The availability of documents at the point of use prior to commencing an activity.

4. Temporary changes to procedures.

5. Maintaining master lists of the various documents which indicate the latest revisions of instructions, procedures, and drawings.

The documents which are subject to the administrative controls outlined in this section include but are not limited to:

1. Departmental procedures

2. Operations QA Plan and QA procedures

3. Plant procedures

4. Drawings

5. Procurement documents

6. Design documents

7. Modification procedures

8. Manufacturing, inspection, and testing instructions

9. Test procedures

10. Design change requests

11. Nonconformance and Corrective Action Reports

12. FSAR

13. Interdepartmental Procedures.

The Plant Manager is responsible for distribution of controlled documents generated or received on site and for which plant personnel have the preparation and final approval or external interface responsibility. 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.

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Current documents shall be distributed to and used at the location where the prescribed activity is performed. Clearly identified controlled copies of documents shall be used to perform an activity. Uncontrolled copies shall be clearly identified.

17.2.6.3 Groups Responsible for Review and Approval. The managers of the individual departments performing quality-related work for STP are responsible for reviewing and approving their departmental procedures and changes thereto. Departmental procedures and changes thereto are reviewed by the Operations QA Manager or designee prior to issuance for use. 42

The Manager, NA, reviews and approves the Operations QA Plan, and changes thereto. The Group Vice President, Nuclear approves the Operations QA Plan, and changes thereto. The Operations QA Manager approves the plant QA procedures. 48 46

The Plant Manager is responsible for the approval of plant procedures, instructions, and revisions thereto. Safety-related plant procedures are reviewed by the Operations QA manager, or designee, prior to issuance for use.

Safety-related plant procedures shall be reviewed, by an individual knowledgeable in the area affected by the procedure, no less frequently than every two years to determine if changes are necessary or desirable. This review shall be performed by a member of a designated review group as an independent activity that is at least as rigorous as the initial procedure review. A general revision to a procedure constitutes a review. 47

In order to ensure that procedures in current use provide the best possible instructions for performance of the work involved, systematic review of procedures shall be accomplished following an unusual incident, such as an accident, an unexpected transient, operator error resulting in a significant event, or equipment modification to a system.

Maintenance, modification, and inspection procedures shall be reviewed by the QA organization to determine that necessary inspection requirements, methods, and acceptance criteria have been identified and acceptance criteria meet original design criteria.

Changes to documents shall be reviewed and approved by the same department, group, or organization that performed the original review and approval; unless another department, group, or organization is delegated this responsibility. Organizations which review and approve documents shall have access to pertinent information and knowledge of the intent of the original document.

17.2.7 Control of Purchased Material, Equipment, and Services

17.2.7.1 Scope. Materials, equipment, spare or replacement parts, and services procured for SIPECS shall be required to conform to procurement documents as prescribed in Section 17.2.4. Written procedures shall be established to control quality activities associated with the procurement of material, equipment, and services including:

1. The preparation, review, and change control of procurement documents as described in Section 17.2.4.

2. Procurement source evaluation and selection;

3. Bid evaluation and award;

4. Verification activities (surveillance, inspection, and audit) required by the purchaser;

5. Control of nonconformances as described in Section 17.2.15;

6. Corrective action regarding procurement as described in Section 17.2.16;

7. Material, equipment, and service acceptance;

8. Control of QA records;

9. Audits of the procurement program as described in Section 17.2.18.

17.2.7.1.1 Source Evaluation and Selection: Procurement source evaluation and selection involves QA, Engineering, Purchasing and Services, and STPEGS plant personnel. These organizations participate in the qualification evaluation of suppliers in accordance with written procedures. 42

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

1. Experience of users of identical or similar products of the prospective supplier, NRC Licensee Contractor and Vendor Inspection Program (LCVIP) reports, ASME Certificates of Authorization, Coordinating Agency for Supplier Evaluation (CASE) Register listing, HL&P records accumulated in previous procurement actions, and HL&P product operating experience may be used in this evaluation. When an LCVIP letter of confirmation or CASE register is used to establish a supplier's qualification, the documentation will identify the "letter" or "audit" used. Supplier history shall reflect recent capability. Previous favorable quality experience with suppliers may be an adequate basis for judgements attesting to suppliers' capability.

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

3. A source evaluation of the supplier's technical and quality capability as determined by a direct evaluation of facilities and personnel (audit, survey, or surveillance) and QA program implementation.

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

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 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 the required verification activity, documenting the verification method to be performed, the organization responsible for performing the verification, and documenting the verification.

17.2.7.1.2 Monitoring of Suppliers. 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. 42

Vendor surveillance assures conformance to the procurement document requirements by the use of a vendor surveillance plan. A surveillance plan will be developed in accordance with engineering procedures and the surveillance plan will be reviewed by QA. 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.

17.2.7.1.3 Receiving Inspection: Receiving inspection shall be used for acceptance of items to procurement document requirements. However, when other methods (vendor surveillance) are utilized, receiving inspection shall be used to verify that items have not sustained damage due to handling, shipping, or storing.

Operations QA/QC personnel shall perform receiving inspections in accordance with written procedures. On complex or special items, other plant personnel may assist QA/QC personnel in performing receipt inspection. The QA/QC personnel responsible for acceptance inspection shall be qualified in accordance with Section 17.2.10.1.1. Plant personnel assisting in receipt inspection activities shall be qualified in accordance with Section 13.1.3.

Receiving inspection activities shall include:

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 noted on receiving documentation.

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

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.

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. Received items which do not conform to procurement documents are controlled and segregated (if practicable) and processed in accordance with Section 17.2.15.

Acceptance by post-installation test may be utilized following one of the preceding verification methods. Post-installation testing may be used for acceptance verification when it is difficult to verify item quality characteristics, the item requires an integrated system checkout or test, or the item cannot demonstrate its ability to perform when not in use. Engineering specifications shall be used for developing post-installation test instruction requirements and acceptance documentation. Post-installation testing is the responsibility of the Plant Manager and is witnessed by QA/QC personnel at specified QA hold points. 42

17.2.7.1.4 Acceptance of Procured Items and Service: Acceptance of items and services shall be based on one or more of the following:

1. Written certifications

2. Supplier audit or surveillance

3. Source inspection

4. Receiving inspection

5. Post-installation test

Documentary 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.

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

17.2.7.2 Audits of Suppliers. The HL&P QA audit program, discussed in Section 17.2.18, provides for periodic scheduled audits of suppliers, contractors, subcontractors, and others performing safety-related work. The audit schedule is prepared and updated by QA. Frequency of these audits is based on the safety, complexity, and quality requirements of the item or service being furnished.

17.2.8 Identification and Control of Materials, Parts, and Components

17.2.8.1 Identification Requirements. The design control documents, as controlled by Section 17.2.3, require that specifications and drawings include appropriate identification requirements for materials, parts, and components. Receipt inspection, as discussed in 17.2.7, shall verify that the item identification complies with specification or drawing requirements. The verification will ensure that material and item identification can be traced to the appropriate documentation, such as specifications, drawings, purchase orders, manufacturing and inspection documents, NCRs, and physical or chemical test reports. The receiving inspection procedure shall require that the method and location of the identification does not affect the function or quality of the item being identified. 42

17.2.8.2 Maintenance of Identification. Upon completion of receiving inspection, materials, parts, and components are turned over to the Stores Department for control and storage. The Stores Department shall develop procedures for the control, storage, and issuance of material, parts and components.

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 as being correct prior to release for fabrication, erection, installation and/or use of the item.

17.2.9 Control of Special Processes

17.2.9.1 Special Processes. Special processes are those special manufacturing processes, inspections, tests, and other processes which require the qualification of the procedures, technique, and personnel to assure the quality of the process. These special processes include, but are not limited to:

1. Welding

2. Heat Treating

3. Nondestructive Testing (NDT)

4. Chemical Cleaning

5. Protective Coating

Special processes are performed under controlled conditions by qualified personnel using procedures qualified and approved in accordance with applicable codes, standards, or other requirements. For special processes not covered by existing codes or standards, the specific equipment, personnel qualification, and procedure qualification requirements are defined prior to application of the special process.

17.2.9.2 Special Process Qualification. Procedures shall be established for the qualification of special processes, equipment, and personnel. These procedures shall define the organizational responsibilities for the qualification process. The Nuclear Plant Operations or Nuclear Engineering and Construction Departments shall qualify HL&P special process procedures, equipment, and personnel. QA shall concur with the qualification of special process procedures, equipment, and personnel. 42

17.2.9.3 Control of Outside Contractors. Qualified outside organizations may be employed to perform special processes and shall be required to conform to the requirements described in this section. Special process procedures submitted by an outside organization in accordance with procurement document requirements shall receive a technical review by the responsible engineering organization and a quality review by QA personnel.

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

17.2.9.5 Qualification of NDT Personnel. Nondestructive test personnel shall be qualified in accordance with procedures established per the requirements of the American Society for Nondestructive Testing Standard SNT-TC-1A 1980 and ASME B&PV Code Section XI as applicable.

17.2.10 Inspection

17.2.10.1 Inspection Program. A program for the inspection of safety-related activities at STPEGS shall be established to verify conformance with applicable documented instructions, procedures, drawings, and specifications. 48

17.2.10.1.1 Qualification of Inspectors. QC personnel performing inspections shall be qualified and certified in accordance with procedures which meet the requirements of RG 1.58 and as applicable SNT-TC-1A, 1980 42

edition. Inspections and process monitoring which serve an inspection function shall be performed by personnel qualified to perform assigned inspection tasks and who are other than the individuals who performed or directly supervised the activity and do not report to the same immediate supervisor.

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 shall be met:

1. The quality of the work can be demonstrated through a functional test when the activity involves breaching a pressure retaining item. 42

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

17.2.10.1.2 Inspection Process: The inspection program shall be conducted in accordance with approved procedures. Inspection procedures, instructions, or checklists shall provide for the following: 48

1. Identification of characteristics and activities to be inspected;

2 Qualification requirements for the individuals performing the inspection;

3. Acceptance and rejection criteria;

4. A description of the method of inspection;

5. Verification of completion and certification of the inspection, and a record of the results of the inspection operations;

6. Identification of required procedures, drawings, specifications, and revisions; 42

7. Specifying the necessary measuring and test equipment including accuracy requirements and calibration due dates if applicable;

8. Review and evaluation of the inspection results.

Inspection instructions, procedures, and supporting documents shall be provided to inspection personnel for use prior to performing inspection activities. Inspection results shall be documented and procedures shall prescribe the review and approval authority of inspection results.

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

17.2.10.1.4 Supporting Inspections: Both inspections and process monitoring shall be used when control of the activity is inadequate without both. Need for such monitoring shall be determined prior to initiation of the activity, if possible, or may be stipulated later if circumstances warrant. 42

17.2.10.2 Mandatory Inspections. Mandatory inspection hold points are established by the organization performing the work, or operations QA personnel. Witnessing or inspecting of hold points by QC shall be required before work can proceed. For onsite work, plant procedures and work instructions shall be reviewed by QA personnel, for concurrence with the established mandatory hold and notification points. Hold points for work performed in vendor facilities are established by vendor surveillance plans, as described in Section 17.2.7. 48

17.2.10.3 Acceptance. Procedures shall be established for processing inspection data, evaluation of inspection data and final acceptance of inspection data. The qualified inspector performing the inspection is responsible for the immediate evaluation and acceptability of inspection results. The QA/QC Supervisor or designee is responsible for reviewing and evaluating inspection results to assure errors are not made in the recording of data, computations, drawings or specification interpretations. 42

17.2.11 Test Control

17.2.11.1 Test Program. A test program shall be developed to demonstrate that safety-related structures, systems, and components will operate to maintain plant parameters within normal bounds or will operate to put the plant in a safe condition if parameters exceed normal bounds in service.

17.2.11.1.1 Scope: Test programs include prerequisite and preoperational/acceptance tests, initial startup tests, surveillance tests, and equipment tests including those associated with plant maintenance, modification, procedure changes, and the acceptance of purchased material. 48

Procedures shall be established for scheduling and performance of surveillance testing to assure that the necessary quality of systems and components is maintained, that plant operations are within the safety limits, and that limiting conditions of operation can be met. The testing frequency shall be at least as frequent as prescribed in the Technical Specifications. Qualified plant staff personnel will perform surveillance tests. 42

Test performed following maintenance or modification shall satisfy the original design or test requirements or acceptable engineering determined alternative.

17.2.11.1.2 Personnel Qualifications: HL&P personnel and contracted personnel performing test activities, including developing and implementing test procedures and evaluating and reporting of test results, shall be trained and qualified in accordance with RG 1.58, (as specified in Table 3.12-1). Documented evidence of test personnel qualifications shall be maintained at the plant.

17.2.11.1.3 Preoperational and Startup Tests: The preoperational and startup test program is described in Chapter 14.

17.2.11.2 Test Procedures. Testing shall be performed in accordance with approved procedures. Test procedures shall control when a test is required and how the test is to be performed. Test procedures provide the following as necessary:

1. The requirements and acceptance limits contained in applicable design and procurement documents;

2. Instructions for performing the test, including prerequisites and caution or safety notes and in sufficient detail that the test operator interpretation is not required;

3. Specific test equipment with the accuracy required for performing the activity;

4. Provisions for data collection and storage;

5. Acceptance and rejection criteria;

6. Mandatory inspection hold points for witness by QC inspector;

7. Provisions for assuring that test prerequisites have been met; 42

8. Provisions for control of jumpers, lifted leads, or safety tags;

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

10. Special considerations for suitable environmental conditions shall be noted on the test procedures, as necessary.

17.2.11.3 Data Recording, Evaluation, and Retention. Test data shall be recorded and test results reviewed and approved by qualified individuals or groups. Test procedures, test data, and test data evaluations shall be retained as part of the plant record.

17.2.12 Control of Measuring and Test Equipment

17.2.12.1 Calibration Program. The calibration and control program established for STPEGS shall assure that tools, gauges, and instruments maintain their required accuracy. The Plant Manager shall be responsible for the implementation of the calibration program. Each organization shall be responsible for assuring that the measuring and test equipment (MTE) it uses has been properly calibrated.

Procedures shall be established for control and calibration of MTE. The procedures provide for the following:

1. Identifying MTE that require calibration, the required calibration frequency, the applicable calibration procedure, the group responsible for calibration, the setpoints and accuracy requirement for the item, the calibration results, the equipment maintenance history, the date of the last calibration, and the due date for the next calibration.

2. Identification of each piece of MTE with a unique serial number traceable to the test data.

3. A calibration label will be attached by MTE 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.

4. Calibration frequency, based on the required accuracy, purpose, degree of usage, stability characteristics, and other conditions affecting the measurement.

5. A requirement for reference standards to have an uncertainty error of no more than one-fourth of the tolerance of the equipment being calibrated, unless the minimum uncertainty is limited by the state of the art. In these cases, standards shall have an accuracy that assures the equipment being calibrated will be within the required tolerance and that the basis of acceptance is documented. 42

6. Traceability of reference and transfer standards to nationally recognized standards, and provisions for documenting the basis for calibration where national standards do not exist.

7. Documented investigations to determine the validity of previous inspections and tests performed when measuring and test equipment is found to be out of calibration. The investigations shall evaluate the necessity of repeating original measurements, inspections, tests, or calibrations to establish the acceptability of such items.

8. Repair or replacement of calibration, measuring, and test equipment consistently found to be out of calibration.

Inspection, test, maintenance, repair, and other procedures shall include provisions to assure that MTE used in activities affecting quality are of the proper range, type, and accuracy to verify conformance to requirements and test parameters.

Special calibration and control measures shall not apply to rulers, tape measures, levels, and other devices if normal commercial practice affords adequate accuracy.

17.2.12.2 Records. Records of HL&P plant calibration activities shall be maintained by the plant staff.

17.2.13 Handling, Storage, and Shipping

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

Procedures shall be developed for the storage and control of safety-related materials and equipment to minimize the possibility of damage or lowering of quality while in storage. Material and equipment shall be stored at locations which have a designated storage level. The various storage levels shall be procedurally defined and shall have prescribed environmental conditions. The storage conditions shall be in accordance with design and procurement requirements to preclude damage, loss, or deterioration due to harsh environmental conditions. Items having limited calendar or operating life shall be identified and controlled to preclude the use of items whose shelf life or operating life has expired.

Procedures shall be developed for storage of chemicals, reagents, lubricants, and other consumable materials, which will be used in conjunction with safety-related systems.

Storage conditions commensurate with the safety classification of the materials will be maintained.

The overall program for control of handling, storage, and shipping complies with RG 1.38, (Reference Table 3.12-1). 42

17.2.13.1 Special Procedures. Procedures shall be prepared for items that require special handling and shall be available prior to the items being handled. Other items not addressed by special procedures shall be handled in accordance with sound material handling practice. Operators of special handling and lifting equipment shall be experienced or trained in the use of the equipment.

17.2.13.2 Inspection. Procedures shall be established which identify special handling tools and equipment for routine maintenance and inspection. Routine inspections shall verify the acceptability or nonconformance of equipment and rigging.

17.2.13.3 Procurement Controls. Procurement documents and procedures shall identify packaging requirements for safety-related items during shipping, handling, or storing. The packaging protection specified may vary in degree consistent with the items' appropriate protection classification.

17.2.13.4 Storage Surveillance. Stores Department procedures shall require periodic surveillance of stored items to verify specific protective environmental requirements for particular equipment that may be in effect.

The QA surveillance program shall provide for routine surveillance of stored items to verify compliance with storage requirements.

17.2.13.5 Records. Records shall be maintained to document activities for handling, shipping, and storing safety-related items.

17.2.14 Inspection, Test and Operating Status

17.2.14.1 Status Program. Procedures shall be developed for identification of inspection, test, and operating status of safety-related structures, systems and components. These procedures will provide for:

1. Identification of the inspection, test, and operating status of structures, systems, and components throughout fabrication, installation, and test;

2. Control of the application and removal of inspection and welding stamps and status indicators, such as tags, markings, labels, and stamps;

3. Identification of the status of nonconforming, inoperative, or malfunctioning structures, systems, or components to prevent inadvertent use. This function is performed by various HL&P organizations in accordance with approved procedures; 42

4. Methods to control altering the sequence of required tests, inspections, and other operations on safety-related structures, systems, and components are subject to the same controls as the original review and approval;

5. Administrative control of nondestructive test reports and status indicators;

6. Verification of the application of welding stamps;

7. Administrative control of hold and equipment status tags used in the plant.

17.2.14.2 Inspection and Test Status. The inspection and test status of items received at the Plant shall be identified in accordance with procedures. The QC receipt inspector shall identify acceptability of the inspection by affixing the appropriate tag to the item where practical. 48

The cognizant Operations Unit 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 Operations Unit Supervisor or Control Room Operator advised of the current status of tests or inspections in progress which may affect plant operations. 42

17.2.14.3 Operating Status. The operating status of systems, structures and components that are in the process of maintenance, modification, ..., inspection, or refueling shall be controlled by a tagging system. ...agging procedures shall include:

1. Authorization for requesting that equipment be removed from service;

2. Checks which must be made before approving the request;

3. Approval to remove equipment from service;

4. Responsibility and action necessary for isolating the equipment; and

5. Responsibility and actions necessary for returning the equipment to operating status.

17.2.14.4 Nonconforming Item Status. Nonconforming items or structures shall be identified with a nonconformance hold tag in accordance with Section 17.2.15 to prevent inadvertent use.

17.2.14.5 Manufacturing Inspection and Test Status. Procurement documents shall require suppliers of safety-related items to maintain the status of required inspections or tests throughout the manufacturing process to preclude inadvertent bypassing of such inspections and tests.

HL&P QA vendor surveillance personnel or designee shall perform selective surveillance or inspection as required by the procurement documents to verify adherence to inspection and test status requirements.

17.2.14.6 Sequence Change Control. 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 that was received by the original procedure. 42

17.2.15 Nonconforming Material, Parts, and Components

17.2.15.1 Nonconformance Control. Procedures shall be established for the control of identified nonconformances to prevent the inadvertent use of defective or indeterminate items. Items that deviate from approved specifications, codes, drawings, or other applicable documents are considered as nonconforming. These procedures shall provide for documenting the nonconforming item or nonconforming activity.

Nonconformance documentation shall identify the specifics of the nonconformance and serve as a notification of the responsible organization. The nonconformance documentation shall state the particular drawing, procedure, specification, or other requirement not met; shall state the disposition; shall record the review and approval of the disposition; shall indicate the reinspection of the item, if applicable; and shall record the closure authority of the nonconformance.

To prevent the inadvertent use or installation of nonconforming items, they shall be clearly identified where practical to indicate their unacceptable status, and if possible they are segregated until the nonconformance is properly dispositioned.

Material nonconformance disposition categories are:

1. "Use-as-is";

2. "Reject"; 42

3. "Rework" in accordance with documented procedures; and

4. "Repair" in accordance with documented procedures.

Procedures shall identify the individuals or groups responsible for providing the disposition of nonconformances. The "use-as-is" and "repair" disposition of nonconforming items shall be approved and justified in writing by Engineering prior to implementation. The disposition and recommended action are reviewed by QA and approved by the Plant Manager or the Startup Manager as appropriate, prior to implementation. 49 Q260. 57N

Repaired and reworked items shall be reinspected to inspection criteria at least as stringent as those applied to the original work. Reinspection results are documented on nonconformance reports, inspection reports, or other suitable type document by QC personnel.

17.2.15.2 Supplier Control. Procedures shall provide for the control of further processing or delivery of nonconforming or defective items found at a supplier facility pending a decision on their disposition. When a contractor, supplier, or service organization identifies a nonconforming item and recommends a "use-as-is" or "repair" disposition, concurrence of the responsible HL&P Engineering group with the disposition is required. 42

17.2.15.3 Conditional Release. Nonconforming material, parts, and components may be installed after the effect of their installation has been evaluated and the installation approved by the Plant Manager, Engineering, and the Operations QA Manager. Nonconforming items which may not be installed are those which because of their makeup and intended use cannot be returned to their original state after being installed and those which if installed in and later removed from a system, structure, or component, would cause degradation. Except for proof testing, installed nonconforming items are not energized, used, or placed in service until the action required by the disposition has been completed and reinspected. 48 42

17.2.15.4 Trend Analysis. Deficiencies reported shall be analyzed by the QA Department for identification of unsatisfactory quality trends. The results of these analyses shall be reported to the affected organization and executive management. Significant adverse trends shall be handled in accordance with Section 17.2.16.

17.2.15.5 Reportable Conditions Significant conditions during plant operations involving a defect or noncompliance in a delivered component or service which could create a substantial safety hazard shall be reported to the Nuclear Regulatory Commission pursuant to the requirements of 10CFR21 during operation and 10CFR50.55(e) during the preoperational test phase.

17.2.16 Corrective Action

17.2.16.1 Identification and Correction. Procedures shall be established to assure that conditions adverse to quality are promptly identified, reported, and corrected to preclude recurrence. Corrective actions associated with the resolution of deficiencies identified in Nonconformance Reports, Corrective Action Reports, audits and surveillance findings are processed in accordance with Sections 17.2.15, 17.2.16, and 17.2.18, respectively. 42

These deficiency reporting mechanisms identify conditions adverse to quality in systems, components, equipment, processes, and procedures. The action for disposition of the deficiency is documented on the appropriate deficiency report forms. The QA Organization will track the status of all deficiencies.

Deficiency reports identify conditions adverse to quality in all safety-related activities. The corrective action for problems identified by deficiency reports are determined by the responsible organization and reviewed by QA. The QA Organization verifies satisfactory completion of the corrective action. Unacceptable completion of corrective action is identified by QA and returned to the the responsible organization for correction. This may result in suspension of the activity.

Disputes over corrective action are normally resolved by the Plant Manager or during initial testing by the Startup Manager. Should this resolution not be satisfactory, the parties may elevate the matter to higher management for resolution. 48

Corrective action documentation shall include documentation of the cause, and the action taken to correct and to preclude the recurrence of similar conditions adverse to quality.

42

17.2.16.2 Significant Conditions Adverse to Quality. Procedures which identify and track deficiencies shall require management review of each report to determine if the condition is siguificant. 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 for review and assessment. Significant items or conditions identified at STPEGS shall be reviewed and corrective action shall be recommended on conditions adverse to safety regarding operating procedures.

17.2.17 Quality Assurance Records

17.2.17.1 Sufficiency of Records. Procedures shall be developed to assure that sufficient records are maintained to furnish evidence to activities affecting quality. The program for QA records control shall meet the requirements of 10CFR50, Appendix B, and RG 1.88 (Reference Table 3.12-1).

To assure that proper documents are identified as QA records and properly stored, procedures shall identify those documents which are defined to be QA records. Procedure(s) shall identify the retention time for each document, with retention time being consistent with applicable codes, standards, and procurement documents. These records include, but are not limited to: plant history; operating logs; records of principle maintenance and modification activities; reportable occurrences and other records required by the Technical Specifications; results of reviews, inspections, tests, audits, and material analysis; 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.

The records control program provides evidence that activities relating to quality are defined, 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; reference to nonconformance reports; and reference any action taken in resolving any nonconformances.

17.2.17.2 Record Identification and Retrievability. To ensure that QA records are identifiable and retrievable, a computerized records management system has been developed. This system provides for a unique alphanumeric identification code affixed to each document. Registers are provided which list all QA records and their identification codes. The system provides the ability to cross-reference the identification code with other possible identifiers of the document (i.e., specification number, purchase order number, class-bin number, equipment name). QA records are stored on photographic media; the file location of any document is available from the computer. 42

17.2.17.3 Protection of Records. QA records shall be stored in a permanent records storage facility which complies with RG 1.88 (Reference Table 3.12-1).

17.2.18 Audits

17.2.18.1 Audit Program. A comprehensive audit program in compliance with RG 1.144 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 audit system shall include internal and external audits. The system shall be planned, documented, and conducted to assure coverage of applicable elements of the Operations QA Program, and overall coordination and scheduling of audit activities. Audit planning shall be based on an audit plan which is issued annually, as a minimum, by the QA Organization and includes the organization and activity to be audited, audit frequency, and schedule. The annual audit plan shall be approved by the Manager, NA. 42 48

Audits shall be conducted using written plans in accordance with QA procedures. The procedures require evaluation of work areas, activities, processes, goods, services, and the review of documents and records for quality related practices, procedures, and instructions to determine the effectiveness of the implementation of OQAP and compliance with 10CFR50, Appendix B. The following areas are included in the audit program:

1. Operation, maintenance, and modifications;

2. Preparation, review, approval, and control of designs, specifications, procurement documents, instructions, procedures, and drawings;

3. Material control instructions;

4. Indoctrination and training programs;

5. Implementation of operating and test procedures; 42

6. Calibration of measuring and test equipment;

7. Corrective action and nonconformance control;

8. Performance of the plant staff, including training records;

9. Startup testing and administrative controls; and

10. Plant inspection activities.

An individual audit plan shall identify the audit scope, the requirements, the applicable documents, and written procedures or checklists as appropriate. The audit plan and any necessary reference documents shall be available to the audit team members.

External audits shall be conducted by QA as a measure for the evaluation of procurement sources and as a postaward source verification of conformance to procurement documents. Audits conducted by other organizations, including other utilities or A/Es, may be employed as a means of postaward source verification in lieu of HL&P performed audits.

Applicable elements of suppliers' QA programs shall be audited on a frequency that is based upon the status and safety classification of the activities being performed. Audits are generally initiated when sufficient work is in progress to determine whether the organization is complying with the established quality requirements. Subsequent contracts or contract changes which significantly change the scope of activities by the same supplier shall be considered in establishing audit requirements.

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

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

2. The conformance of facility operation to provisions contained within the Technical Specifications and applicable license conditions - at least once per twelve months.

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

Supplemental audits shall also be conducted when (1) significant changes are made in functional areas of the QA Program, such as significant reorganization or procedure revisions; or (2) when it is suspected that the quality of the item is in jeopardy due to deficiencies in the QA Program; or (3) when a systematic, independent assessment of program effectiveness is considered necessary. 42

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

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

17.2.18.4 Auditor Qualification. Audits shall be performed by qualified personnel. Procedures shall establish qualification requirements for lead auditors and auditors. Auditor qualification requirements shall include education and work experience; training, on-the-job performance, and audit participation. Procedures shall include requirements for maintaining audit proficiency by auditors through regular and active participation in the audit process, training, or review of procedures, codes, standards, and other applicable documents.

Other personnel may assist in the conduct of audits, such as technical specialists, management representatives, or auditors in training. Such personnel selected for auditing assignments shall have training or experience commensurate with the scope, complexity, or special nature of the activities to be audited. Personnel performing audits shall have no direct responsibility for the area audited. 42

17.2.18.5 Audit Results. Records shall be collected, stored, and maintained in accordance with the requirements in Section 17.2.17.

Audit reports shall be distributed to the audited organization as well as the appropriate executive management for their review and evaluation.

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

HOUSTON LIGHTING & POWER COMPANY

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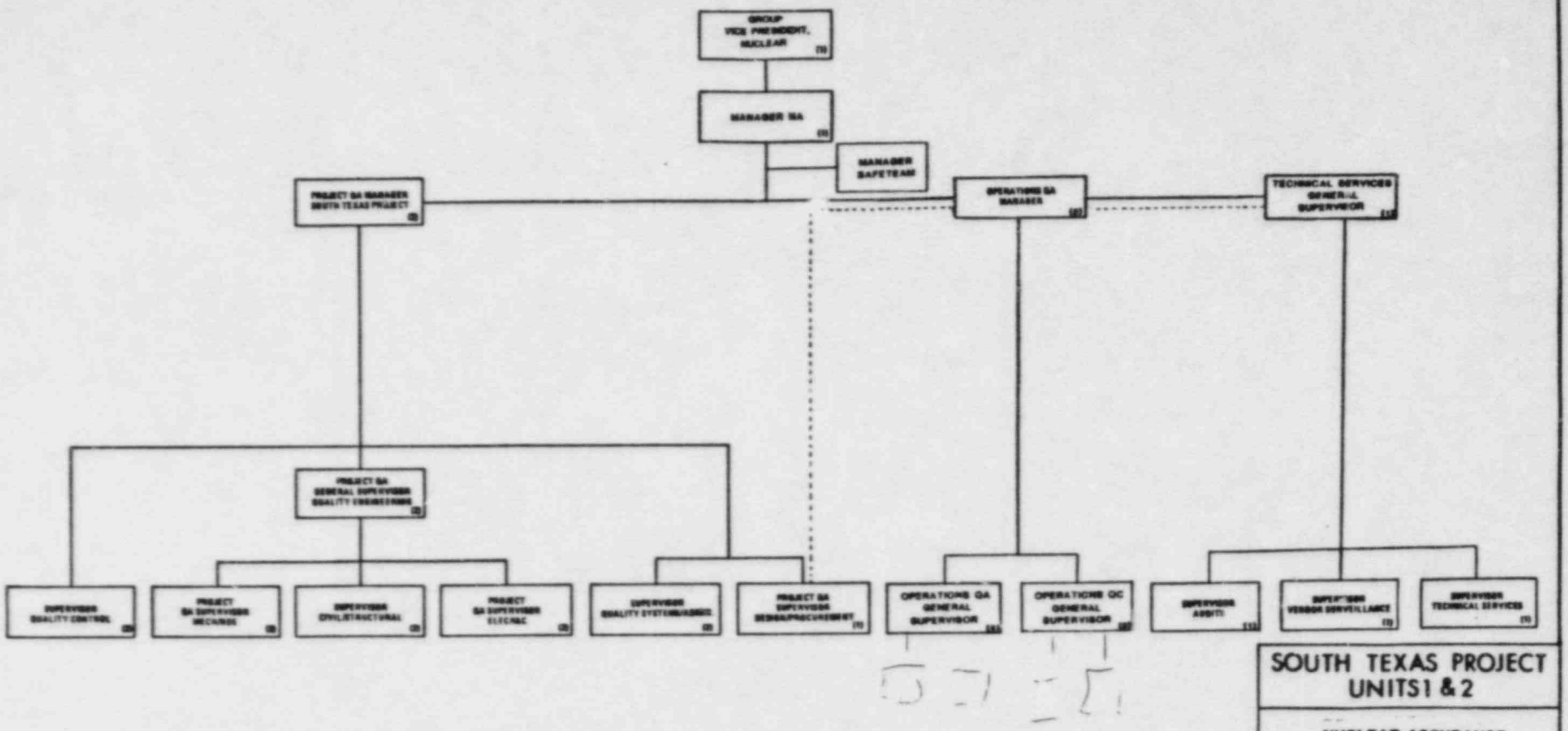
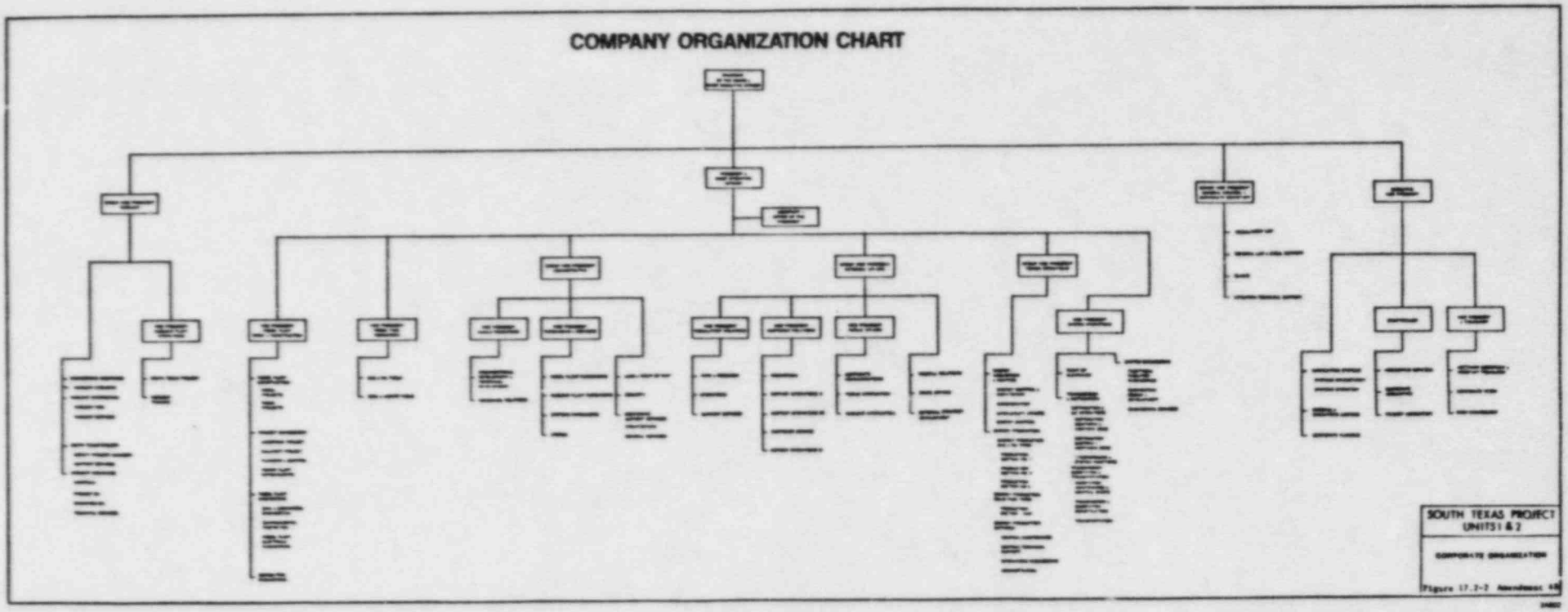


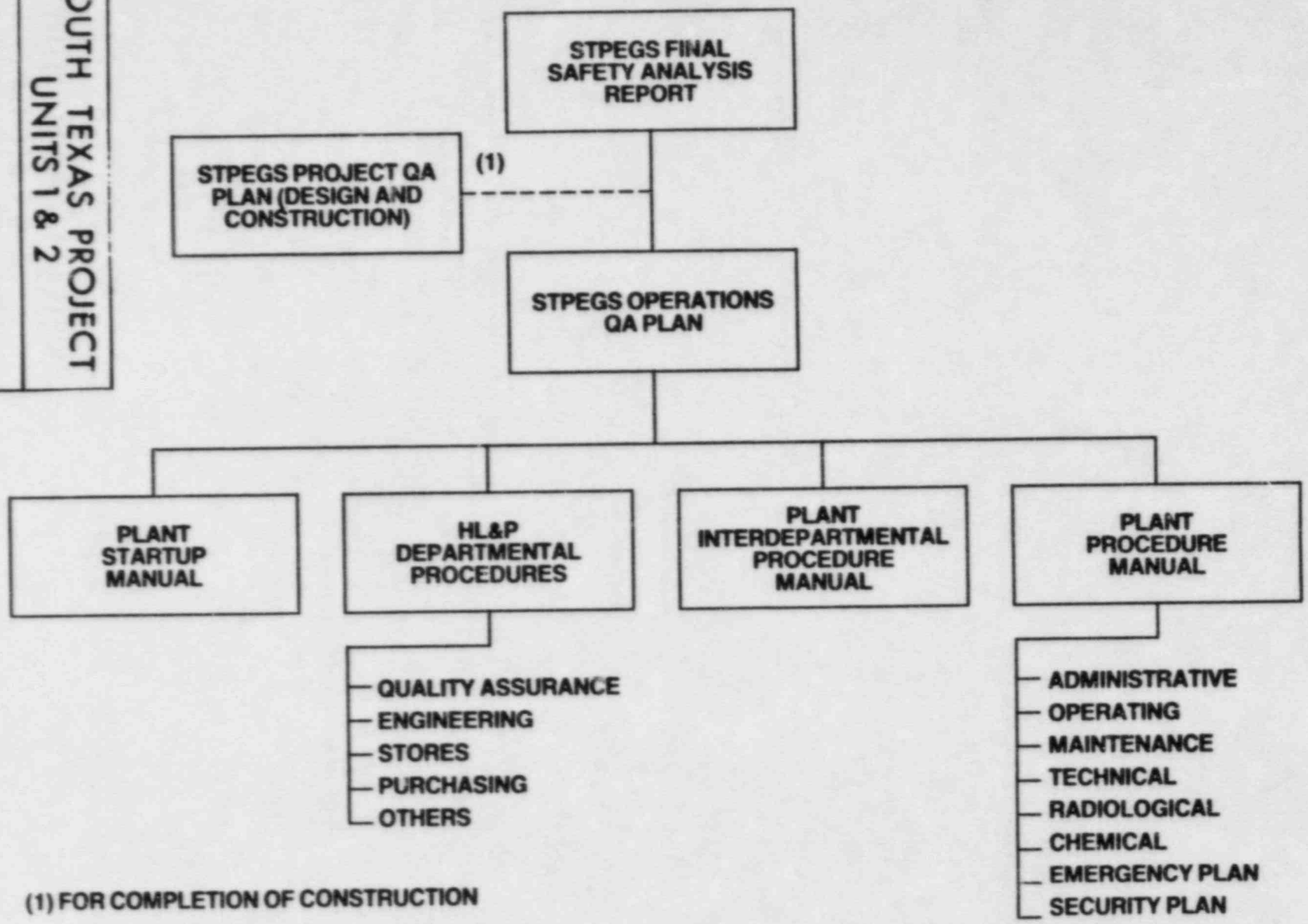
Figure 17.2-1 Amendment 48


COMPANY ORGANIZATION CHART
SOUTH TEXAS PROJECT
UNITS 1 & 2
CORPORATE ORGANIZATION
Figure 17.2-2 Amendment 15

SOUTH TEXAS PROJECT
UNITS 1 & 2

QA PROGRAM DOCUMENTS

Figure 17.2-3 Amendment 42



ATTACHMENT B

Planned changes to FSAR 17.2

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Figure 17.2-1
Revise as shown in Attachment C.

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Revise: Vice President Human Resources to read
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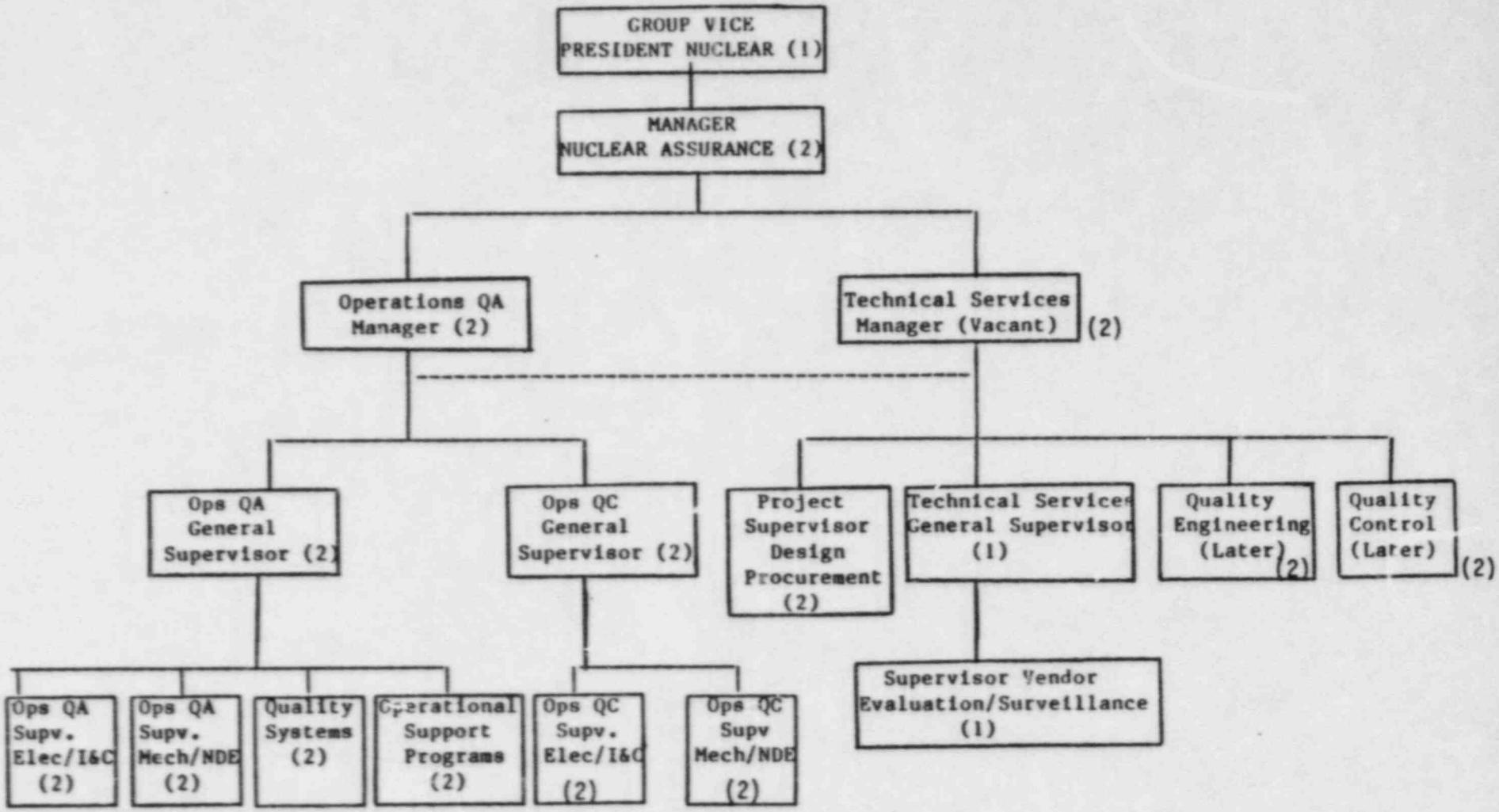
Revise: Personnel Relations to read Employee Relations

Delete: Security from Group VP Admin.

Add: Nuclear Security to Vice President Nuclear Plant Operations

HOUSTON LIGHTING & POWER COMPANY
NUCLEAR ASSURANCE DEPARTMENT



(1) Offsite Organization
(2) Onsite Organization

------- Programmatic direction pending filling of Technical Services Manager Position

Figure 17.2-1

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
HOUSTON LIGHTING & POWER COMPANY, ET AL.	)	Docket Nos. 50-498 OL 50-499 OL
	)	
(South Texas Project, Units 1 and 2)	)	

MATERIAL FACTS AS TO WHICH THERE IS NO GENUINE ISSUE TO BE HEARD

Pursuant to 10 C.F.R. § 2.749(a), Applicants hereby submit a statement of material facts as to which there is no genuine issue to be heard in conjunction with their motion for summary disposition of Issue F.

(1) HL&P's Quality Assurance Program for the operation of STP (the STP Operations QA program) is described in Attachments A, B, and C to the March 10, 1986, Affidavit of Mr. James E. Geiger (attached).

(2) The STP operations QA program includes appropriate plans for inspections, audits, surveillance, documenting, tracking and trending of deficiencies, review of vendor quality programs, and other monitoring of STP quality related programs. Affidavit of Mr. James E. Geiger at ¶¶ 5-9.

(3) The STP operations QA program includes appropriate requirements for personnel qualification, experience, and training. Affidavit of Mr. James E. Geiger at ¶¶ 11-13.

(4) The STP operations QA organization will have a staff and organization sufficient to perform its functions in compliance with Appendix B. Affidavit of Mr. James E. Geiger at ¶¶ 5-10 and Attachment C.

(5) The STP operations QA organization is structured to provide organizational independence in the performance of its functions. Affidavit of Mr. James E. Geiger at ¶ 3.

(6) The STP operations QA program satisfactorily addresses each of the 18 Criteria of Appendix B. Affidavit of Mr. James E. Geiger at ¶ 15 and Attachments A and B.

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CERTIFICATE OF SERVICE

I hereby certify that copies of "Applicants' Motion For Summary Disposition On Issue F" have been served on the following individuals and entities by deposit in the United States mail, first class, postage prepaid, or by arranging for delivery as indicated by asterisk, on this 12th day of March, 1986.

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Chairman, Administrative Judge
Atomic Safety and Licensing Board Panel
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

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Administrative Judge
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Frederick J. Shon*
Administrative Judge
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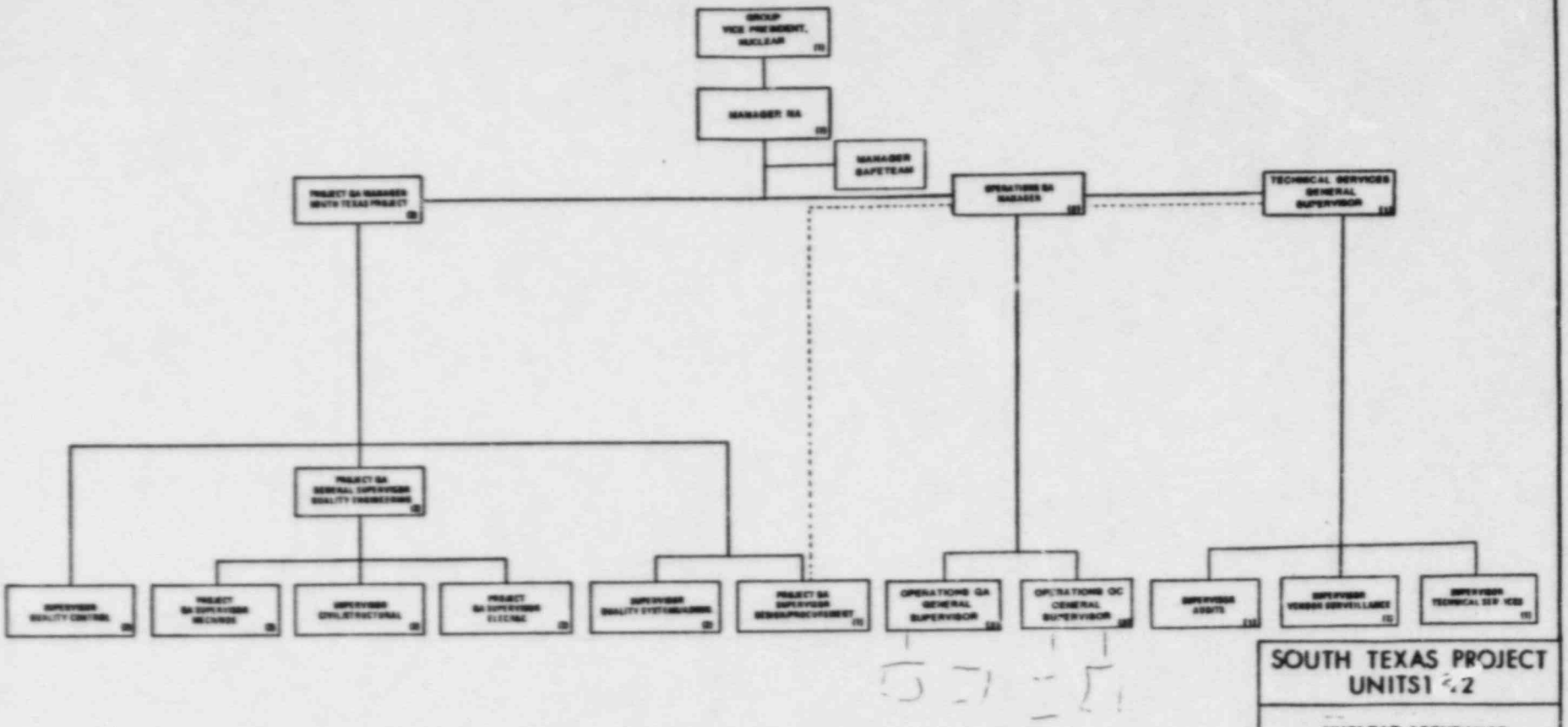
Docketing and Service Section
Office of the Secretary
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Alvin W. Gutterman

* By Messenger

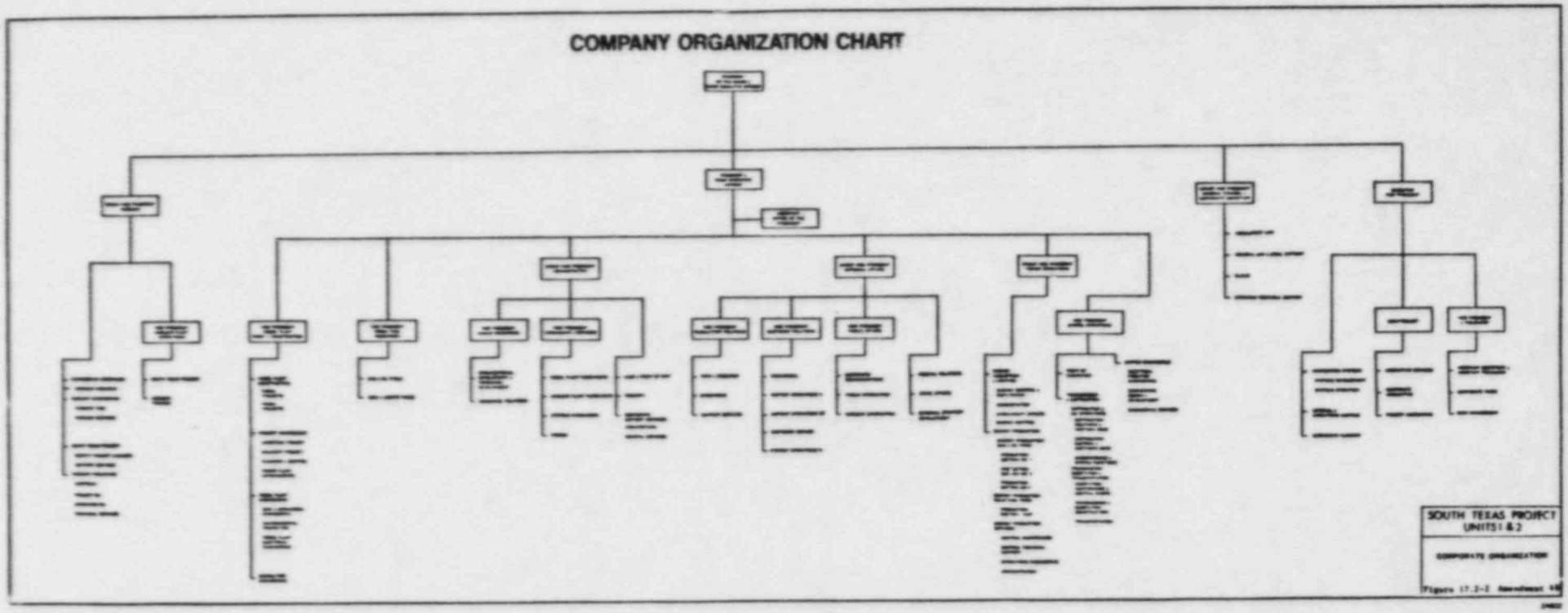
HOUSTON LIGHTING & POWER COMPANY
NUCLEAR ASSURANCE DEPARTMENT



SOUTH TEXAS PROJECT
UNITS 1 & 2

NUCLEAR ASSURANCE DEPARTMENT

Figure 17.2-1 Amendment 48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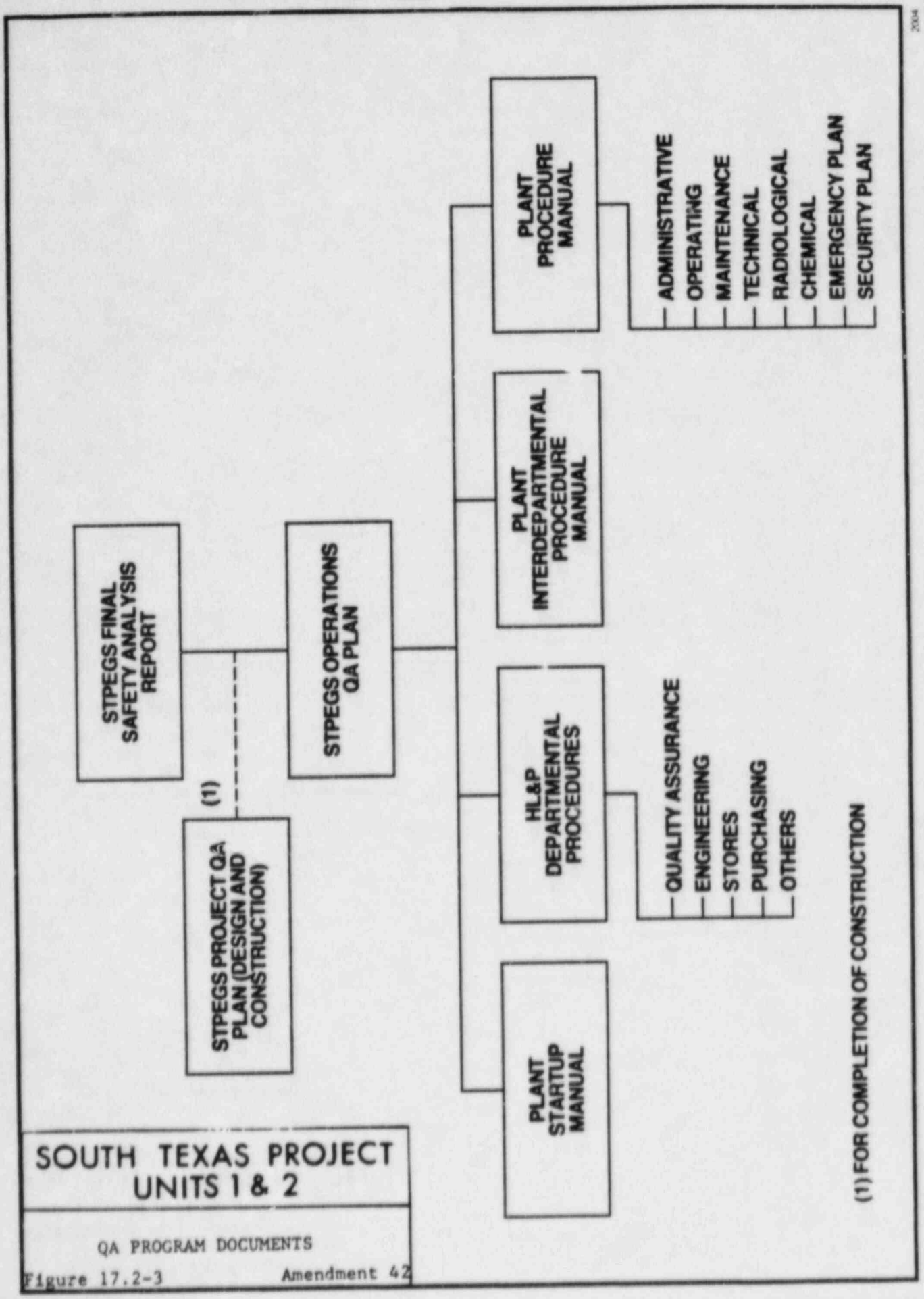

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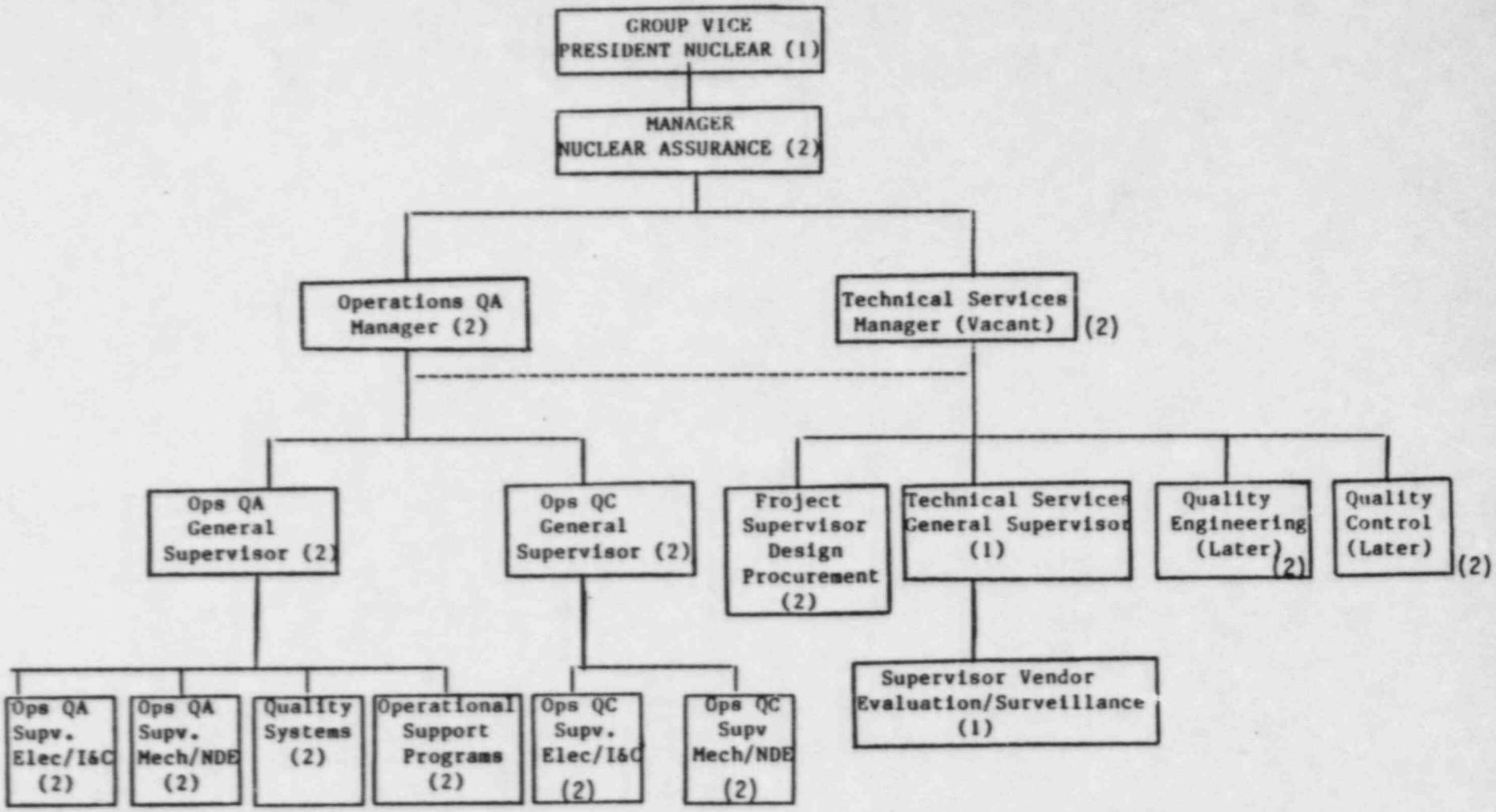

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