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TQR 7.0	Control of Purchased Items & Services	6		June 12, 1990
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C - Baseline Document Matrix		10		April 30, 1992
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

AUG 20 1991

RECEIVED
AUG 26 1991
Licensing

SGTB:TOM
71-0169

Florida Power & Light Company
ATTN: Mr. J. H. Goldberg, President
Nuclear Division
P.O. Box 14000
Juno Beach, FL 33408

Dear Mr. Goldberg:

Enclosed is Quality Assurance Program Approval for Radioactive Material Packages No. 0169, Revision No. 4.

Please note the conditions in the approval.

Sincerely,

Charles E. MacDonald, Chief
Transportation Branch
Division of Safeguards
and Transportation, NMSS

Enclosure:
As stated

NRC FORM 311
(9-87)

U. S. NUCLEAR REGULATORY COMMISSION

QUALITY ASSURANCE PROGRAM APPROVAL
FOR RADIOACTIVE MATERIAL PACKAGES

1. APPROVAL NUMBER: 0169
REVISION NUMBER: 4

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, and Title 10, Code of Federal Regulations, Chapter 1, Part 71, and in reliance on statements and representations heretofore made in Item 5 by the person named in Item 2, the Quality Assurance Program identified in Item 5 is hereby approved. This approval is issued to satisfy the requirements of Section 71.101 of 10 CFR Part 71. This approval is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

2. NAME			3. EXPIRATION DATE
Florida Power & Light Company			August 31, 1994
STREET ADDRESS: P.O. Box 14000			4. DOCKET NUMBER
CITY: Juno Beach	STATE: FL	ZIP CODE: 33408	71-0169

QUALITY ASSURANCE PROGRAM APPLICATION DATE(S): July 17, 1989 and August 9, 1991

5. CONDITIONS

1. Activities conducted with regard to transportation packages under applicable criteria of Appendix B to 10 CFR Part 50 authorized by this approval: procurement, maintenance, repair and use. All other activities (i.e., design, fabrication, assembly, and modification) shall be satisfied by obtaining certifications from package suppliers that these activities were conducted in accordance with an NRC-approved QA program. It shall remain the responsibility of the licensee-user that all transportation activities meet the requirements of 10 CFR §71.101.

2. Records for each shipment of licensed material as required by 10 CFR 71.91(a) must be retained for a period of three years.

UNITED STATES NUCLEAR REGULATORY COMMISSION

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Charles E. MacDonald

Charles E. MacDonald

AUG 20 1991

CHIEF, TRANSPORTATION BRANCH
DIVISION OF SAFEGUARDS AND TRANSPORTATION
OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS

DATE

Florida Power & Light
Topical Quality Assurance Report
Change Summary
June, 1992

Enclosure II

Marked up version of portions of the last Florida Power and Light Topical Quality Assurance Report (FPLTQAR 1-76A) submitted showing changes that have been made.

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NEED FOR POLICY

To avoid undue risk to the health and safety of the public and company employees, it is necessary to design, construct, operate and modify nuclear power plants with a high degree of functional integrity, quality and reliability.

STATEMENT OF POLICY

It is the policy of Florida Power & Light Company to design, construct, operate and modify nuclear power plants of a quality level that will meet or exceed government regulations and will merit public confidence by providing electricity in a reliable, efficient and safe manner.

RESPONSIBILITY

~~The President of Florida Power & Light Company is responsible for the execution of the Quality Assurance Program for Flordia Power & Light Comany nuclear power plants~~. **The Chairman of the Board and Chief Executive Officer of Florida Power & Light Company has delegated responsibility for execution of the Quality Assurance Program for Florida Power & Light Company nuclear plants to the President, Nuclear Division.** The authority for developing and verifying execution of the program is delegated to the Vice President Nuclear Assurance~~, through the President Nuclear Division.~~

The head of each organization performing quality-related activities is responsible for: identifying those activities within their organization which are quality-related as defined by the QA Program; establishing and clearly defining the duties and responsibilities of personnel within their organization who execute those quality related activities; and planning, selecting, and training personnel to meet the requirements of the QA Program.

~~R. E. Tallon~~ **J. H. Goldberg**
~~Florida Power & Light~~ **President, Nuclear Division**

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The Topical Quality Assurance Report (FPLTQAR 1-76A) contains the description of the Florida Power & Light Company (FPL) Quality Assurance Program relative to its nuclear power plants. This report consists of three parts: The Introduction, which delineates the purpose and summarizes the scope and applicability of the Topical Quality Assurance Report. The second part, Topical Quality Requirements (TQRs), which delineate Quality Assurance Program requirements and summarizes the FPL approach to activities related to materials, parts, components, systems, and services included in the Quality Assurance Program. The third part, Appendices, which provide supporting statements, tabulations, and technical analyses or deviations which are not, in themselves, the subject of the report.

The Topical Quality Assurance Report shall be an integral part of the corporate Quality Assurance Manual (FPL-NQA-100A), and shall delineate the generic requirements and responsibilities by which FPL implements the corporate Quality Assurance Program. Revisions and changes to this Report will be made in accordance with a Quality Procedure as outlined in TQR 2.0. The remainder of the Quality Assurance Manual is comprised of Quality Procedures (QPs) which serve as the documents which describe how the interfacing of tasks between departments or organizations is achieved. The Quality Procedures also cover those technical elements which require a common corporate position for interfaces or resolution of problem areas.

In addition to the Quality Assurance Manual, Quality Instructions (QIs) are developed as required by each of the implementing plants and departments. Quality Instructions describe the measures to be used to implement the quality requirements of the Quality Assurance Manual. The Quality Instructions describe actions and responsibilities to be performed within a department or organization and address the requirements of the appropriate Topical Quality Requirements, and Quality Procedures.

The FPL Quality Assurance Program meets the requirements provided by the NRC Regulatory Guidance and Industry Standards as listed in Appendix C of this Topical Quality Assurance Report.

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The requirements of this Topical Quality Assurance Report apply to safety-related materials, parts, components, systems and structures; ~~and to~~ services employed for design, procurement, construction, operation, maintenance, refueling, repair, and modification~~.~~; **and packaging and shipping of radioactive material (but not design and fabrication of packages for which a license, certificate of compliance, or other approval must be issued by the NRC) in accordance with 10 CFR part 71.** The safety-related systems for each plant are specified in the respective plant Safety Analysis Report.

The FPL Quality Assurance Program fully addresses the requirements of Appendix B to 10 CFR Part 50. The Topical Quality Assurance Report shall be applicable to all existing nuclear plants, those under construction, and supporting FPL departments, and will be referenced in the Safety Analysis Report (SAR). For future plants, the description of activities, requirements, and organizational structures that are unique to a particular plant shall be addressed in the respective SAR document.

Vice President Nuclear Assurance

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1.1 GENERAL REQUIREMENTS

The Florida Power & Light (FPL) organizational structure shall be defined such that the responsibilities for establishment and implementation of the Quality Assurance Program are clearly identified. The authority and duties of individuals and organizations performing quality assurance and quality control functions shall be described, and shall illustrate the organizational independence and authority necessary to identify problems; to initiate, recommend, or provide solutions; and to verify implementation of solutions. In addition, the description shall illustrate that persons or groups responsible for verifying the correct performance of an activity are independent of the person or groups responsible for performing the activity.

1.2 IMPLEMENTATION

The FPL Chairman of the Board and Chief Executive Officer is ultimately responsible for the execution of the Quality Assurance Program for FPL nuclear power plants. The authority for developing and verifying execution of the program is delegated to the President Nuclear Division and the Vice President Nuclear Assurance. The reporting relationship of each department involved with the Quality Assurance Program is shown in Appendix A.

To provide for a review and evaluation of Quality Assurance Program policies and activities, the President Nuclear Division has established the Company Nuclear Review Board (CNRB). This organization's responsibilities are defined in Section 1.2.1.3.a.

In addition, a Quality Assurance Program Review Committee (QAPRC) has been established to review changes to the Quality Assurance Program and to provide an interface for quality matters in each department affecting quality. The QAPRC is an interdepartmental organization with the responsibility to review and resolve recommended changes to the Quality Assurance Program. This committee is administered by the Quality Assurance Services group. Quality Assurance Program changes reviewed by the QAPRC are reviewed and signed by the department heads or individuals listed on each Quality Procedure.

1.2 (Cont'd)

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A Quality Assurance Program Review Committee (QAPRC) Member shall be designated by the head of each department or organization. The QAPRC Member is the prime interface for coordination of quality-related matters within the member's department, with the Quality Assurance Department, and with other departments.

The head of each department or organization performing quality-related activities is responsible for: a) identifying those activities within the organization which are quality-related as defined by the Quality Assurance Program; b) establishing and clearly defining the duties and responsibilities of personnel within his organization who execute those quality-related activities; and c) planning, selecting, and training personnel to meet the requirements of the Quality Assurance Program. The responsibility, authority, and organizational relationship for performing quality-related activities within each organization shall be established and delineated in organizational charts and written job or functional descriptions.

The organization charts in Appendix A illustrate the lines of authority and areas of responsibility for each of the organizations that are involved in quality-related activities. Below are listed the departments and organizations that have Quality Assurance responsibilities. Specific organizational responsibilities for implementation of the Quality Assurance Program are described in the corresponding sections.

1.2.1 Nuclear Division

1.2.1.1 Nuclear Operations

1.2.1.2 Nuclear Engineering and Licensing

1.2.1.3 Nuclear Assurance

1.2.1.4 Nuclear Analysis and Controls

1.2.2 Support Departments

1.2.2.1 Corporate Secretary
- Corporate Records
- Documentary Files

1.2.2.2 Environmental Affairs

1.2.2.3 Protection & Control Systems

1.2.2.4 Information Management

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1.2.1 Nuclear Division

Throughout plant life, the Nuclear Division maintains control of and responsibility for nuclear power plant design, preoperational and start-up testing, operation, maintenance, refueling, and modification of the plant in accordance with written and approved procedures.

The President Nuclear Division has overall responsibility for the Nuclear Divisions's activities. Reporting to the President Nuclear Division are: the Senior Vice President Nuclear Operations, Vice President Nuclear Assurance, Vice President Nuclear Engineering and Licensing, and the Manager Nuclear Analysis and Controls.

1.2.1.1 Nuclear Operations

The Senior Vice President Nuclear Operations is responsible for nuclear power production. Reporting to the Senior Vice President Nuclear Operations are the Vice President-Turkey Point Plant, Vice President-St. Lucie Plant, Manager Nuclear Security, Manager Nuclear Training, Manager Nuclear Services and Director - Nuclear Construction Services.

a. The Vice President-St. Lucie Plant and Vice President-Turkey Point Plant are accountable for the operation, maintenance, and modification of their respective nuclear plant, as well as the selection, development and direction of the assigned staff. They will act as liaison between the plants and corporate headquarters, and are accountable for ensuring that company policies and procedures are properly implemented and continued at the nuclear site.

Reporting to the Plant Vice President - **Turkey Point Plant** are the Plant **General** Manager, the Services Manager, the Human Resources Manager, **the Business Systems Manager** and the ~~Superintendent—Plant~~ Licensing **Manager**. Also, the Plant Vice President has functional responsibility over ~~the Site Construction Services Manager,~~ the Site Engineering Manager~~, and the Site Materials Management Superintendent~~ providing work direction to ~~those~~ **this** group.

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1.2.1.1 (Cont'd)

Reporting to the Vice President - St. Lucie Plant are the Plant General Manager, the Services Manager, the Licensing Manager, and the Human Resources Manager. Also, the Plant Vice President has functional responsibility over the Nuclear Material Management Superintendent and the Construction Services Manager providing work direction to those groups.

The Plant General Manager - PSL and Plant General Manager - PTN, through the respective Plant Vice President, are responsible for the operation of the nuclear plant.

The Plant Nuclear Safety Committee (PNSC) at Turkey Point Plant and the Facility Review Group (FRG) at the St. Lucie Plant are comprised of key plant management and staff personnel as described in the plant Technical Specifications. The PNSC/FRG serves the plant manager in a technical advisory capacity for the review of all safety-related procedures and activities that impact plant safety and the facility operating license.

b. The Manager Nuclear Training prepares policy documents regarding nuclear training and provides support to secure the necessary resources to ensure that Nuclear Division personnel are adequately trained. They must have adequate technical and job-related skills to provide safe and efficient operation while complying with NRC requirements.

c. The Manager Nuclear Security is responsible for coordinating the overall development and implementation of the FPL nuclear security program

d. The Manager Nuclear Services is accountable for technical staff support to the Nuclear Operations Department and certain centralized special functions. This group consists of section supervisors and technical specialists, with functions including Health Physics, Chemistry, Radiological Waste, and Emergency Planning.

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1.2.1.1 (Cont'd)

e. The Director - Nuclear Construction Services is responsible for directing and administering effective management of the department to ensure compliance to the corporate policies, practices and procedures; and providing qualified construction support personnel to the Site Construction Services Managers.

Reporting to the Director - Nuclear Construction Services are the Manager Construction Control and the Site Construction Services Managers.

The Manager Construction Control is responsible for:

- o monitoring budget performance against planned engineering activities as budgeted by the Construction Services organization;
- o monitoring the efficient utilization of resources expended against Construction Services budgeted activities; and
- o ensuring economic utilization of capital construction equipment at all Construction Services locations.

The Site Nuclear Construction Services Manager is responsible for:

- o completing the assigned project in compliance with technical and other project specifications, and for the application of the provisions of the Quality Assurance Manual during the project;
- o obtaining corrective action (along with Nuclear Materials Management) from contractor's management and, when necessary, exercising the authority to stop work on project activities adverse to quality.

Reporting to the Site Construction Services Manager are the Lead Construction Supervisors. The Lead Construction Supervisor is responsible for conformance of project construction activities to the requirements of specifications, codes, regulations and site procedures. The Lead Construction Supervisor supervises the construction personnel

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1.2.1.1 (Cont'd)

assigned to the project, and coordinates construction activities, including the assignment of construction personnel.

The overall responsibility for Plant Changes and Modifications to operating plants is defined in each plant's Technical Specifications. The work of installation and administration of Plant Changes and Modifications can be assigned to Nuclear Construction Services. The Site Construction Services Manager will report to the Director - Nuclear Construction Services; however, the ~~Plant~~ Vice President - **PSL or Services Manager - PTN** has functional responsibility over the Site Construction Services Manager by providing work direction.

Project Team Members are appointed by their home department heads as the departmental representative on the respective project, when requested by the Site Construction Services Manager. Team Members, other than Quality Assurance, report functionally to the Site Construction Services Manager, but continue to receive administrative support and technical direction from their home department. Team members are responsible to the Site Construction Services Manager for home department support to the project.

Activities affecting quality may be performed by FPL or contracted. Should any of these functions be contracted, the contractor may perform the activities under his own Quality Assurance Program, which must have prior approval by FPL Quality Assurance, or the contractor may directly adopt the requirements of the FPL Quality Assurance Manual. If the contractor implements the Quality Control function directly to the FPL Quality Assurance Manual requirements, the contractor's Quality Control Supervisor shall have the authority and freedom to administer the Quality Control program.

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1.2.1.2 Nuclear Engineering and Licensing

The Vice President Nuclear Engineering and Licensing is responsible for nuclear plant design, materials management and maintaining the operating licenses.

Reporting to the Vice President Nuclear Engineering and Licensing are the Director - Nuclear Engineering, Manager - Turkey Point Engineering, Manager - St. Lucie Engineering, Director - Nuclear Licensing, Director - Nuclear Materials Management, Manager - Information Management and Manager - Project Controls.

a. Nuclear Engineering Department

The Nuclear Engineering Department includes personnel located at both nuclear sites and at the corporate office. Nuclear Engineering performs design-related activities and delegates design-related activities to qualified contractors. For activities performed by Nuclear Engineering, the work is governed by FPL's Quality Assurance Program, and Nuclear Engineering is responsible for approval of the design output. Delegated activities are performed in accordance with an FPL approved Quality Assurance Program and the contractor is responsible for approval of design output. Nuclear Engineering is responsible for defining the scope of delegated activities and the responsibilities of the contractor. Prior to the release of design outputs by contractor organizations, Nuclear Engineering ensures that the contractor is technically qualified to perform the design-related activity.

The Director - Nuclear Engineering, Manager - Turkey Point Engineering and the Manager - St. Lucie Engineering direct the engineering aspects of all FPL nuclear power plant projects during construction and operation to assure efficient, economical and reliable power plant design, conformance with engineering schedules and budgets and compliance with regulatory requirements. The Manager - Turkey Point Engineering and Manager - St. Lucie Engineering are responsible for on-site engineering support to the nuclear units. The Director - Nuclear Engineering is responsible for engineering projects and support at the Corporate Nuclear Engineering

1.2.1.2 (Cont'd)

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Office. Project Managers are assigned to provide overall management and control of designated projects as required by the Vice President - Engineering and Licensing.

The Nuclear Engineering Department is responsible for:

- power plant design-related aspects of the FPL Quality Assurance Program throughout all phases of plant life. This responsibility extends from initial engineering evaluations of plant design-related site characteristics, through preliminary and detailed design, construction, operation and decommissioning;
- development and maintenance of the design control program governing design-related activities performed by Nuclear Engineering and for providing technical support to the Quality Assurance Department for assessing the adequacy, implementation and effectiveness of contractor design control programs;
- the preparation, revision, approval and distribution of plant design records that are identified to be maintained as "as constructed" drawings during plant operation;
- the development, control, and performance of certain aspects of items and services procurement, including establishment of procurement standards, the technical evaluation, equivalency evaluation, and commercial grade dedication of replacement parts/components for nuclear plants. This also includes review and approval of procurement documents for safety related materials and equipment, as well as configuration control activities for controlled design documentation associated with the procurement of items;
- forecasting FPL's nuclear fuel requirements and the availability of nuclear fuel;
- determining sources of supply, evaluating alternatives, and negotiating and establishing arrangements with suppliers for acquisition, processing and delivery of nuclear fuel and related services for the nuclear fuel cycle;
- assuring that technical and quality requirements (including inputs from other FPL departments) are incorporated in fuel contracts and letters of authorization, and that these documents have the necessary approvals;

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1.2.1.2 (Cont'd)

- o administering and managing contracts for nuclear fuel and related services to assure that technical and quality obligations are met, and serving as FPL liaison in all matters of nuclear fuel and fuel-related contracts;
- o administering and managing spent fuel disposal contracts with Department of Energy and serving as FPL liaison in matters of nuclear fuel and high level waste disposal;
- o performing the project management function with respect to fuel management, design, licensing, delivery and other technical aspects of nuclear fuel;
- o all fuel related design, analyses, reviews, and technical assistance necessary to ensure the safe, reliable, and economic operation of the nuclear plants;
- o the optimization of nuclear fuel cycle economics within nuclear safety and operating constraints, as well as providing fuel related information, such as forecasts of nuclear fuel requirements to support licensing and regulatory requirements;
- o the development and/or review of fuel and nuclear physics design;
- o implementing and maintaining the FPL corporate nuclear material accountability program as outlined in the FPL Special Nuclear Material Control Manual;
- o providing support to the Quality Assurance Department for their auditing of nuclear fuel design and fuel assembly manufacturing;
- o performing audits and coordinating accountability reporting on all nuclear fuel;
- o developing and providing, to appropriate FPL groups, information necessary to determine FPL's fuel-related costs and to finance fuel-related expenditures;
- o providing technical support of activities associated with component reliability, materials evaluations, inspections, corrosion protection, non-destructive examination, and ASME Section XI implementation/problem resolution for nuclear plant components;
- o providing specific component expertise, metallurgical support, and non-destructive examination and inspections;
- o establishing the FPL Welding Program to meet the requirements of the Quality Assurance Program and applicable codes and standards;

1.2.1.2 (Cont'd)

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- o developing, maintaining, and controlling the FPL Welding Control Manual to implement the FPL Welding Program;
- o originating and qualifying welding procedure specifications; and
- o providing technical direction to personnel within the FPL Welding Program.

b. Nuclear Licensing Department

The Nuclear Licensing Department is responsible for:

- o Nuclear Division corporate interface with the NRC;
- o Nuclear Division corporate administrative point of contact with INPO;
- o Managing NRC safety and regulatory issues and developing effective strategies to resolve them;
- o Advising senior Nuclear Division management on a regular basis of important developments in licensing areas which could significantly affect the Nuclear Division;
- o Providing Nuclear Division licensing hearing and legal services;
- o Providing corporate licensing support and guidance to onsite licensing organizations;
- o Administering the Nuclear Problem Reporting System;
- o Administering the Commitment Tracking System;
- o Administering the Operating Experience and Feedback System.

c. Nuclear Materials Management Department

The Nuclear Materials Management Department is responsible for procurement, negotiation, and administration of contracts (except nuclear fuel), purchase and control of materials, and the administrative duties required to support these functions. Reporting to the Director Nuclear Materials Management are the Manager Nuclear Contracts, and the Superintendents Site Material Management (Turkey Point and St. Lucie).

1.2.1.2 (Cont'd)

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1) Nuclear Contracts

Nuclear Contracts is responsible for generation, negotiation and issuance of contracts and purchase orders for services associated with repairs, constructors, construction managers, Architect Engineer (A/E) and consulting services, and material and equipment as required to support Nuclear Division support staff.

Nuclear Contracts is also responsible for assuring that technical and quality requirements developed by others are incorporated into the procurement documents which it authorizes and that these documents have the required approvals. Services for nuclear safety-related applications are secured only from approved suppliers, or commercial grade, as applicable. Nuclear Contracts is responsible for maintaining traceability of procurement document records until transmitted to an approved storage facility.

2) Site Material Management

The Site Superintendents Material Management (Turkey Point and St. Lucie) are responsible for the procurement and control of FPL Nuclear Division's materials and equipment. Site Material Management consists of Purchasing and Warehousing.

- Purchasing is responsible for the procurement of materials and equipment by FPL for its nuclear power plants with the exception of Nuclear Fuel. Materials and equipment for nuclear safety-related application are secured only from approved suppliers, or as commercial grade, as applicable. Purchasing is responsible for assuring that technical and quality requirements developed by others are incorporated in the procurement document which it authorizes, and

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1.2.1.2 (Cont'd)

that these documents have the required approvals. It is responsible for maintaining traceability of procurement document records until transmitted to an approved storage facility.

- o Warehousing is responsible for the receipt, handling, storage, shipping and issue of materials and equipment received at the plant site for control by Site Material Management. This responsibility encompasses material, parts and components for plant equipment through all phases of plant life. During operations, Warehousing also performs additional quality-related activities such as handling and segregation for nonconforming items received for material control.

d. Project Controls Department

The Project Controls Department is responsible for:

- o Coordinating the establishment of scope baseline for the Nuclear Engineering, Nuclear Materials Management, and Nuclear Licensing Departments.
- o Developing estimates for the scope, and annually establishing budgets for the work to be performed.
- o Monitoring cost and schedule performance.
- o Reforecasting costs and schedule based on performance history and emergent trends.
- o Providing management with corrective action recommendations, and implement same into revised scope, cost, and schedule baselines.

e. Nuclear Information Management Department

The Nuclear Information Management Department is responsible for the identification, design, development, implementation, on-going maintenance, and control of all Nuclear Division data processing information systems excluding process applications.

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1.2.1.2 (Cont'd)

This encompasses the following accountabilities:

- o direct the development, implementation, and on-going maintenance of information management systems;
- o coordinate and direct the computer hardware and telecommunication planning and control within the Nuclear Division;
- o ensure that the Nuclear Division's Information Management Program is in full compliance with software quality assurance regulations and guidelines;
- o administer and control system access;
- o execute software production release and change control activities;
- o administer physical databases and provide on-going technical support.

1.2.1.3 Nuclear Assurance Department

The Vice President Nuclear Assurance is responsible for the selection, technical direction, administrative control (e.g. performance appraisal, salary review, hire/fire, position assignment) staffing, training and development of personnel required for supervisory and operating continuity of the Quality Assurance Department, Nuclear Safety Speakout Group and CNRB administrative support. The Vice President Nuclear Assurance also initiates QA Program policy changes when necessary. In addition, the Vice President Nuclear Assurance is responsible for selecting a team independent of the Quality Assurance Department to perform periodic audits of the Quality Assurance Department. The results of these audits are presented to the Vice President, Nuclear Assurance and the CNRB. Reporting to the Vice President Nuclear Assurance are the Manager Nuclear Safety Speakout, the Site Quality Manager - Turkey Point, the Site Quality Manager - St. Lucie, the Quality Manager - Juno Beach, and for administrative support, the CNRB Chairman.

1.2.1.3 (Cont'd)

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a. Company Nuclear Review Board (CNRB)

The Company Nuclear Review Board (CNRB), reporting to the President Nuclear Division, is comprised of executive level members of management with responsibilities for the execution of the Quality Assurance Program. The CNRB reviews, or directs the performance of reviews of, activities concerning the technical aspects of the operating nuclear power plant insofar as they impact on plant safety, the health and safety of the public, and laws, regulations and licensing commitments. In addition, audits of these areas are performed under the cognizance of the CNRB.

The CNRB composition is described in Section 6.0 of each facility's Technical Specifications and in its current policy. Subjects within the purview of the CNRB are listed in the appropriate plant Technical Specifications. The CNRB has the authority to carry out its responsibilities by way of written action letters, verbal directions, meeting minutes or appointed subcommittees. Where necessary, the CNRB may use consulting services to perform required reviews.

The CNRB is responsible for reviewing and evaluating Quality Assurance Program policies and activities. Quality Assurance Program status reports shall be periodically prepared by the Quality Assurance Department and routed to the members of the CNRB for review.

CNRB meetings shall be held by the Chairman to keep members apprised of conditions including significant problems that require management attention. Periodic audits of the Quality Assurance Department shall be performed by a team independent of the Quality Assurance Department. The results of this audit are presented to the Vice President Nuclear Assurance and the CNRB.

The Chairmen of the Independent Safety Engineering Groups, at Turkey Point and St. Lucie, report to the Chairman of the CNRB.

1.2.1.3 (Cont'd)

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b. Quality Assurance Department

The Quality Assurance Department shall be responsible for administering the FPL Quality Assurance Program. This includes developing and verifying implementation of corporate policies, plans, requirements, and procedures affecting quality. This is accomplished through the Quality Assurance Department. The Quality Assurance Department retains responsibility for delegated portions of the Quality Assurance Program by performing initial evaluation and subsequent periodic audits of the contractors' Quality Assurance Programs. The Quality Assurance Program responsibility further extends to the performance of audits within the Company to assure management that the established requirements and procedures are being implemented, and that the Program complies with the baseline document requirements.

The organizational freedom of the Quality Assurance function is accomplished through the corporate structure, illustrated in Appendix A, which provides independence from those departments responsible for design, procurement, engineering, construction and operation. With quality assurance as its sole function the Quality Assurance Department, both on-site and off-site, is completely free from the cost and scheduling pressures of design, procurement, construction and operation. The Quality Assurance Department has the freedom and authority to: a) identify quality problems; b) initiate, recommend or provide corrective action; c) verify implementation of the corrective action; and d) recommend the stoppage of work or operations adverse to quality, when necessary. The Quality Manager - Juno Beach, the Site Quality Manager - St. Lucie and the Site Quality Manager - Turkey Point report administratively and functionally to the Vice President Nuclear Assurance. These reporting relationships assure that the Quality Assurance Department has direct access to the levels of management necessary to assure effective implementation of the Quality Assurance Program.

1.2.1.3 (Cont'd)

The Quality Manager - Juno Beach directs and administers the Corporate Quality Assurance Program, including developing and verifying implementation of policies, plans, requirements, procedures and audits which assure compliance with the baseline documents listed in Appendix C of this Topical Quality Assurance Report.

The duties, responsibilities, and authorities of each Quality Assurance group are described in the sections which follow.

1) Quality Assurance Services Group

Quality Assurance Services, reporting to the Quality Manager - Juno Beach, consists of the Quality Assurance Systems and Audits Group, the Quality Assurance Procurement Group, and the NDE Level III.

Quality Assurance Systems and Audits is responsible for the development and maintenance of the overall Quality Assurance Program, including the following:

- o develop and maintain the Quality Assurance Department Quality Instructions, Quality Assurance Department Training & Organization Manual, and the corporate Quality Assurance Manual; including the administration of the Quality Assurance Program Review Committee (QAPRC)
- o assist other departments in the development of Quality Instructions by review and comment and through interpretation of corporate Quality Assurance requirements;
- o develop and implement a Quality Assurance indoctrination program for FPL personnel, and a training program for the Quality Assurance Department;
- o prepare reports on Quality Assurance Program activities for review by the Company Nuclear Review Board;

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1.2.1.3 (Cont'd)

- maintain a file system for documentation of quality assurance activities performed by the Quality Assurance Department;
- review Regulatory Guides, Codes, SAR Document Commitments and Standards for impact on the Quality Assurance Program and recommend appropriate program changes;
- review documents submitted to the Company Nuclear Review Board (CNRB) as requested by the Quality Assurance Department CNRB member;
- plan, coordinate and implement a comprehensive system of periodic internal audits with support from the other Quality Assurance groups, when necessary;
- review FPL originated design specifications for inclusion of appropriate quality requirements.

Quality Assurance Procurement is responsible for assuring the quality of safety-related items and services, and their vendors, including the following:

- assist in the development and implementation of policies, plans, requirements and procedures for the requisition and purchase of materials, equipment and services related to nuclear power plants and to the acceptance and storage of equipment and material;
- perform appropriate surveillance of hardware during manufacture;
- develop and implement a program for auditing of supplier Quality Assurance/Quality Control programs including architect/engineer/ Nuclear Steam Supply System Suppliers;
- assure design-related activities performed by the Architect Engineer meet the quality aspects of the contract;
- review and approve FPL procurement documents and changes to these documents to assure that the necessary quality requirements are imposed;
- assist other FPL departments in the identification of quality problems associated with procurement and storage; initiate, recommend, or provide solution; and verify implementation of solutions;

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1.2.1.3 (Cont'd)

- o review, approve and periodically audit the execution of FPL contractor quality assurance programs;
- o maintain a file system for documentation of quality assurance activities performed by the Quality Assurance Procurement group;
- o evaluate the Quality Assurance capability of suppliers requested by the Nuclear Materials Management Department and maintain the Quality Assurance Department "Approved Suppliers List".

The responsibility of this group, in terms of phases of procurement, begins with the preparation of the procurement document, extends through receipt of shipment or performance of contract.

This group, through audits and surveillances, assures that the contractors' organizations performing Quality Assurance functions have sufficient authority and organizational freedom to implement effective Quality Assurance programs.

The NDE Level III is responsible for technical direction and monitoring the NDE activities performed by Quality Control at the plant sites (PTN and PSL). He is responsible for preparation, revision and implementation of NDE procedures, and the training, testing and qualification of NDE personnel performing these activities. He is also responsible for providing the programs and direction for performance of NDE activities meeting the ASME, AWS and other NDE code requirements.

2) Site Quality Assurance Groups - Turkey Point Nuclear (PTN) and St. Lucie (PSL)

Quality Assurance activities at the plant sites (PTN and PSL) are accomplished by the respective site Quality Assurance Groups, reporting to the Site Quality Manager. The Site Quality Manager has responsibility for on-site development and implementation of the Quality Assurance Program, including the following:

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1.2.1.3 (Cont'd)

- coordinate the development and implementation of policies, plans, requirements, and procedures for portions of the quality assurance program related to the operation and modification of nuclear power plants at the plant site;
- perform audits, assessments and other observations as specified in procedures and instructions to verify compliance with Quality Assurance Program commitments, identify quality problems and ensure timely corrective actions are taken in the areas of plant operation, system turnover, modification and maintenance; including such areas as refueling, inservice inspection and testing, procurement of spare/replacement parts, material storage, health physics, chemistry, plant security and fire protection;
- identify requirements, ensure inclusion of commitments in documents and verify implementation of the Quality Assurance Program during construction activities at the plant site through audits of FPL and contractor organizations;
- recommend stoppage of work or operations adverse to quality at the plant site in accordance with the appropriate Quality Procedures;
- review and comment on Quality Instructions or equivalent quality-related administrative procedures prior to issue, with respect to the requirements of the FPL Quality Assurance Program, the applicable Final Safety Analysis Report, and the applicable Technical Specifications;
- assure that the status is tracked for all open items identified by the Site Quality Assurance group, and inform appropriate management when there is an indication that a commitment will not be met on time;
- maintain a file system for documentation of quality assurance activities performed by the Site Quality Assurance group;
- review backfit procedures with respect to the FPL Quality Assurance Program (for procedure review requirements see TQR 5.0);
- review site generated FPL procurement documents and changes to procurement documents in accordance with the appropriate Quality Procedures;

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1.2.1.3 (Cont'd)

- o perform audits of the architect engineer and Nuclear Steam Supply System suppliers both on-site and off-site, in conjunction with the Quality Assurance Procurement group.

The interface with the Quality Assurance Procurement group ends with the receipt of a shipment of nuclear safety-related equipment at the plant site. The Quality Assurance program for the shipment is then within the purview of the Site Quality Assurance group.

The Quality Manager - Turkey Point and Quality Manager - St. Lucie are additionally responsible for the establishment and implementation of quality control aspects of the Quality Assurance Program at the plant site. Reporting directly to the Site Quality Manager ~~is~~ are the Quality Control ~~Superintendents~~ Supervisors who have the authority and freedom to administer the Quality Control program and, when necessary, to stop activities adverse to quality. The Quality Control ~~Superintendent, his staff,~~ Supervisors and personnel performing Quality Control inspection functions are required to be independent of groups or persons performing activities that they may be required to verify or inspect. Quality Control efforts include preparation and review of plant procedures, PCMs, and quality-related instructions; Quality Control personnel are also responsible for inspection, monitoring, surveillance, and review of plant activities to verify compliance with the provision of the facility operating license and the Quality Assurance Manual. Inspections are also performed to assure that backfit activities meet the requirements of engineering drawings, specifications, codes and standards. This responsibility extends from receipt inspections of material on-site to acceptance of the installed items prior to turnover to the Plant. It also includes verification of conformance of an item or activity accomplished during this period to quality requirements (e.g., records review, NDE, inspections). The Quality Control ~~Superintendent~~ Supervisors shall take corrective action for deficiencies identified, where applicable, and shall follow up on corrective action taken by other organizations until close out.

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1.2.1.3 (Cont'd)

Off-site interfaces for the resolution of quality-related problems and NRC items are with Nuclear Corporate Staff, FPL support departments as indicated in this Topical Quality Assurance Report, the architect engineer and the Nuclear Steam Supply System (NSSS) Quality Assurance Department. The Site Quality Assurance group interfaces with the Plant Vice President and his staff on-site by assisting in the resolution of quality-related problems.

c. Nuclear Safety Speakout

The Manager Nuclear Safety Speakout has responsibility for the management and implementation of the Nuclear Safety Speakout Program. Speakout provides a forum for employees and contractors to communicate their concerns to FPL. Concerns are documented, investigated and corrective actions are taken when necessary. The program offers confidentiality. Reporting to the Manager Nuclear Safety Speakout are the Turkey Point and St. Lucie Speakout Supervisors.

1.2.1.4 Nuclear Analysis and Controls

The Manager Nuclear Analysis and Controls, reporting to the President Nuclear Division, is responsible for coordinating the budget, rate, and cost control support to the plants and staff organizations; and coordinating Division business planning, target setting and monitoring of key performance indicators, and operations analysis activities.

1.2.2 <u>Support Departments</u>

Providing support activities for the Nuclear Division are the Corporate Secretary, Environmental Affairs, Protection & Control Systems, and Information Management. The reporting relationship of each department is described in the following sections and is shown in Appendix A.

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1.2.2.1 Corporate Secretary

Reporting to the Corporate Secretary are the Manager Corporate Records Services and the Supervisor Documentary Files.

a. Corporate Records Services

The Manager Corporate Records Services is responsible for: ensuring the Quality Assurance records program activities are managed in accordance with applicable laws and regulations; assisting with the development and implementation of effective and compatible records and micrographics programs; developing, approving and maintaining record retention schedules; establishing parameters for indexing in the corporate records' computerized Record Management System (RMS); locating acceptable record storage areas when requested; storage, retrieval and control of records/documents as requested by other departments; leading the evaluation of specially designated "Quality Assurance approved" storage facilities and maintaining the records of this evaluation.

b. Documentary Files

The Supervisor Documentary Files is responsible for receiving, maintaining, retrieving and storing the Quality Assurance records in connection with licenses and contracts received from other departments.

1.2.2.2 Environmental Affairs

Environmental Affairs is responsible for obtaining the federal and state environmental permits required for FPL facilities and operations. Environmental Affairs is responsible for overall coordination of non-radiological environmental monitoring (federal and state) programs at the nuclear power plant sites.

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1.2.2.2 (Cont'd)

The Manager Hazardous Substances Regulation, the Manager New Construction Licensing and Planning, the Manager Air and Water Permitting and Programs, the Chief Ecologist, and the Environmental Toxicologist report to the Director Environmental Affairs. The Director Environmental Affairs has overall responsibility for implementation of the Environmental Protection Plans at nuclear power plant sites and reports to the Senior Vice President of External Affairs.

The Environmental Affairs Department through its management of the Company Environmental Review Group (CERG) is responsible for overall coordination of environmental monitoring programs and requirements related to the Environmental Protection Plans. The CERG provides review of proposed changes to the Environmental Protection Plans, review of any violations of monitoring and/or limitation requirements of federal and state permits and Environmental Protection Plans and review of plant activities as described in those Environmental Affairs Department Environmental Procedures subject to QA requirements.

The CERG provides information to the Director Environmental Affairs and the CNRB Chairman on environmental matters for which requirements are included in Environmental Protection Plans.

1.2.2.3 Protection & Control Systems

Protection & Control Systems is responsible for test, calibration and maintenance of certain high voltage electrical protective relays for safety-related systems of the nuclear plant. Activities of Protection & Control Systems include final wiring connection checks, preoperational check-out and test of system protection devices and providing inspection of equipment under their cognizance. Additional responsibilities include providing certain setpoint and checkpoint values for protective devices.

The Director of Protection & Control Systems reports to the Vice President of Power Delivery.

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1.2.2.4 Information Management

Information Management consists of Computer Operations, Client Services, and Quality Management reporting to the Vice President of Information Management.

The Computer Operations Department is responsible for the installation and maintenance of the operating system software and the operation of the computer hardware for FPL's corporate computer systems. The application programs used by the nuclear departments executes on these corporate computers.

The Manager Computer Center, the Manager Operations Support Services, and the Manager Technical Systems report to Manager Computer Operations .

Client Services is responsible for software libraries on FPL's in-house time-sharing Computer System (CMS) that are under its control.

Quality Management provides support to the Nuclear Division in their development and maintenance of computer applications in the area of software library controls.

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3.1 GENERAL REQUIREMENTS

A Quality Assurance Program shall be established for design-related activities. This design control program shall ensure that the design is defined, controlled and verified; that applicable design inputs are specified and correctly translated into design output documents; that design interfaces are identified and controlled; that design adequacy is verified by persons other than those who designed the item; and that design changes, including field changes, are governed by control measures commensurate with those applied to the original design.

Design records shall be developed to provide evidence that the design process and design verification were performed in accordance with the requirements of FPL's Quality Assurance Program. The design organization (Nuclear Engineering or designated contractor organization) shall be responsible for the content of these records.

Design records shall include design output documents and the important steps in the design effort. The intent of this documentation is to allow a technically qualified person to understand how the design was developed, and to allow that person to verify the design based on the design documentation and engineering data sources referenced therein.

3.2 IMPLEMENTATION

The design organization's Quality Assurance Program for design control shall be approved by the FPL Quality Assurance Department prior to the release of approved design output by the design organization. The design organization is the organization responsible for approval of design output. Quality Procedures and Quality Instructions shall be developed to delineate design control requirements governing design-related activities performed by Nuclear Engineering and for delegating activities to contractor organizations.

3.2.1 Design Process

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The design organization shall specify and document its design activities to the level of detail necessary to permit the design to be developed in a correct manner and to permit verification that design output documents satisfy design input requirements.

Design methods, materials, parts, equipment and processes, including those associated with commercial grade items that are essential to the function of the structure, system or component shall be selected, reviewed and approved for suitability of application by the design organization.

Design inputs shall be identified, documented, reviewed and approved by the design organization. They shall be specified to the level of detail necessary to permit the design activity to be carried out in a correct manner, and to provide a consistent basis for making design-related decisions, performing design verification and evaluating design changes. Changes to approved design inputs, including the reason for the changes, shall be approved, documented and controlled by the design organization.

The design organization shall identify aspects of manufacture, construction, inspection and testing critical to achieving the function of the structure, system or component. Quality standards and quality requirements shall be specified on design output ~~or procurement~~ documents. Changes from approved quality-related requirements specified in design output, including the reason for the changes, shall be approved, documented and controlled by the design organization.

Design analyses shall be controlled and documented. Approved design output documents and approved changes thereto shall be relatable to the design input by documentation in sufficient detail to permit verification. The design organization shall establish procedures to review industry design experience. As appropriate, this experience shall be made available to cognizant design personnel.

3.2.2 Design Change Control

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Changes to approved design output documents, including field changes, shall be justified, subjected to control measures commensurate with those applied to the original design, and shall be reviewed and approved by the same design organization that approved the original design unless other organizations are specifically designated.

Where a significant design change is necessary because of an incorrect design, Nuclear Engineering shall determine the cause of the incorrect design. As necessary, design and verification procedures shall be reviewed and modified to correct the cause of the incorrect design.

During the operations phase, design changes shall also be reviewed by operating plant management and Quality Control. The intent of this review is to ensure that implementation of the design change is coordinated with any necessary changes to operating procedures and practices, and required Quality Control Surveillance activities.

In accordance with plant technical specification requirements, nuclear safety-related design changes are reviewed by the Plant Nuclear Safety Committee (PNSC) or Facility Review Group (FRG) and the Company Nuclear Review Board (CNRB).

3.2.3 Design Interface Control

The design organization shall be responsible for identification, control, resolution and documentation of design interface requirements. Procedures shall establish interface controls between participating organizations and between the various technical disciplines within the design organization. These procedures shall include the assignment of responsibility, and be in sufficient detail to cover the preparation, review, approval, release, distribution and revision of design output documents.

3.2.3 (Continued)

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For interdisciplinary design, approval documentation of each involved discipline of the design organization shall appear on the design output document or on a separate document directly traceable to the design output. The design organization shall designate a discipline(s) responsible for resolution of the comments of participating organizations. The designated discipline(s) approval of a design output shall also document resolution of the comments of participating organizations.

3.2.4 Design Verification

Design control measures shall be established to independently verify the design inputs, design process, and that design inputs are correctly incorporated into design output. The design organization shall develop procedures that govern design verification. These procedures shall require that the design organization identify and document the verification method utilized and that the documentation clearly identify those individuals performing the design verification.

Design verification shall be performed by technically qualified individual(s) or group(s) other than those who performed the design. The original designers and verifiers may both be from the design organization. Design verification by the designer's immediate supervisor shall be limited to those instances where the supervisor is the only qualified individual available within the design organization. These instances are further restricted to designs where the supervisor did not specify a singular design approach, or did not restrict design methods or alternatives, or did not specify design inputs (unless the specified design inputs have already been independently verified). Justification for verification by the designer's immediate supervisor should be documented along with the extent of the supervisor's involvement in the design.

The design organization shall be responsible for determining the extent of design verification and methods to be employed. The methods may include one or more of the following: the performance of design reviews, the use of alternate calculations, or the performance of qualification tests. This shall apply to original design and to changes to approved design output.

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3.2.4 (Continued)

Where reverification is not required for a design change, the bases shall be documented by the design organization. Cursory supervisory reviews and mathematical checks for calculation accuracy do not satisfy the independent design verification requirement. Design verification shall normally be completed prior to release of design output for procurement, manufacture or release by the design organization for use in design activities by a participating organization. Verification shall be conducted based on the status of design at the time of release of design documents. Where this timing cannot be met, verification may be deferred provided that the unverified portion of the design output, and all design output documents, structures, systems and components based on the unverified portion of design are identified and controlled. In all cases verification shall be completed prior to relying on any affected items to perform their design functions.

3.2.5 Computer Programs/Software

Organizations utilizing computer programs/software as a method for design shall maintain instructions or procedures to effect the following:

1. That such programs/software are verified for their particular use using benchmark problems, alternate calculations, comparison with other code or experimental results, design review or similar methods,
2. That such programs/software have been qualified for their specific application sufficient to ensure valid results,
3. That such programs/software are provided with user instructions sufficient for a technically competent individual to follow,
4. That configuration controls are provided to assure that such programs/software changes or modifications are documented and controlled.

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4.1 GENERAL REQUIREMENTS

Procurement of items and services shall be performed in accordance with procedures which assure that applicable regulatory requirements, design bases, code requirements, and other requirements necessary to assure quality shall be included or invoked by reference in the procurement document. These procedures shall delineate the sequence of actions to be accomplished in the preparation, review, approval, and control of procurement documents. Changes to procurement documents shall be subjected to the same degree of control as utilized in the preparation of the original documents.

4.2 IMPLEMENTATION

4.2.1 Procurement Document Provisions

Quality Procedures and Quality Instructions shall identify the responsibilities and actions required of the organizations originating, reviewing, approving, and controlling procurement documents. These procedures shall require the procurement documents to specify:

a. The scope of work to be performed.

b. Technical requirements (by specifying or referencing) which shall include the applicable components and materials identification requirements, drawings, specifications, procedures, instructions, codes, and regulations and provide for identification of applicable test, inspection and acceptance requirements, or special process instructions.

c. Quality Assurance Program requirements to be imposed on contractors which shall include the applicable portions of 10 CFR 50, Appendix B.

d. Right of access which provides, as appropriate, for access to contractor facilities and records for inspection or audit by FPL or its designated representative, and to access for events such as witness and hold points.

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4.2.1 (Continued)

e. The documentation required to be prepared, maintained, and/or submitted to FPL or its representative for review, approval, or historical record. The time of submittal of this documentation and the retention and disposition of quality assurance records which will not be delivered to FPL shall be prescribed.

Consideration shall be given to the need for special requirements in the preparation and review of procurement documents. Procedures and instructions shall be prepared and implemented for special on-site handling or storage requirements. The receiving department shall be responsible for on-site implementation of the special handling, shipping, and storage requirements for items received and controlled by their organization.

Special handling, preservation, storage, cleaning, packaging, and shipping requirements shall be specified, as appropriate, in the design documents or purchase orders. The requirements established in the design documents or purchase orders shall be consistent with industry accepted standards, the importance of equipment or material to nuclear safety, and the material or equipment's sensitivity to damage. The preparation of these design documents or purchase orders may be delegated by FPL to other organizations. ~~The preparation and control of design documents and purchase orders is described in TQR 3.0.~~

4.2.2 Procurement Document Review

Procurement documents shall be reviewed for correctness, and inspectability and controllability of quality requirements in accordance with Quality Procedures and Quality Instructions to assure that the appropriate provisions of Section 4.2.1 are included. This review shall be documented and performed by designated technical and quality evaluators, and shall assure that the procurement document was prepared, reviewed and approved as required. Spare or replacement parts for safety-related

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4.2.2 (Continued)

structures, systems, and components are subject to technical or quality requirements equivalent to or better than those used for the original equipment.

Changes to procurement documents, whether initiated by FPL or their representative, are subjected to the same degree of control as that utilized in the preparation of the original document.

4.2.3 Selection of Procurement Sources

The Nuclear Materials Management Department shall verify that the procurement document has been reviewed and approved, and that the supplier has been approved prior to issuing the purchase order for safety related materials or services. Supplier approval is not necessary if the important characteristics of the item can be verified by inspection or test.

The overall procurement requirements including those related to planning, bid evaluation, and review and concurrence of suppliers Quality Assurance programs are described in Quality Procedures and Quality Instructions.

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6.1 GENERAL REQUIREMENTS

The distribution of documents such as instructions, procedures, drawings, and software which provide guidance, specifications, or requirements affecting the quality of nuclear safety-related structures, systems, and components shall be controlled. These documents shall be prepared, reviewed for adequacy, and approved for release by authorized personnel in the affected organization. These documents shall be distributed to locations where the activity is performed.

Changes to controlled documents shall be so identified and shall be reviewed and approved by the same organization that performed the original review and approval unless otherwise specified in the implementing procedures. In addition, procedures shall ~~provide for controlling obsolete documents to~~ preclude the possibility of use of outdated documents.

6.2 IMPLEMENTATION

6.2.1 Responsibility

Quality Procedures shall delineate the control measures for controlled documents including direction for the review for adequacy, approval by authorized personnel, distribution of controlled documents and verification that changes are received. These control measures shall apply to documents affecting the quality of nuclear safety-related structures, systems, and components such as:

a. design specifications;
b. design, manufacturing, construction, and installation drawings;
c. quality program manuals, procedures, and instructions;
d. inspection, manufacturing, and test procedures and instructions;
e. plant operating and maintenance procedures;
f. plant Safety Analysis Reports and related design criteria documents.

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6.2.1 (Continued)

The requirements for control of procurement documents are contained in TQR 4.0.

During all phases of the plant life, it shall be the responsibility of each organization issuing and using controlled documents to use document control procedures. Procedures shall document the responsibility for review, approval, maintenance and distribution of documents including assuring revisions are initiated to interfacing documents within their organization.

During the design and construction phase and for operating plant changes under their cognizance, the Architect/Engineer, Nuclear Steam Supply System vendor, and other contractors shall be responsible for assuring that all revisions required as a result of FPL comments, nonconformances, or engineering work are incorporated into revised documents.

6.2.2 Distribution of Controlled Documents

Quality Procedures shall specify that controlled documents and revisions be distributed to locations where the activity is performed.

6.2.3 Drawing Control

FPL assumes control of the drawings and Master Drawing List after initial operation of the facility or delegates this activity to a qualified contractor. Nuclear Engineering shall require that participating design organizations update the drawings and Master Drawing List to reflect the as-built conditions of the facility prior to FPL's acceptance of these documents.

Maintenance, distribution and control of the drawings and the Master Drawing List by FPL during the operation phase shall be assigned to a drawing custodian. Revision to drawings shall be approved prior to release by the drawing custodian, approval shall be by Nuclear Engineering, or a designated design organization.

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6.2.3 (Continued)

During the operation phase a system shall be established to provide ready access and availability of drawings to engineering and operations personnel; to identify drawings affected by approved plant design changes; and to update drawings and the Master Drawing List to reflect implemented design changes.

6.2.4 Design Documents Other Than Drawings

Ascertaining that proper design documents are accessible and are being used may be accomplished by periodic issuance of master document lists showing the latest applicable revision, or by a document receipting system.

6.2.~~4~~5 Instruction & Procedure Control

Participating organizations shall be responsible for development, maintenance and control of those documents identified in paragraph 6.2.1 issued by them as controlled documents. Each organization shall be responsible for the adequacy of their procedures.

6.2.~~5~~6 Obsolete Documents

Controls established by Quality Procedures and Quality Instructions shall assure that outdated copies of controlled documents are not inadvertently used.

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9.1 GENERAL REQUIREMENTS

Measures shall be established to assure that special processes such as welding, heat treating, and nondestructive examination, are controlled and accomplished by qualified personnel using qualified procedures and equipment in accordance with applicable codes, standards, specifications, criteria, and other special requirements.

9.2 IMPLEMENTATION

Nuclear Engineering or the delegated contractor organization, as appropriate, shall include special process requirements in their design outputs and changes thereto. Special processes used during plant operations shall be the responsibility of the plant manager, who shall ensure that procedures are developed, reviewed, approved and controlled, and that personnel and equipment are qualified.

9.2.1 Identification of Special Processes

Special processes are those processes which must be qualified and controlled where quality is highly dependent on close control of process variables or operator skills, and objective verification (inspection, examination or testing) of end quality is difficult.

As a further clarification, special processes identified as such by applicable codes and standards shall be controlled, qualified, and implemented in accordance with those codes and standards. Examples of special processes include (but are not limited to) welding, heat treating, and nondestructive examination. Others, i.e., flushing, protective coating, plating applications and nuclear cleaning should be reviewed to determine if they are special processes.

9.2.2 Procedure Qualification and Control

Process control procedures written by FPL organizations or their contractors shall be used and qualified as required by applicable specifications, codes, or standards.

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9.2.2 (Continued)

Where FPL assigns work to outside contractors, the contractors shall make their procedures and personnel qualifications available for review to FPL prior to the start of work. The Architect/Engineer, Nuclear Steam Supply System vendor, or other organization designated by FPL shall be responsible for the evaluation and acceptance of on-site contractor special process procedures, and shall interface with the appropriate FPL department, as necessary, to resolve review comments with the contractor. The contractor shall also be responsible for the control and approval of sub-contractor procedures.

9.2.3 Personnel Qualification and Certification

Procedures or instructions shall specify personnel qualification and certification requirements. Personnel responsible for the performance and verification of special processes shall be trained, tested, and certified as required by applicable specifications, codes and standards. Requirements for the period of certification, retesting, and recertification of personnel shall also be specified. Contractors shall qualify personnel and maintain records of qualified personnel in accordance with applicable codes, standards, specifications, and contract or procurement document requirements.

9.2.4 Special Process Records

The ~~Plant~~ Services Manager is responsible for t~~he review and~~ retention of records. **The Plant General Manager is responsible for the review of records.** Records shall provide objective evidence that special processes were performed in compliance with approved procedures by qualified personnel and equipment. Records shall also be maintained for verification activities when required by procedure, code or specification. Results of nondestructive examinations shall be recorded in accordance with applicable specifications, codes and standards. These records shall be retained by the vendor or supplied to FPL as required by contract or purchase orders. If records are to be retained by the vendor, the contract or purchase order shall specify the retention period and instructions for final disposition of such records.

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9.2.4 (Continued)

For backfit activities, the Quality Control organization is responsible for the review of nondestructive examination documents for acceptance. The Site Construction Services Manager is responsible for assuring that documents for special processes utilized for modifications are properly collected, reviewed, accepted and transmitted for retention of records.

INSPECTION

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10.1 GENERAL REQUIREMENTS

A program for inspection shall be established and executed by or for FPL to verify conformance with the documented instructions, procedures and drawings for accomplishing an activity. Such inspections shall be performed by individuals or groups other than those who performed the activity being inspected. Examinations, measurements and tests of materials or products processed shall be performed for each work operation, where necessary, to assure conformance to established requirements. If direct inspection of processed materials or products is impossible or disadvantageous, indirect control by surveillance or monitoring shall be provided. Mandatory inspection, witness, or hold points beyond which work shall not proceed without the consent of FPL or a designated representative shall be indicated in the appropriate documents.

10.2 IMPLEMENTATION

10.2.1 Inspection Responsibilities

For plant operations, maintenance, or modification activities, a program for on-site inspection of activities affecting quality shall be established by the Nuclear Assurance Department. Quality Control shall perform inspections, surveillance and monitoring of plant activities including operations, maintenance or modifications as required by established plans, schedules and/or procedurally required inspection, witness or hold points. In all cases, the personnel performing the inspection shall be independent of the group performing the work.

For these plant activities, the Nuclear Assurance Department may delegate the establishment and execution of this program to a contractor or other designated FPL representative, but shall retain ultimate responsibility for the program.

10.2.1 (Continued)

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For preoperational start-up and testing of plant modifications, Nuclear Division personnel may report functionally to the Site Construction Services Manager and establish plans, schedules and procedurally required inspection, witness or hold points. In all cases, the personnel performing the inspection shall be independent of the group performing the work.

~~The System Protection Group~~ **Protection & Control Systems** may perform inspections of equipment within their purview during operations. Inspections shall be performed in accordance with approved, written procedures by qualified personnel.

Quality Procedures and Quality Instructions shall be written which delineate the requirements and responsibilities for the performance of inspections.

10.2.2 Inspection Plans and Schedules

Documented inspection plans may be either a separate document or an integral part of work instruction documents. The plans shall be based on design specifications, procurement documents, drawings, other specifications or previous experience, as appropriate. Inspections shall be scheduled to assure that sufficient time and resources are available, and to assure inspections are not inadvertently omitted or bypassed.

10.2.3 Inspection Personnel

a. Inspections shall be performed by individuals other than those who performed or directly supervised the activity being inspected. Inspection personnel shall be qualified and certified in accordance with appropriate

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10.2.3 (Continued)

codes, standards and/or company training programs. Qualifications and certifications shall be kept current.

b. Prior to performing inspections, inspection personnel shall have access to the drawings, procedures, specifications or other documented criteria necessary for performance of the inspection.

10.2.4 Inspection Procedures

a. Required inspection, surveillance or monitoring activities shall be performed and documented according to written, approved instructions or procedures. Inspection procedures, instructions or checklists shall contain the following:

- Identification of characteristics to be inspected;
- Identification of the individual or groups responsible for performing the inspection;
- Acceptance criteria or reference to the acceptance criteria;
- A description of the method of inspection;
- Verification of completion and certification of inspection.

b. Inspection records shall identify:

- Inspector or data recorder;
- Method or type of observations;
- Test or inspection results;
- Statement of acceptability;
- Date of observation;
- Deficiencies and nonconformances, and the action taken in connection with these deficient conditions, either by inclusion or by reference to other documents.

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10.2.4 (Continued)

c. Inspection procedures shall be reviewed by QC personnel to determine the need for an independent inspection and the degree and method if such an inspection is required, and to assure the identification of inspection personnel and the method of documentation of inspection results.

d. Written approved instructions shall specify surveillance or monitoring of processing methods, or testing and operation of equipment when inspection is impossible, inaccessible or not applicable.

e. Modification, repair, replacement or rework items shall be inspected in accordance with original inspection requirements or acceptable alternatives.

10.2.5 Inspection, Witness, and Hold Point Identification

Appropriate inspection, witness or hold points shall appear in process documents (e.g., construction, testing, operating and maintenance procedures). These process procedures are subject to the review of the Quality Control organization for adequacy of inspection, witness, and hold points.

Mandatory hold points shall be identified in process documents ~~used~~ when witnessing and inspecting must be performed and signed-off by the responsible personnel before work can proceed. ~~before work can proceed.~~

FPL procurement documents shall indicate FPL witness or hold points applicable prior to, during, or after the manufacture of an item or the performance of a service ~~in procurement documents~~. A distinction shall be made between witness points and mandatory hold points.

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14.1 GENERAL REQUIREMENTS

Measures shall be established to indicate by the use of markings such as stamps, tags, labels, routing cards or other suitable means, the status of inspections and tests performed on material, equipment, or systems. These measures shall provide for the identification of items which have satisfactorily passed required inspections and tests. Measures shall also be established for indicating the operating status of structures, systems and components to prevent inadvertent operations.

14.2 IMPLEMENTATION

14.2.1 General

For operations activities, the Nuclear Division is responsible for establishment and maintenance of a suitable system for identifying the inspection, test, and operating status of materials, equipment, systems, and components. For plant modifications assigned to Nuclear Construction Services Department or when requested by the Plant General Manager, the Site Construction Services Manager is responsible for establishing a suitable system for identifying, inspecting and testing for material, equipment, systems and components which is approved by Nuclear Operations. Each system shall be established, implemented and maintained in accordance with written Quality Procedures and Quality Instructions. The Architect/Engineer or Contractors shall develop and implement procedures to comply with contractual responsibilities, and applicable codes, standards, specifications, and criteria governing the status identification of procurement items being tested, installed, or fabricated. The Architect/Engineer (where applicable), suppliers and contractors shall be required to maintain a system for identifying the inspection, test and processing status of materials, parts, and components. Elements of this system require that suppliers and contractors have a controlled manufacturing and test operation in order to preclude the inadvertent bypassing of processing, inspections or test, and to provide a positive identification of component status throughout all phases of manufacturing, testing, and inspecting, by means of tagging, routing cards, stamping, manufacturing or test reports,

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14.2.1 (Continued)

labeling or other appropriate methods. The Vice Presidents - Turkey Point or St. Lucie and the Quality Assurance Department shall verify adequacy of the controls established and implemented, as appropriate for their site.

14.2.2 Status Identification and Control

Quality Procedures and Quality Instructions shall describe control of the application and removal of markings such as stamps, tags, labels, routing cards, and other suitable means to indicate the status of non-operational, nonconforming, or malfunctioning nuclear safety related structures, systems and components to prevent inadvertent operation, and to prevent omission of inspections, tests, or other critical operations. These procedures and instructions shall delineate the requirements, methods and responsibilities for indicating the status of the affected items. These procedures will clearly delineate the individuals or groups responsible for application and removal of status indicators.

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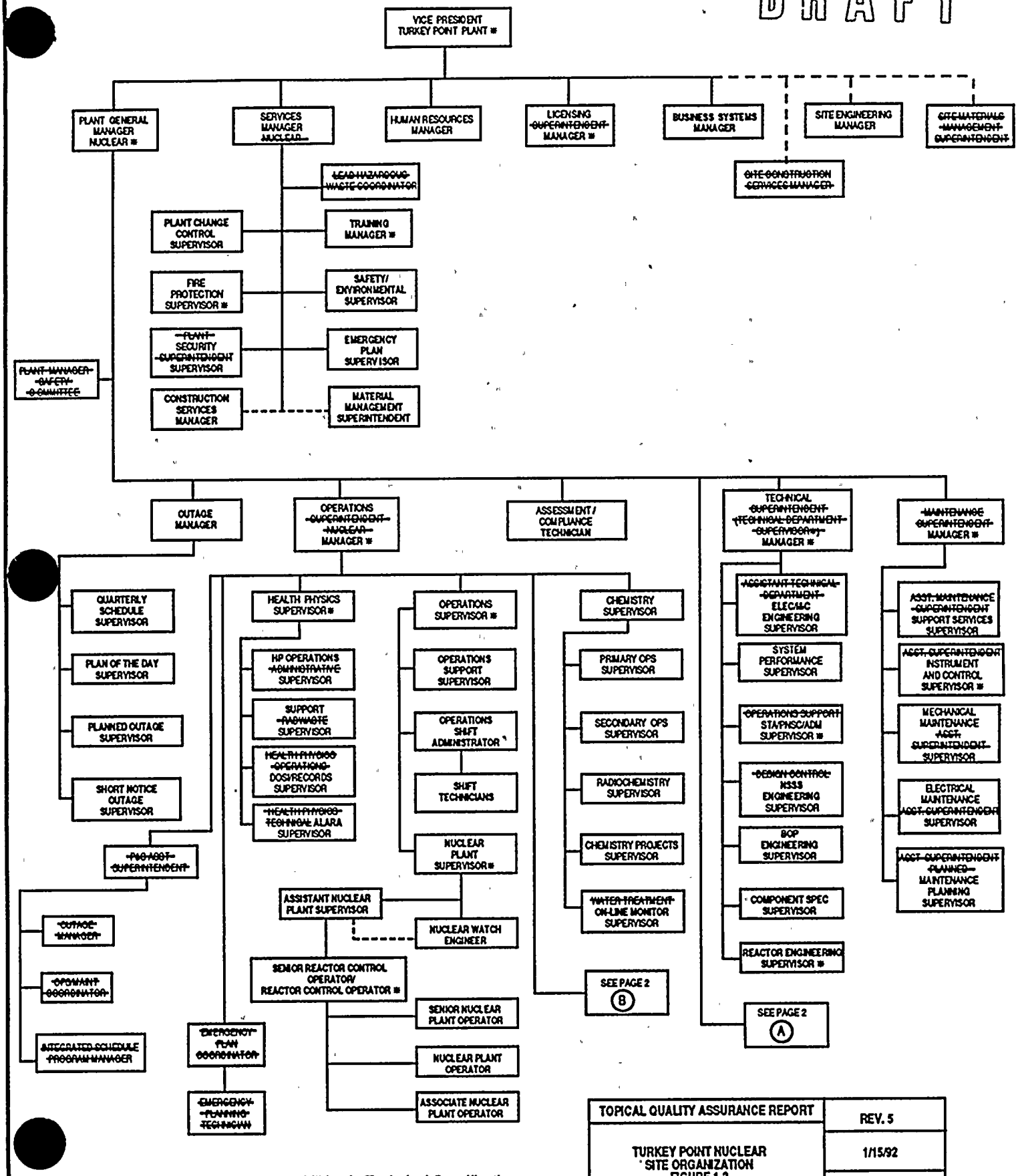

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* - Indicates position with accountabilities in Technical Specifications.

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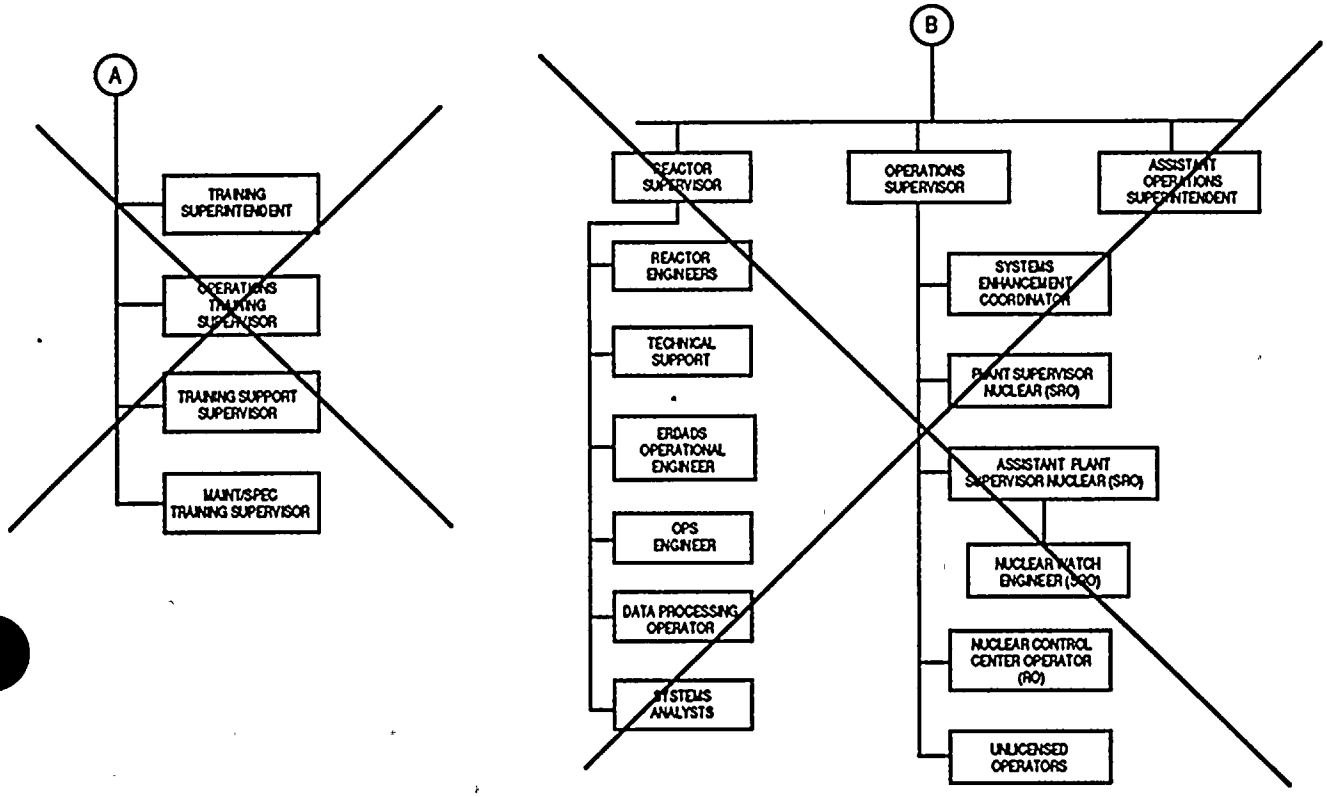

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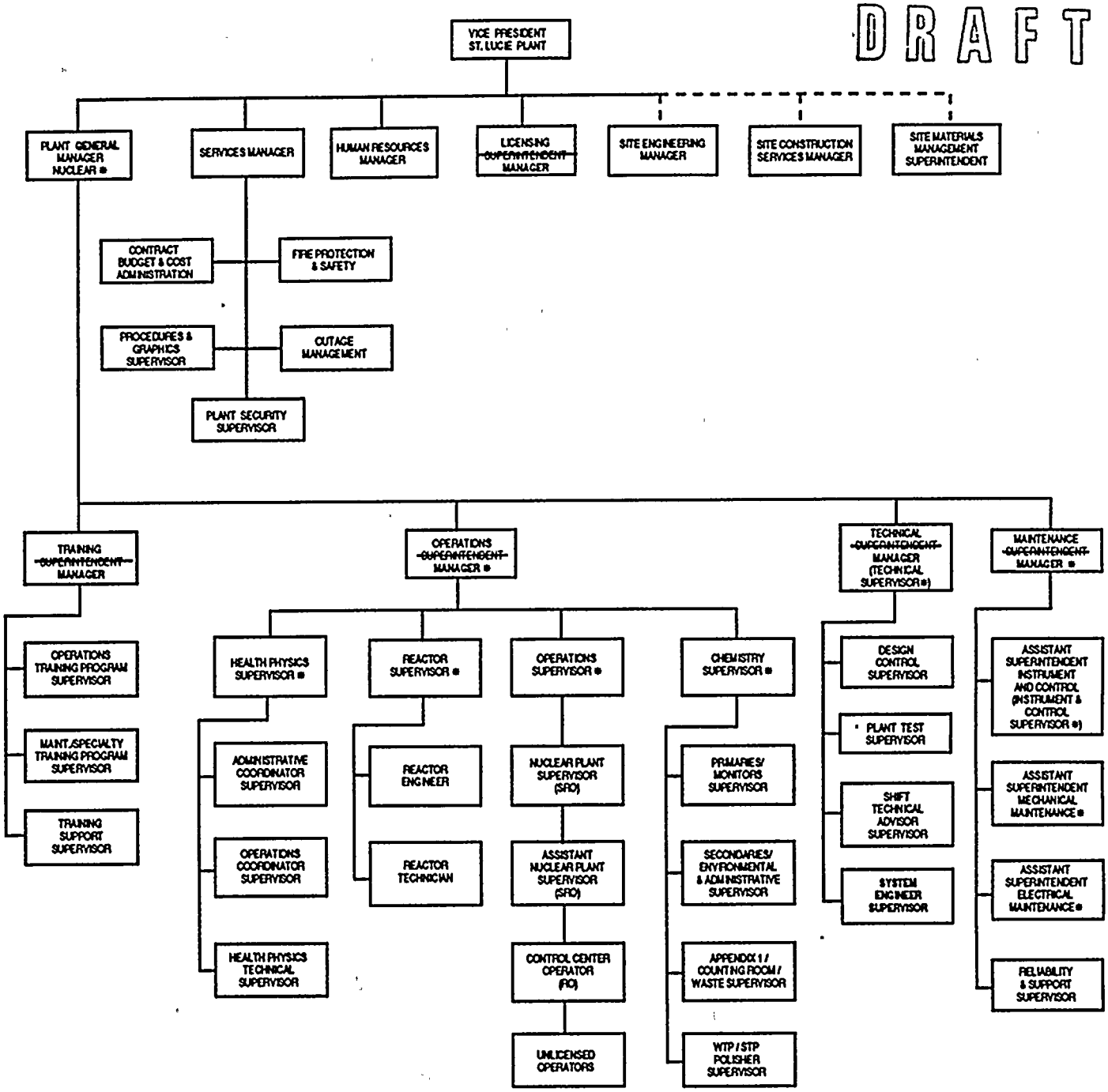

TOPICAL QUALITY ASSURANCE REPORT	REV. 6
ST. LUCIE PLANT, UNITS 1 & 2 SITE ORGANIZATION FIGURE 1-3 APPENDIX A	01/15/92
	PAGE 1 OF 1

* - Indicates position with accountabilities in Technical Specifications. Where multiple titles occur, the first position listed shall act in the capacity of the other listed titles.

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This topical report contains the program requirements for Florida Power & Light Company's Quality Assurance Program. The Quality Assurance Program is described in detail in the Florida Power & Light Company Quality Assurance Manual.

The Regulatory Guides, codes, and standards specifically listed in the matrix of this appendix (on page 2) represent the baseline documents used in the preparation of FPL's QA Manual and this topical report. These documents, therefore, provide the basis for the FPL QA Program, but they are not considered to be part of the QA Program unless specifically addressed in the applicable SAR, technical specifications, etc.

The FPL Quality Assurance Program meets the requirements of the documents referenced in this appendix. Any alternatives or clarifications made to the requirements contained in these documents are stated on pages subsequent to the second page of this appendix.

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GOVERNMENT DOCUMENT	DATED	REFERENCE INDUSTRY STANDARD	DRAFT REV. ISSUED DATE
10 CFR PART 50, APPENDIX B	2/19/75	ANSI-N45.2	1971
10 CFR PART 50.55a		ASME B&PV Code Section III & XI	Specified in the SAR document of the respective plant
Regulatory Guide 1.8 Rev. 1	9/75	ANSI-N18.1 ANSI/ANS 3.1	1971 1978
Regulatory Guide 1.28	6/7/72	ANSI-N45.2	1971
Regulatory Guide 1.30	8/11/72	ANSI-N45.2.4	1972
Regulatory Guide 1.33 Rev. 2	2/78	ANSI-N18.7	1976
Regulatory Guide 1.37	3/16/73	ANSI-N45.2.1	1973
Regulatory Guide 1.38 Rev. 2	5/77	ANSI-N45.2.2	1972
Regulatory Guide 1.39 Rev. 2	9/77	ANSI-N45.2.3	1973
Regulatory Guide 1.58 Rev. 1	9/80	ANSI-N45.2.6	1978
Regulatory Guide 1.64 Rev. 2	6/76	ANSI-N45.2.11	1974
Regulatory Guide 1.74	2/74	ANSI-N45.2.10	1973
Regulatory Guide 1.88 Rev. 2	10/76	ANSI-N45.2.9	1974
Regulatory Guide 1.94 Rev. 1	4/76	ANSI-N45.2.5	1974
Regulatory Guide 1.116	6/76	ANSI-N45.2.8	1975
Regulatory Guide 1.123 Rev. 1	7/77	ANSI-N45.2.13	1976
Regulatory Guide 1.144 Rev. 1	9/80	ANSI-N45.2.12	1977
Regulatory Guide 1.146	8/80	ANSI-N45.2.23	1978

Florida Power & Light Company position regarding conflicting guidance and exceptions:

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TQAR Appendix C Clarification, ANSI/ANS 3.1 - 1978 (PSL-2)

The Regulatory Guides and industry standards listed in Appendix C to the Topical Quality Assurance Report take precedence over any Regulatory Guide or industry standard which may be referenced in any one of these documents.

Regulatory Guide 1.8, Rev. 1, ANSI N18.1-1971, ANSI/ANS 3.1 (PSL-2)

ANSI N18.1 describes the training and education requirements for plant staff positions and is endorsed by Reg. Guide 1.8 with an exception. That exception is the requirements for the Supervisor - Radiation Protection. ANSI N18.1 is invoked by Technical Specifications (Appendix A of the Facility Operating License) at the Turkey Point plants and PSL-1. ANSI/ANS 3.1-1978 is invoked by Technical Specification at PSL-2. Reg. Guide 1.8 is also invoked by Technical Specifications at our St. Lucie plant and a license amendment has been approved for our Turkey Point plant to specify the Health Physics Supervisor qualifications addressed in Reg. Guide 1.8.

To avoid duplication of requirements, FPL will address Plant Staff Qualifications in only the Technical Specifications.

Regulatory Guide 1.30/ANSI N45.2.4-1972

ANSI N45.2.4-1972, Paragraph 2.3 addresses installation specifications and requires the inclusion of inspection and test objectives. FPL maintains that test values and inspection scope are inherently contained in the applicable procedures.

ANSI N45.2.4-1972, Paragraph 6.1.2 requires that the inspection of installed equipment verify that "good and proper workmanship" has prevailed. FPL maintains that acceptable parameter compliance with codes and standards along with company preference is the verification of "good and proper workmanship".

ANSI N45.2.4-1972, Paragraph 6.2.1 requires that "Items requiring calibration shall be tagged or labeled on completion indicating date of calibration and identity of person that performed the calibration." In lieu of tagging or labeling equipment, FPL has chosen to control calibration of installed instrumentation and control equipment by maintaining records for each piece of equipment by instrument tag number (or equivalent) to show that established schedules and procedures for calibration have been followed.

Regulatory Guide 1.33, Rev. 2, ANSI N18.7 - 1976

FPL's method of addressing Paragraphs 4.0, 5.2.2, 5.2.15 and 5.3 of ANSI 18.7 - 1976 as modified by Regulatory Guide 1.33, Rev. 2 is covered in Section 6 of each individual plant's Technical Specifications.

ANSI N18.7-1976, Section 4.3, requires that personnel performing the independent review and audit be specified in number and technical discipline. This standard is invoked by the Technical Specifications (Appendix A of the Facility Operating Licenses) which have been approved for the FPL nuclear plants at St. Lucie and Turkey Point. Specifically this function is performed by the Company Nuclear Review Board (CNRB) identified in Section 6.5.2 of the Technical Specifications.

To avoid duplication of requirements, FPL will address the personnel and functions of this independent review and audit only in the Technical Specifications.

FPL's method of addressing Section 5.2 of ANSI N18.7-1976, as modified by Regulatory Guide 1.33, Rev. 2, is by administratively controlling licensed operator hours on shift and by our Duty Call Supervisor system. Further, FPL has developed a response to NUREG 0654 which provides staffing availability.

FPL's method of addressing Paragraph 5.2.8 of ANSI N18.7-1976, as modified by Regulatory Guide 1.33, Rev. 2, is covered in Section 4 of each plant's Technical Specifications.

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FPL's method of addressing Paragraph 5.2.9 of ANSI N18.7-1976, as modified by Regulatory Guide 1.33, Rev. 2, is covered in 10 CFR 73 and each plant's Security Plan, and as such is not included in the Quality Assurance Program.

Chemical cleaning is not presently controlled as a special process per se; however, the requirements of ANSI N45.2.1-1973 and Regulatory Guide 1.37 dated 3/16/73 are part of the FPL QA Program and are met in our program. FPL proposes these requirements to be an alternative to the requirements of ANSI N18.7-1976, Paragraph 5.2.18. Further, TQR 9.0, Paragraph 9.2 explains the review of potential special processes and determination of their status as special processes.

FPL meets the intent of Section 5.2.19.3 of ANSI N18.7-1976 as modified by Regulatory Guide 1.33, Rev. 2, as applied to significant changes to operating procedures, by the technical review of the procedure change by knowledgeable plant professionals, by the safety review of the procedure change by the on-site facility review group, by the regulatory and QA review of the procedure by plant Quality Control, by training the licensed operators in the change through the training report system, and by trained, licensed operators using the revised operating procedure and observing the proper result. In addition, procedure changes will be reviewed to assure 10 CFR 50.59 requirements are met.

Paragraph 5.3.5(4) - Clarification - When FPL uses vendor manuals and drawings which provide adequate instructions for maintenance, these documents are attached or referenced with Plant Work Orders which are reviewed and approved by Supervisory and Quality Control personnel and are considered to be adequate procedures in themselves. These vendor manuals and drawings, when received at site, are controlled documents and changes to the applicable sections and instructions of these documents require the same level of review and approval as the operating procedures.

Appendix A of Regulatory Guide 1.33 lists "typical safety related activities which should be covered by written procedures". Regulatory Guide 1.33 is invoked by the Technical Specifications at FPL Nuclear Plants.

In order to avoid duplication of requirements invoked in our licensing documents, the FPL Quality Assurance Program does not list those required operating procedures specified in Appendix A.

Regulatory Guide 1.37/ANSI N45.2.1-1973

ANSI N45.2.1-1973, Paragraph 5 states in part that, "Fitted and tackwelded joints (which will not be immediately sealed by welding) shall be wrapped with polyethylene or other non-halogenated plastic film until the welds can be completed". The FPL QA Manual shall require that the weld be covered to prevent entry of moisture and contaminants but will not specify the material to be employed. Materials employed to cover openings shall meet the requirements of Regulatory Guide 1.37, Position 4.

ANSI N45.2.1-1973, Paragraph 7.1 states in part, "provisions shall be made to collect leakage and protect insulation from being wetted". FPL Quality Assurance Program includes the above requirements. However, FPL's program allows the wetting of metallic type insulations which are not adversely affected by wetting.

ANSI N45.2.1-1973, Paragraphs 7.2.2, 7.2.3, and 7.3 address specific cleaning methods (Alkaline, Chelate, Acid) and make recommendations associated with several types of cleaning methods. FPL's QA manual does not specifically delineate these paragraphs. However, the procedure developed per Paragraph 2.2 of ANSI N45.2.1 will ensure that any specific cleaning method chosen will be properly considered and controlled.

Regulatory Guide 1.38, Rev. 2/ANSI N45.2.2 - 1972

FPL will meet the requirements of Reg. Guide 1.38, Rev. 2, Position 2C, D and E for safety related applications during preoperational and operational activities. Restrictions imposed for tapes to be color contrasting will only be applied to the extent that these colors are dissimilar or otherwise distinguishable. This does not preclude using other tapes when precautions are taken to ensure these tapes do not come in contact with austenitic stainless steel or nickel alloy materials.

Vapor barrier material (other than metal) shall be colored to contrast with or be otherwise distinguishable from safety related systems to prevent undisclosed entry into the system.

These requirements do not apply to components in storage which would require removal of such tapes and barriers to effect installation.

ANSI N45.2.2-1972 Section 2.7 requires that items governed by this standard be classified into one of four levels by the buyer or the contractor. FPL intends to consider what care is appropriate for each item individually rather than generically classifying the material into protection levels and providing care required of that level. The following shall be considered when determining the handling, storage, and shipping requirements:

1. The vendor's recommended handling, shipping, and storage standards.

2. Environmental requirements which may include such requirements as inert gas atmosphere, humidity limits, temperature limits, chemical requirements, acceleration (g force) requirements.

3. Special tools or equipment which are provided and controlled as necessary to ensure safe and adequate handling. These tools or equipment shall be inspected and tested at specified times to verify that they are adequately maintained.

4. Packaging, covering or coatings required to meet environmental requirements such as barrier and wrap material, desiccants, pipe caps, plugs, contact preservatives, etc.

5. Container, crating, skids of sufficient strength to support the item (including stacking).

6. Cushioning, blocking, bracing, and anchoring to prevent movement during shipment or handling.

7. Special handling or storage procedures for unique situations.

8. Marking and identification of the item and its packaging.

9. Anticipated "shelf life" of the item.

FPL considers this to be a more effective approach since the quantity of spare and replacement material, parts and components governed by this standard will be afforded protection commensurate with the recommendations of Section 2.7 of this standard.

ANSI N45.2.2-1972 Sections 3.0, 4.0, and the Appendix address all the requirements applicable to the packaging and shipping of material. FPL in general does not package or ship material governed by this standard. Suppliers of material are required by purchase order to provide adequate packaging and shipping protection. Isolated cases of material packaging or shipping are treated on a case-by-case basis and receive protection comparable to that required by the manufacturer of that material. Loading, rigging and handling precautions identified in Section 4.3 are applied to material unloaded by FPL from a transport vehicle.

ANSI N45.2.2-1972 Section 5.2 requires that specific attributes of material and components received by FPL be inspected. For plants with operating licenses FPL verifies conformance to procurement documents during receipt inspections. Any of these attributes identified in these procurement documents are verified during this inspection.

ANSI N45.2.2-1972 Section 5.2, paragraph 5.2.1, requires certain preliminary inspections to be done "prior to unloading" of material which is received. We believe that the sequence specified in the standard is to facilitate commercial claims, and should these preliminary inspections occur "after unloading" that control of materials quality would not be degraded. Accordingly, required shipping damage inspections may be performed after unloading.

The requirements of ANSI N45.2.2, Paragraph 7.2 for items that require special handling instructions is clarified by FPL to be limited to those items covered in the scope of NUREG 0612, entitled "Control of Heavy Loads at Nuclear Power Plants".

ANSI N45.2.2-1972, Paragraph 7.4 requires that an inspection program be established for handling equipment and rigging, including methods for identifying acceptable and nonconforming items. In lieu of having a program of periodic, documented inspections of rigging and handling equipment, FPL's practice is to have the individual user determine the equipment's acceptability prior to each use. This prior-to-use inspection is exactly the same as that required during periodic inspections, and uses criteria identified in ANSI N45.2.2-1972, paragraph 7.4. This practice also precludes the need for a system to indicate the acceptability of rigging and handling equipment. Implementation of this prior-to-use inspection will be assured through periodic surveillances and audits performed by Quality Assurance and Quality Control. Cranes are inspected on a periodic basis and will not be subjected to this prior-to-use inspection.

Certain mechanical components of the PSL-2 nuclear unit have been designed for a service environment of the site area because portions of the plant are exposed to the temperature, humidity, and ocean salt spray during operations. Extreme air temperature variations, snow or slush are not encountered during operations or in the out-of-doors storage environment. As an alternative to the rigid requirements of storage levels B and C in paragraph 6.1 of ANSI N45.2.2-1972, FPL proposes to store these particular mechanical components outdoors, but within controlled areas, with sufficient periodic surveillances and inspections to minimize the possibility of damage or lowering of quality due to corrosion, contamination, deterioration, or physical damage. In cases where special environmental conditions are present (i.e. hurricanes, paint sprays, concrete pours, etc.) precautions or additional steps will be taken to further protect the items.

Regulatory Guide 1.39, Rev. 2/ANSI N45.2.3-1973

For FPL's operating nuclear plants, alternative methods are followed to achieve equivalent objectives for the below listed sections of ANSI N45.2.3-1973:

The zone designations of Section 2.1 of N45.2.3 and the requirements associated with each zone are not consistent with the FPL Housekeeping requirements at our operating nuclear units. In lieu of the zone designation, cleanliness is maintained at a level consistent with the work being

performed, so as to prevent the entry of foreign material into safety related systems. Documented cleanliness inspections are performed immediately prior to system closure. Control of personnel, tools, equipment, and supplies is established with approved procedures when the safety function of a system, component, or item may be jeopardized and also while the reactor system is opened for inspection, maintenance, or repair.

Regulatory Guide 1.58, Revision 1/ANSI N45.2.6-1978

ANSI N45.2.6-1978, Paragraphs 1.1, 3.1, 3.2.2(a) and 4 (Table-1) identify requirements which apply to personnel who perform inspections, tests or nondestructive examinations or who participate in the approval of procedures, the handling of data or test results, or the control of reports and records.

FPL proposes an alternative to capability requirements for those who participate in: (1) the approval of procedures, (2) the handling of data or test results and (3) the control of reports and records. FPL accomplishes this by having personnel determined to be qualified and competent by management through consideration of education, training, and experience.

The Florida Power & Light Company position on the scope of ANSI N45.2.6-1978 is that personnel participating in testing who take data or make observations, where special training is not required to perform this function, need not be qualified in accordance with ANSI N45.2.6 but need only be trained to the extent necessary to perform the assigned function.

For leak testing conducted as part of the preoperational and operational testing programs, FPL considers that the qualification requirements of Regulatory Guide 1.8 (ANSI N18.1-1971) and ANSI N45.2.6-1978, Paragraph 3.0 to be an acceptable alternative to SNT-TC-1A-1975 requirements for leak testing, except for leak testing defined in and performed under Section III of the ASME Code, where in such cases, the Code shall govern.

For preoperational and operational inspection, examination and testing by Quality Control Inspectors, FPL considers that Position C.1 of Regulatory Guide 1.58, Revision 1 and ANSI N45.2.6-1978, Paragraph 3.0 are acceptable requirements for training and qualification, except for inspections, tests and examinations defined in and performed under Section III of the ASME Code, where in such cases, the Code shall govern.

For all other preoperational and operational inspection, examination and testing performed by operating plant and support personnel, FPL considers that training and qualification to the requirement of ANSI N18.1-1971 and Regulatory Guide 1.8 are sufficient for the type and scope of activities performed and that qualifications to ANSI N45.2.6-1978 is unnecessary and redundant. These preoperational and operational inspection, examination tests shall be supervised or directed by personnel qualified to Position C.1 of Regulatory Guide 1.58, Revision 1.

FPL shall comply with Position C.10 of Regulatory Guide 1.58, Revision 1, effective with Revision 4 of the Topical Quality Assurance Report, in that all new certifications issued for personnel shall meet the education and experience requirements or shall document objective evidence demonstrating that the individual indeed does have comparable or equivalent competence to that which would be gained from having the required education and experience.

FPL's position on ANSI N45.2.6-1978, Paragraph 2.3 is that an initial and periodic review (not to exceed two years) of personnel shall determine the capabilities in his qualified area. If during this review or at any other time, it is determined that the individual's capabilities are not in accordance with the specified requirements, that individual shall be removed from that activity until the required capability has been demonstrated. In addition, during this review a determination shall be made that an individual has been actively involved in the inspection process in his qualified area.

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Regulatory Guide 1.64, Rev. 2/ANSI N45.2.11-1974

FPL's exception to Regulatory Guide position C.2 is as follows:

Design verification shall be performed by technically qualified individual(s) or group(s) other than those who performed the design. The original designers and verifiers may both be from the design organization. Design verification by the designer's immediate supervisor shall be limited to those instances where the supervisor is the only qualified individual available within the design organization. These instances are further restricted to designs where the designs where the supervisor did not specify a singular design approach, or did not restrict design methods or alternatives, or did not specify design inputs (unless the specified design inputs have already been independently verified). Justification for verification by the designer's immediate supervisor should be documented along with the extent of the supervisor's involvement in the design.

ANSI N45.2.11-1974, Paragraph 11.4 requires that "audits shall include an evaluation of design quality assurance policies, practices, procedures and instructions . . . ." FPL's design quality assurance (and all other QA elements) policies, procedures and instructions are included in FPL's Quality Assurance Program documentation. The Quality Assurance Department evaluates all of this documentation in reviews performed during its development and revision. Accordingly, FPL does not require subsequent (and redundant) evaluations of these Quality Assurance Program policies, procedures and instructions during audits. FPL audits will include evaluations of the adequacy of the practices which are the implementation of these policies, procedures and instructions.

Regulatory Guide 1.68 (11/73)

Regulatory Guide 1.68 (11/73) entitled "Preoperational and Initial Start-up Test Programs for Water Cooled Power Reactors" is addressed in Section 14.2.1 of the St. Lucie Unit 2 FSAR which states in part, "The start-up test program is developed using the recommendations of Regulatory Guide 1.68". To avoid duplication of requirements, FPL will address Regulatory Guide 1.68 in the FSAR.

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Regulatory Guide 1.74/ANSI N45.2.10 - 1973

ANSI N45.2.10 - 1973 identifies terms and their definitions important to the uniform understanding of the intent of required quality assurance practices for the construction of nuclear power plants. Regulatory Guide 1.74 (2-74) endorses these terms and definitions and extends them through the operational phase and includes a clarification of procurement documents.

FPL has developed a glossary of terms and their definitions as part of the Quality Assurance Manual which is being used throughout its nuclear construction and operating plant activities.

The following definitions are currently listed in our glossary and are alternatives or clarifications to those listed in the ANSI Standard and Regulatory Guide:

Assembly	A combination of subassemblies or components or both, fitted together to form a workable unit.
Audit	A documented activity performed in accordance with written procedures or checklists to verify, by examination and evaluation of objective evidence, that applicable elements of the quality assurance program have been developed, documented and effectively implemented in accordance with specified requirements. An audit does not include surveillance or inspection for the purpose of process control or product acceptance.
Guidelines	Particular provisions which are considered good practice but which are not mandatory in programs intended to comply with Standards. The term "should" denotes a guideline; the term "shall" denotes a requirement; and the word "may" denotes permission, neither a requirement nor a recommendation.

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Inspector (Owner's or Installer's)	A qualified inspector employed by the Owner or Installer, whose duties include the verification of quality related activities on installations.
Inspection	Examination, observation, or measurement to determine the conformance of materials, supplies, components, parts, appurtenances, systems, processes, or structures to predetermined requirements.
Procurement Documents	Contractually binding documents, including such documents as contracts, letters of intent, work orders, purchase orders or proposals and their acceptances which authorize the seller to perform services or supply equipment, material, or facilities on behalf of the purchaser. **For control purposes, procurement requisitions are considered procurement documents in the context of this definition.**
Qualification (Personnel)	The characteristics or abilities gained through training or experience or both as measured against established requirements such as standards or tests that qualify an individual to perform a required function.
Quality Assurance	All those planned and systematic actions necessary to provide adequate confidence that a structure, system or component will perform satisfactorily in service. Quality Assurance includes quality control.

Quality Control	Those quality assurance actions related to the physical characteristics or material, structure, component or system, which provide a means to control the quality of the material, structure, component or system to predetermined requirements.
Storage	That period following the release of an item for shipment until turnover for start-up preoperational testing. This would include in-place storage.
System	An integral part of a nuclear power plant comprised of electrical, electronic, or mechanical components (or combinations thereof) that may be operated as a separate entity to perform a specific function.
Testing	Performance of those steps necessary to determine that systems or components function in accordance with predetermined specifications.

"Requirements" Clarification for Glossary

REQUIREMENT: A mandatory action, denoted by the word shall. (See "Guidelines") Requirements are generally based on statutes or regulations, but may be internally generated within the company. "Shall" is therefore used for both external, legally enforceable actions and internal requirements not enforceable under current NRC practices.

Regulatory Guide 1.88, Rev. 2/ANSI N45.2.9-1974

ANSI N45.2.9-1974, Section 3.2.5 requires Quality Assurance records be classified as lifetime or non-permanent and further defines lifetime and non-permanent in Section 2.2 of the Standard. FPL provides the following definitions as an alternative to the above.

Lifetime Records: Records which are required by the NRC facility operating license, the NRC construction permit, applicable parts of 10CFR, the FSAR, or other NRC commitments to be retained for the life of the plant.

Non-permanent Records: Records which are required by the NRC facility operating license, the NRC construction permit, applicable parts of 10CFR, the FSAR, or other NRC commitments to be retained for periods of time less than the life of the plant.

ANSI N45.2.9-1974, requirements for Section 5.6, "Facility", are clarified by FPL as follows:

QA records shall be stored in a manner as to protect contents from possible destruction by causes such as fire, flooding, tornados, insects, rodents, and from possible deterioration by a combination of extreme variations in temperature and humidity conditions.

A QA Record Storage Evaluation Team (QARSET) shall be responsible for determining methods utilized to assure that QA Records are adequately stored and protected.

The QARSET shall consist of the following: the Quality Manager - Juno Beach, the Loss Prevention Engineer, and the ~~Manager of Corporate Record Services~~ **Nuclear Records Official**, who shall be responsible for maintaining records of evaluations and establishing schedules to assure that reevaluations are performed every two (2) years. If necessary, the above QARSET Committee may delegate appropriate designees to serve as team members.

As part of their responsibility, the QARSET shall evaluate the status of existing facilities and the adequacy of additional records facilities prior to the construction of a new facility or the conversion of existing structures. Preferably, such evaluations should be performed during the design phase.

ANSI N45.2.9-1974 will be utilized in the evaluation of potential record storage facilities. Section 5.6 "Facilities" is modified as follows and shall be the basis for QARSET approved QA Record Storage Facilities.

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1. A 2-hour vault meeting NFPA No. 232 without additional provisions.

2. 2-hour rated fire resistant file room as defined in NFPA No. 232- 1980 if the following additional provision are provided:

   a. Early warning fire detection and automatic fire suppression shall be provided, with electronic supervision at a constantly monitored central station.

   b. Records shall be stored in fully enclosed metal cabinets. Records shall not be permitted on open steel shelving. No storage or records shall be permitted on the floor of the facility. Adequate access and aisle space shall be maintained at all times throughout the facility.

   c. Work not directly associated with records storage or retrieval shall be prohibited within the storage facility.

   d. Smoking and eating/drinking shall be prohibited throughout the records storage facility.

   e. Ventilation, temperature, and humidity control equipment shall be provided with approved fire dampers where they penetrate fire barriers.

3. Other conditions from the above may be approved by the QARSET if in their judgement the condition meets the established level of protection defined above.

There are two acceptable alternatives to the establishment of an approved QA record storage facility:

1. The maintenance of duplicate QA Records stored in separate locations which are not subject to the same destructive force at the same time.

2. The use of QARSET approved factory built record protection equipment, such as insulated record containers, fire-resistive safes, and insulated filing devices.

Where a specially constructed storage room is maintained to store the only copy of QA records, at least the following features should be considered in its construction:

(1) Reinforced concrete, concrete block, masonry, or equal construction.

(2) Concrete floor and roof with sufficient slope for drainage; if a floor drain is provided, a check valve (or equal) shall be included.

(3) Structure, doors, frames and hardware should be fire-rated with a recommended two hour minimum rating.

(4) Sealant applied over walls as a moisture or condensation barrier.

(5) Surface sealant on floor providing a hard-wear surface to minimize concrete dusting.

(6) Foundation sealant and provision for drainage.

(7) Forced-air circulation with filter system.

(8) Adequate fire detection and/or suppression system.

(9) No pipes other than those providing fire protection to the storage facility are to be located within the facility.

Regulatory Guide 1.116/ANSI N45.2.8-1975

ANSI N45.2.8-1975, Paragraph 2.3 requires that Measuring and Test Equipment (M&TE) used for inspection be identified on the Inspection Report. FPL may, as an option, employ a M&TE issue log which provides traceability between M&TE and the applicable inspections.

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ANSI N45.2.8-1975, Paragraph 4.6 addresses care of items to the extent that temporary use of equipment or facilities to which the standard applies that are to become part of the completed project may be desirable.

The following clarification applies to the above statement. For FPL plants in the construction phase (to the point of plant operation license) temporary use of equipment and facilities may be used according to need and/or situation. In this case, authorization for usage shall be provided along with all the documents, conditions, safeguards and evaluations to verify permanent plant equipment adequacy.

In the operations phase all equipment, including temporary equipment, is subject to identical controls to preclude adverse effects on safety and suitability for use.

Regulatory Guide 1.123, Rev. 1/ANSI N45.2.13-1976

ANSI N45.2.13-1976 Section 1.1 states that the extent to which the individual requirements of this standard will apply will depend upon the nature and scope of the work to be performed and the required quality of the items or services purchased. For commercial grade items, FPL has determined that certain aspects of the individual requirements of ANSI N45.2.13 need not apply. Commercial grade items are those (1) not subject to design or specification requirements that are unique to facilities or activities licensed by the NRC, and (2) used in applications other than facilities or activities licensed by the NRC, and (3) to be ordered from the manufacturer/supplier on the basis of specifications set forth in the manufacturer's published product description. These commercial items are subject to varying degrees of control as indicated in the FPL Quality Assurance Manual.

As a minimum, an evaluation is performed by qualified personnel to assure that the commercial item satisfies the necessary technical and quality requirements and the item is checked upon receipt to assure that the item received was the one ordered, damage was not sustained during shipment, and documentation, if required, was received.

ANSI N45.2.13-1976 Section 1.3 provides a definition of "procurement document" which is different from the definition contained in ANSI N45.2.10-1973 and Regulatory Guide 1.74. The Florida Power & Light (FPL) Quality Assurance Program uses the definition of "procurement document" ~~contained in ANSI N45.2.10-1973 as modified by Regulatory Guide 1.74~~ **listed in Appendix C which is an alternative to that listed in the ANSI Standard and Regulatory Guide.**

ANSI N45.2.13-1976 Section 3.3.a requires that procurement documents be reviewed prior to release for bid and contract award. The FPL Quality Assurance Program requires procurement document reviews prior to bid and contract award for all safety related purchases with the exception of these accomplished by "Confirming Purchase Order". A "Confirming Purchase Order" is an order which is initially placed verbally with the supplier and then later confirmed with a written Purchase Order. A "Confirming Purchase Order" is only used when time restraints would prohibit the normal review and approval cycle. The following controls are provided in the FPL Quality Assurance Manual to assure that the intent of ANSI N45.2.13 is satisfied for "Confirming Purchase Orders".

(1) Quality Assurance must be contacted prior to contacting the supplier to place the order unless it is an emergency purchase after normal working hours in which case Quality Assurance is contacted the next working day.

(2) Prior to verbally placing the order, it must be verified that the intended supplier is on the FPL Quality Assurance Approved Supplier List.

(3) The verbally placed order must be promptly-followed-up (confirmed) with a written procurement document which is subject to all reviews and approvals required for safety related purchases.

Section 8.2 of ANSI N45.2.13 identifies those nonconformances which shall be submitted to the Purchaser. Florida Power & Light's (FPL) position regarding the nonconformances to be reported is as follows. Suppliers (including A/E's and Contractors) shall submit all nonconformances which consist of one or more of the following:

1) Technical or material requirements are violated.
2) Requirement in supplier documents which have been approved by the Purchaser is violated.
3) Nonconformances which would affect the quality of the item in regard to function of safety related features. In cases where the supplier cannot make this determination, they shall be submitted to the Purchaser for evaluation.

This policy assures that all nonconformances affecting safety related functions will be reviewed and approved by FPL. In all cases, the supplier's documentation on nonconformances is available for FPL's review.

Regulatory Guide 1.144, Rev. 1/ANSI N45.2.12-1977

Regulatory Guide 1.144, Positions C.3 a&b, states in part that applicable elements of an organization's Quality Assurance Program should be audited at least annually or at least once within the life of the activity, whichever is shorter.

ANSI N18.7-1976/ANS-3.2, Paragraph 4.5 (endorsed by Regulatory Guide 1.33 Revision 2) states in part; "Audits of selected aspects of operational phase activities shall be performed with a frequency commensurate with their safety significance, and in such a manner as to assure that an audit of safety related functions is completed within a period of two years."

FPL has chosen a two year cycle for auditing elements of the internal and on-site QA Program during the operation phase of plant life following initial fuel loading. FPL's position is that the two year cycle: (1) allows more in-depth and meaningful audits in each regularly scheduled area, (2) permits more audits of ongoing activities, and (3) in conjunction with the planning and scheduling requirement of TQR 18.0 provides for a comprehensive audit program. The audit frequency requirements of Regulatory Guide 1.144 will be followed during other plants' phases.

In the case of suppliers, an annual evaluation of quality performance history shall be performed to determine reaudit requirements. Reaudit requirements for suppliers shall be based on the quality performance, and the complexity and criticality of the equipment or service being procured.

ANSI N45.2.12, Paragraph 4.3.1 states: "A brief pre-audit conference shall be conducted at the audit site with cognizant organization management. The purpose of the conference shall be to confirm the audit scope, present the audit plan, introduce auditors, meet counterparts, discuss audit sequence and plans for the postaudit conference, and establish channels of communication." FPL will not require the pre-audit conference for audits of limited scope and of specific site activities conducted by the Construction and Operations Groups. This conference is omitted because the day-to- day contact of the auditors and plant management, the awareness on the part of plant management that these audits are conducted without pre-audit conferences, and the limited scope of the audits meet the intent of a pre-audit conference.

ANSI Standard N45.2.12-1977, Paragraph 4.5.1 states in part "The audited organization shall provide a follow-up report stating the corrective action taken and the date corrective action was completed". The FPL QA Program requires the QA Department to followup on all action taken by the audited department. This is documented on the corrective action followup form by the QA Department and closed by the QA Department instead of the audited department. This assures that all actions taken by the audited department are verified by the QA Department and that the QA Department concurs with the resolution. We feel that it is appropriate for this to be documented by the QA Department instead of the audited department.

Planning Clarification

ANSI N45.2.4-1972, Paragraph 2.1; ANSI N45.2.6-1973, Paragraph 2.1;
ANSI N45.2.13-1976, Paragraph 7.2; ANSI N18.7-1976/ANS 3-2, Paragraph 5.2.7.1; ANSI N45.2.8-1975, Paragraph 2.1 and Paragraph 2.2 include plans and/or planning as required.

The terms plan and/or planning are included in FPL's activities as indicated in the following clarification:

Planning is considered to be a management process or analytical tool used as an aid to help develop identification and/or development of program requirements, implementation activities, assignments and staffing, inspections, surveillances and audits, controls and other activities to assure completeness of the requirements. Planning, as such, is not always documented nor addressed as an end item and is considered to be an integral "process" within the developed item.

Plans which are considered to be end type or output type documents have the term "plan" in the title, such as ISI Master Plan, Audit Plan, Start-up Plan, and others, which as such will reflect directly the requirement of these standards in the appropriate documents.

Plans which are not considered to be end type or output type documents do not have the word plan in the title. However, certain procedures, instructions, flow charts, schedules and checklists may be considered to be plans reflecting planned actions which especially require step-by-step accomplishments. In these cases, the term plan may not appear in the title but considered to be a plan only in the indirect sense and identified as a procedure or other document. FPL considers the above practice to be in compliance with the "plan" requirements of these standards.

LIST OF CORPORATE QUALITY ASSURANCE PROCEDURES

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OP NUMBER/TITLE	SECTION DESCRIPTION
1.1 CANCELLED	
2.1 CANCELLED (Terms and Definitions contained in the QA Manual Glossary)	
2.2 REVISION OF THE TOPICAL QUALITY ASSURANCE REPORT	Provides instructions for the revision of the Florida Power & Light Company Topical Quality Assurance Report (FPL TQAR).
2.3 QUALITY ASSURANCE PROGRAM REVIEW	Describes the instructions and methods used for establishing, preparing, issuing, revising and controlling Quality Procedures employed in supporting quality requirements.
2.4 PREPARATION AND REVISION OF QUALITY INSTRUCTIONS	Provides the responsibilities, guidelines and methods used for developing and revising Quality Instructions, based upon QP's, that involve quality activities within a department or organization and are unique to that activity.
2.5 QUALITY ASSURANCE INDOCTRINATION AND DEPARTMENTAL TRAINING	Describes the requirements for the indoctrination and training of personnel who perform, or are responsible for activities that affect quality.
2.6 CANCELLED	
2.7 IDENTIFICATION OF SAFETY RELATED STRUCTURES, SYSTEMS, AND COMPONENTS	Describes the development and approval of documents identifying safety related and safety related design feature structures, systems and components.
2.8 CLEANLINESS CONTROL METHODS	Provides criteria for securing good housekeeping. Assigns responsibilities for assuring that the cleanliness of material, systems and structures is maintained.

DRAFT

OP NUMBER/TITLE	SECTION DESCRIPTION
2.9 QUALIFICATION OF QA AUDIT, QC INSPECTION, ~~INSPECTION AND~~ CONSTRUCTION & POWER SUPPLY TEST PERSONNEL	Describes the personnel ~~qualifctaions~~ qualifications that are required to assure that compe~~n~~tent QC inspectors, QA auditors, ~~and~~ construction and power supply test personnel perform these respective functions.
2.10 HOUSEKEEPING FOR OPERATING PLANTS	Describes the responsibilities and controls for housekeeping at operating nuclear power plants.
2.11 CANCELLED	
2.12 FPL QA PROGRAM APPLICABILITY FOR FIRE PROTECTION SYSTEMS	Identifies the applicability of the Quality Assurance Program for Fire Protection Systems.
2.13 PROCESSING OF NRC CORRESPONDENCE	Describes the system for providing responses to NRC initiated action requests.
2.14 IMPLEMENTATION OF ASME XI	Describes the program and responsibilities for controlling activities defined by ASME Section XI.
2.15 CONTROL OF COMPUTER SOFTWARE	Specifies basic requirements for control of the lifecycle of computer software on mainframe, stand-alone, and PC computers.
2.17 ENVIRONMENTAL QUALIFICATION (EQ) OF ELECTRICAL EQUIPMENT	Delineates the responsibilities and requirements for maintaining the environmental qualifications of nuclear plant components.
3.1 CANCELLED	

LIST OF CORPORATE QUALITY ASSURANCE PROCEDURES

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OP NUMBER/TITLE	SECTION DESCRIPTION
3.2 IDENTIFICATION AND CONTROL OF DESIGN INTERFACES	Describes measures employed for identifying and controlling design interfaces, changes in design interfaces, and modifications that affect documents.
3.4 PLANT CHANGES AND MODIFICATIONS FOR OPERATING PLANTS	Establishes measures for controlling design changes or modifications in operating nuclear power plants.
3.5 DESIGN CONTROL AT THE CONSTRUCTION SITE	Defines the responsibilities and methods employed for the initiation, review, evaluation, approval and disposition of field initiated design changes and miscellaneous design documents such as field sketches and isometrics.
3.6 CONTROL OF FPL ORIGINATED DESIGN	Covers the preparation, review, and approval of design input documents,. design analysis specifications, and design verification for safety related design work originated by FPL.
3.7 EVALUATION AND CONTROL OF CONTRACTOR DESIGN FOR NUCLEAR FUEL AND RELATED SYSTEMS	Describes the evaluation and control of contractor designs for fuel related components and analysis.
4.1 CANCELLED	
4.2 CANCELLED	
4.3 CANCELLED	
4.4 CANCELLED	

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OP NUMBER/TITLE	SECTION DESCRIPTION
4.5 CANCELLED	
4.6 PROCUREMENT CONTROL	Delineates the sequence of actions in the preparation, review, approval, and control of procurement documents.
5.1 OPERATING PLANT PROCEDURES	Describes measures which ensure that instructions and procedures used in operating plants are identified, prepared, reviewed, approved, issued and revised in accordance with regulatory and FPL requirements.
5.2 BACKFIT PROCEDURES	Describes the generation, review and control of backfit procedures.
6.1 CONTROL OF CONSTRUCTION PROJECT CONTRACTOR DRAWINGS, SPECIFICATIONS AND PROCEDURES	Defines responsibilities and methods for the control and issue of contractor drawings, specifications and procedures to be used during the construction phase of nuclear power plants.
6.2 CONTROL OF DOCUMENTS ISSUED BY FPL	Instructions are provided for controlling documents issued by FPL which prescribe activities affecting the quality of safety related items.
6.3 CANCELLED	
6.4 CANCELLED	
6.5 CANCELLED	
6.6 DRAWING CONTROL FOR OPERATING NUCLEAR POWER PLANTS	Describes the method to be used for controlling and updating nuclear safety related drawings for operating plants after turnover from the design organization.

LIST OF CORPORATE QUALITY ASSURANCE PROCEDURES

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OP NUMBER/TITLE	SECTION DESCRIPTION
6.7 CONTROL OF VENDOR MANUALS AND VENDOR TECHNICAL INFORMATION	Establishes requirements for controlling technical manuals for operating, maintenance and test equipment.
7.1 RECEIPT INSPECTION OF MATERIALS, PARTS AND COMPONENTS AT THE PLANT SITE	Provides instructions for receipt inspection of materials, parts and components which have been obtained for use in nuclear safety applications at the operating plant site.
7.2 CANCELLED	
7.3 CANCELLED	
7.4 EVALUATION OF SUPPLIERS OF SAFETY RELATED ITEMS OR SERVICES	Provides standards, measures, and guidelines for the evaluation of QA Programs of contractors or suppliers supplying items or services.
7.5 CANCELLED	
7.6 ACCEPTANCE OF ITEMS AND SERVICES	Describes the responsibilities and requirements for accepting nuclear safety related items or services that are being procured for nuclear power plants.
7.8 CANCELLED	
7.9 CONTROL OF ON-SITE ~~VENDOR~~ SERVICES	This procedure provides a system to assure that vendors who provide on-site services by contract or purchase order to FPL at nuclear power plants are controlled.
8.1 IDENTIFICATION AND CONTROL OF MATERIALS, PARTS, AND COMPONENTS AT THE PLANT SITE	Delineates measures for assuring traceability, identification and control of items from the time they are received through usage at operating plants.

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OP NUMBER/TITLE	SECTION DESCRIPTION
8.2 CANCELLED	
9.1 CONTROL OF SPECIAL PROCESSES	Delineates the responsibilities of organizations and personnel, and the control and documentation of special processes that are applied to safety related items.
9.2 CANCELLED (Combined with 9.1)	
9.4 CONTROL OF WELDING FOR NUCLEAR POWER PLANTS	Delineates responsibilities and requirements for control FPL welding processes for nuclear power plants.
10.1 CANCELLED	
10.2 CANCELLED	
10.3 INSPECTION AND SURVEILLANCE	Delineates responsibilities and requirements for the inspection and surveillance of safety related plant maintenance activities, operation of safety related systems, and fuel handling activities.
10.4 CANCELLED	
10.5 CANCELLED	
10.6 CANCELLED	
11.1 CANCELLED (Combined with 11.4)	
11.2 CANCELLED (Combined with 11.4)	

LIST OF CORPORATE QUALITY ASSURANCE PROCEDURES

DRAFT

OP NUMBER/TITLE	SECTION DESCRIPTION
11.3 CANCELLED (Combined with 11.4)	
11.4 TEST CONTROL	Defines the measures for control of proof tests prior to installation, construction tests, preoperational tests, startup tests, operational tests and retests following repairs, replacements or modifications for nuclear safety related systems, structures, and components.
12.1 CALIBRATION AND CONTROL OF MEASURING AND TEST EQUIPMENT	Delineates the responsibilities for implementing the described program for maintenance, calibration and control of measuring and test equipment (M&TE).
12.2 CALIBRATION CONTROL OF INSTALLED PLANT INSTRUMENTATION AND CONTROL EQUIPMENT	Describes the calibration program, delineates responsibilities, and establishes procedures for control over the calibration of install instrumentation and plant control equipment.
13.1 HANDLING, STORAGE AND SHIPPING OF MATERIALS, PARTS AND COMPONENTS	Establishes responsibilities and procedures to assure that measures are employed by FPL and contractors to: (1) control the handling, shipping and storage of material; (2) protect the quality of material by using proper handling, shipping, and storage techniques; (3) effectively control the disposition of discrepant items.
13.2 CANCELLED	
13.3 CANCELLED (Combined with 13.1)	
14.1 CANCELLED (Combined with 14.3)	

LIST OF CORPORATE QUALITY ASSURANCE PROCEDURES

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QP NUMBER/TITLE	SECTION DESCRIPTION
14.2 CANCELLED (Combined with 14.3)	
14.3 INSPECTION, TEST AND OPERATING STATUS DURING PLANT OPERATION	Defines the measures and responsibilities for the identification of the inspection, test and operating status of structures, systems, and components.
15.1 CANCELLED (Combined with 15.2)	
15.2 CONTROL OF NONCONFORMING ~~PARTS OR~~ MATERIALS, PARTS, ~~AND~~ COMPONENTS AND SERVICES	Defines the objectives and responsibilities for controlling nonconforming items or services in order to prevent their inadvertent use, installation or application to operating nuclear power plants.
16.1 CORRECTIVE ACTION	Establishes the respective responsibilities of FPL personnel and the procedure for assuring that conditions identified by the FPL QA Department as being adverse to quality, are corrected.
16.2 CANCELLED (Combined with 16.1)	
16.3 CANCELLED (Combined with 16.1)	
16.4 EVALUATING AND REPORTING ~~OF~~ DEFECTS ~~& DEFECTS AND NONCOMPLIANCES~~ AND FAILURE TO COMPLY FOR SUBSTANTIAL SAFETY HAZARDS IN ACCORDANCE WITH 10 CFR PART 21	Specifies the measures and responsibilities within Florida Power & Light to assure compliance to 10 CFR Part 21.

LIST OF CORPORATE QUALITY ASSURANCE PROCEDURES

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OP NUMBER/TITLE	SECTION DESCRIPTION
16.6 CANCELLED	
17.1 QUALITY ASSURANCE RECORDS	Identifies records and documents required to substantiate quality; and, describes measures employed for their maintenance, retention and retrieval.
18.1 PERFORMANCE OF QUALITY ASSURANCE AUDITS	Provides instructions for conducting audits of FPL Quality Assurance Program activities.
18.2 CANCELLED	
18.3 CANCELLED	
18.4 CANCELLED	

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OP NUMBER/TITLE	SECTION DESCRIPTION
1.1 CANCELLED	
2.1 CANCELLED (Terms and Definitions contained in the QA Manual Glossary)	
2.2 CANCELLED ~~REVISIONN OF THE TOPICAL QUALITY ASSURANCE REPORT~~	~~Provides instructions for the revision of the Florida Power & Light Company Topical Quality Assurance Report (FPL TQAR).~~
2.3 QUALITY ASSURANCE PROGRAM REVIEW	**Provides instructions for the revision of the Florida Power & Light Company Topical Quality Assurance Report (FPL TQAR).** Describes the instructions and methods used for establishing, preparing, issuing, revising and controlling Quality Procedures employed in supporting quality requirements.
2.4 PREPARATION AND REVISION OF QUALITY INSTRUCTIONS	Provides the responsibilities, guidelines and methods used for developing and revising Quality Instructions, based upon QP's, that involve quality activities within a department or organization and are *unique to that activity.*
2.5 QUALITY ASSURANCE INDOCTRINATION AND DEPARTMENTAL TRAINING	Describes the requirements for the indoctrination and training of personnel who perform, or are responsible for activities that affect quality.
2.6 CANCELLED	
2.7 IDENTIFICATION OF SAFETY RELATED STRUCTURES, SYSTEMS, AND COMPONENTS	Describes the development and approval of documents identifying safety related and safety related design feature structures, systems and components.
2.8 CLEANLINESS CONTROL METHODS	Provides criteria for securing good housekeeping. Assigns responsibilities for assuring that the cleanliness of material, systems and structures is maintained.

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OP NUMBER/TITLE	SECTION DESCRIPTION
2.9 QUALIFICATION OF QA AUDIT, QC INSPECTION, CONSTRUCTION & POWER SUPPLY TEST PERSONNEL	Describes the personnel qualifications that are required to assure that competent QC inspectors, QA auditors, construction and power supply test personnel perform these respective functions.
2.10 HOUSEKEEPING FOR OPERATING PLANTS	Describes the responsibilities and controls for housekeeping at operating nuclear power plants.
2.11 CANCELLED	
2.12 FPL QA PROGRAM APPLICABILITY FOR FIRE PROTECTION SYSTEMS	Identifies the applicability of the Quality Assurance Program for Fire Protection Systems.
2.13 PROCESSING OF NRC CORRESPONDENCE	Describes the system for providing responses to NRC initiated action requests.
2.14 IMPLEMENTATION OF ASME XI	Describes the program and responsibilities for controlling activities defined by ASME Section XI.
2.15 CONTROL OF COMPUTER SOFTWARE	Specifies basic requirements for control of the lifecycle of computer software on mainframe, stand-alone, and PC computers.
2.17 ENVIRONMENTAL QUALIFICATION (EQ) OF ELECTRICAL EQUIPMENT	Delineates the responsibilities and requirements for maintaining the environmental qualifications of nuclear plant components.
3.1 CANCELLED	
3.2 IDENTIFICATION AND CONTROL OF DESIGN INTERFACES	Describes measures employed for identifying and controlling design interfaces, changes in design interfaces, and modifications that affect documents.

LIST OF CORPORATE QUALITY ASSURANCE PROCEDURES

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OP NUMBER/TITLE	SECTION DESCRIPTION
3.4 PLANT CHANGES AND MODIFICATIONS FOR OPERATING PLANTS	Establishes measures for controlling design changes or modifications in operating nuclear power plants.
3.5 DESIGN CONTROL AT THE CONSTRUCTION SITE	Defines the responsibilities and methods employed for the initiation, review, evaluation, approval and disposition of field initiated design changes and miscellaneous design documents such as field sketches and isometrics.
3.6 CONTROL OF FPL ORIGINATED DESIGN	Covers the preparation, review, and approval of design input documents, design analysis specifications, and design verification for safety related design work originated by FPL.
3.7 EVALUATION AND CONTROL OF CONTRACTOR DESIGN FOR NUCLEAR FUEL AND RELATED SYSTEMS	Describes the evaluation and control of contractor designs for fuel related components and analysis.
4.1 CANCELLED	
4.2 CANCELLED	
4.3 CANCELLED	
4.4 CANCELLED	
4.5 CANCELLED	
4.6 PROCUREMENT CONTROL	Delineates the sequence of actions in the preparation, review, approval, and control of procurement documents.

LIST OF CORPORATE QUALITY ASSURANCE PROCEDURES

DRAFT

OP NUMBER/TITLE	SECTION DESCRIPTION
5.1 OPERATING PLANT PROCEDURES	Describes measures which ensure that instructions and procedures used in operating plants are identified, prepared, reviewed, approved, issued and revised in accordance with regulatory and FPL requirements.
5.2 BACKFIT PROCEDURES	Describes the generation, review and control of backfit procedures.
6.1 CONTROL OF CONSTRUCTION PROJECT CONTRACTOR DRAWINGS, SPECIFICATIONS AND PROCEDURES	Defines responsibilities and methods for the control and issue of contractor drawings, specifications and procedures to be used during the construction phase of nuclear power plants.
6.2 CONTROL OF DOCUMENTS ISSUED BY FPL	Instructions are provided for controlling documents issued by FPL which prescribe activities affecting the quality of safety related items.
6.3 CANCELLED	
6.4 CANCELLED	
6.5 CANCELLED	
6.6 DRAWING CONTROL FOR OPERATING NUCLEAR POWER PLANTS	Describes the method to be used for controlling and updating nuclear safety related drawings for operating plants after turnover from the design organization.
6.7 CONTROL OF VENDOR MANUALS AND VENDOR TECHNICAL INFORMATION	Establishes requirements for controlling technical manuals for operating, maintenance and test equipment.

LIST OF CORPORATE QUALITY ASSURANCE PROCEDURES

DRAFT

OP NUMBER/TITLE	SECTION DESCRIPTION
7.1 RECEIPT INSPECTION OF MATERIALS, PARTS AND COMPONENTS AT THE PLANT SITE	Provides instructions for receipt inspection of materials, parts and components which have been obtained for use in nuclear safety applications at the operating plant site.
7.2 CANCELLED	
7.3 CANCELLED	
7.4 EVALUATION OF SUPPLIERS OF SAFETY RELATED ITEMS OR SERVICES	Provides standards, measures, and guidelines for the evaluation of QA Programs of contractors or suppliers supplying items or services.
7.5 CANCELLED	
7.6 ACCEPTANCE OF ITEMS AND SERVICES	Describes the responsibilities and requirements for accepting nuclear safety related items or services that are being procured for nuclear power plants.
7.8 CANCELLED	
7.9 CONTROL OF ON-SITE SERVICES	This procedure provides a system to assure that vendors who provide on-site services by contract or purchase order to FPL at nuclear power plants are controlled.
8.1 IDENTIFICATION AND CONTROL OF MATERIALS, PARTS, AND COMPONENTS AT THE PLANT SITE	Delineates measures for assuring traceability, identification and control of items from the time they are received through usage at operating plants.
8.2 CANCELLED	
9.1 CONTROL OF SPECIAL PROCESSES	Delineates the responsibilities of organizations and personnel, and the control and documentation of special processes that are applied to safety related items.

DRAFT

OP NUMBER/TITLE	SECTION DESCRIPTION
9.2 CANCELLED (Combined with 9.1)	
9.4 CONTROL OF WELDING FOR NUCLEAR POWER PLANTS	Delineates responsibilities and requirements for control FPL welding processes for nuclear power plants.
10.1 CANCELLED	
10.2 CANCELLED	
10.3 INSPECTION AND SURVEILLANCE	Delineates responsibilities and requirements for the inspection and surveillance of safety related plant maintenance activities, operation of safety related systems, and fuel handling activities.
10.4 CANCELLED	
10.5 CANCELLED	
10.6 CANCELLED	
11.1 CANCELLED (Combined with 11.4)	
11.2 CANCELLED (Combined with 11.4)	
11.3 CANCELLED (Combined with 11.4)	

DRAFT

OP NUMBER/TITLE	SECTION DESCRIPTION
11.4 TEST CONTROL	Defines the measures for control of proof tests prior to installation, construction tests, preoperational tests, startup tests, operational tests and retests following repairs, replacements or modifications for nuclear safety related systems, structures, and components.
12.1 CALIBRATION AND CONTROL OF MEASURING AND TEST EQUIPMENT	Delineates the responsibilities for implementing the described program for maintenance, calibration and control of measuring and test equipment (M&TE).
12.2 CALIBRATION CONTROL OF INSTALLED PLANT INSTRUMENTATION AND CONTROL EQUIPMENT	Describes the calibration program, delineates responsibilities, and establishes procedures for control over the calibration of install instrumentation and plant control equipment.
13.1 HANDLING, STORAGE AND SHIPPING OF MATERIALS, PARTS AND COMPONENTS	Establishes responsibilities and procedures to assure that measures are employed by FPL and contractors to: (1) control the handling, shipping and storage of material; (2) protect the quality of material by using proper handling, shipping, and storage techniques; (3) effectively control the disposition of discrepant items.
13.2 CANCELLED	
13.3 CANCELLED (Combined with 13.1)	
14.1 CANCELLED (Combined with 14.3)	
14.2 CANCELLED (Combined with 14.3)	

DRAFT

OP NUMBER/TITLE	SECTION DESCRIPTION
14.3 INSPECTION, TEST AND OPERATING STATUS DURING PLANT OPERATION	Defines the measures and responsibilities for the identification of the inspection, test and operating status of structures, systems, and components.
15.1 CANCELLED (Combined with 15.2)	
15.2 CONTROL OF NONCONFORMING MATERIALS, PARTS, COMPONENTS AND SERVICES	Defines the objectives and responsibilities for controlling nonconforming items or services in order to prevent their inadvertent use, installation or application to operating nuclear power plants.
16.1 CORRECTIVE ACTION	Establishes the respective responsibilities of FPL personnel and the procedure for assuring that conditions identified by the FPL QA Department as being adverse to quality, are corrected.
16.2 CANCELLED (Combined with 16.1)	
16.3 CANCELLED (Combined with 16.1)	
16.4 EVALUATING AND REPORTING DEFECTS AND FAILURE TO COMPLY FOR SUBSTANTIAL SAFETY HAZARDS IN ACCORDANCE WITH 10 CFR PART 21	Specifies the measures and responsibilities within Florida Power & Light to assure compliance to 10 CFR Part 21.
16.6 CANCELLED	

DRAFT

OP NUMBER/TITLE	SECTION DESCRIPTION
17.1 QUALITY ASSURANCE RECORDS	Identifies records and documents required to substantiate quality; and, describes measures employed for their maintenance, retention and retrieval.
18.1 PERFORMANCE OF QUALITY ASSURANCE AUDITS	Provides instructions for conducting audits of FPL Quality Assurance Program activities.
18.2 CANCELLED	
18.3 CANCELLED	
18.4 CANCELLED	

Florida Power & Light
Topical Quality Assurance Report
Change Summary
June, 1992

Enclosure III

Portions of the current Florida Power & Light Topical Quality Assurance Report (FPLTQAR 1-76A) including Revision 26 dated June 21, 1991 through Revision 29 dated April 30, 1992.

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Topical Quality Requirements				
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TQR 2.0	Quality Assurance Program	10		March 28, 1991
TQR 3.0	Design Control	8		June 12, 1990
TQR 4.0	Procurement Document Control	4		June 12, 1990
TQR 5.0	Instruction, Procedures & Drawings	9		June 12, 1990
TQR 6.0	Document Control	7		June 12, 1990
TQR 7.0	Control of Purchased Items & Services	6		June 12, 1990
TQR 8.0	Identification & Control of Materials, Parts & Components	2		June 10, 1986
TQR 9.0	Control of Special Processes	8		June 12, 1990
TQR 10.0	Inspection	9		June 12, 1990
TQR 11.0	Test Control	3		November 20, 1990
TQR 12.0	Control of Measuring & Test Equipment	4		January 18, 1990
TQR 13.0	Handling, Storage & Shipping	7		June 12, 1990
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B - Qualification & Experience Requirements for Quality Assurance Personnel		5		June 12, 1990
C - Baseline Document Matrix		9		June 5, 1991
D - Cancelled				May 7, 1982
E - List of Corporate Quality Assurance Procedures (QPs)		14		June 21, 1991
F - Topics to be Addressed in Safety Analysis Reports		1		May 7, 1982

QUALITY ASSURANCE PROGRAM POLICY

NEED FOR POLICY

To avoid undue risk to the health and safety of the public and company employees, it is necessary to design, construct, operate and modify nuclear power plants with a high degree of functional integrity, quality and reliability.

STATEMENT OF POLICY

It is the policy of Florida Power & Light Company to design, construct, operate and modify nuclear power plants of a quality level that will meet or exceed government regulations and will merit public confidence by providing electricity in a reliable, efficient and safe manner.

RESPONSIBILITY

The Chairman of the Board and Chief Executive Officer of Florida Power & Light Company has delegated responsibility for execution of the Quality Assurance Program for Florida Power & Light Company nuclear plants to the President, Nuclear Division. The authority for developing and verifying execution of the program is delegated to the Vice President Nuclear Assurance.

The head of each organization performing quality-related activities is responsible for: identifying those activities within their organization which are quality-related as defined by the QA Program; establishing and clearly defining the duties and responsibilities of personnel within their organization who execute those quality related activities; and planning, selecting, and training personnel to meet the requirements of the QA Program.

J. H. Goldberg

J. H. Goldberg
President, Nuclear Division

LIST OF CORPORATE QUALITY ASSURANCE PROCEDURES

OP NUMBER/TITLE	SECTION DESCRIPTION
1.1 CANCELLED	THIS IS AN INFORMATIONAL DOCUMENT AND IS NOT CONTROLLED. BEFORE USE, VERIFY WITH A CONTROLLED COPY.
2.1 CANCELLED (Terms and Definitions contained in the QA Manual Glossary)	
2.2 REVISION OF THE TOPICAL QUALITY ASSURANCE REPORT	Provides instructions for the revision of the Florida Power & Light Company Topical Quality Assurance Report (FPL TQAR).
2.3 QUALITY ASSURANCE PROGRAM REVIEW	Describes the instructions and methods used for establishing, preparing, issuing, revising and controlling Quality Procedures employed in supporting quality requirements.
2.4 PREPARATION AND REVISION OF QUALITY INSTRUCTIONS	Provides the responsibilities, guidelines and methods used for developing and revising Quality Instructions, based upon QP's, that involve quality activities within a department or organization and are unique to that activity.
2.5 QUALITY ASSURANCE INDOCTRINATION AND DEPARTMENTAL TRAINING	Describes the requirements for the indoctrination and training of personnel who perform, or are responsible for activities that affect quality.
2.6 CANCELLED	
2.7 IDENTIFICATION OF SAFETY RELATED STRUCTURES, SYSTEMS, AND COMPONENTS	Describes the development and approval of documents identifying safety related and safety related design feature structures, systems and components.
2.8 CLEANLINESS CONTROL METHODS	Provides criteria for securing good housekeeping. Assigns responsibilities for assuring that the cleanliness of material, systems and structures is maintained.

LIST OF CORPORATE QUALITY ASSURANCE PROCEDURES

OP NUMBER/TITLE	SECTION DESCRIPTION
2.9 QUALIFICATION OF QA AUDIT, QC INSPECTION, CONSTRUCTION & POWER SUPPLY TEST PERSONNEL	Describes the personnel qualifications that are required to assure that competent QC inspectors, QA auditors, construction and power supply test personnel perform these respective functions.
2.10 HOUSEKEEPING FOR OPERATING PLANTS	Describes the responsibilities and controls for housekeeping at operating nuclear power plants.
2.11 CANCELLED	
2.12 FPL QA PROGRAM APPLICABILITY FOR FIRE PROTECTION SYSTEMS	Identifies the applicability of the Quality Assurance Program for Fire Protection Systems.
2.13 PROCESSING OF NRC CORRESPONDENCE	Describes the system for providing responses to NRC initiated action requests.
2.14 IMPLEMENTATION OF ASME XI	Describes the program and responsibilities for controlling activities defined by ASME Section XI.
2.15 CONTROL OF COMPUTER SOFTWARE	Specifies basic requirements for control of the lifecycle of computer software on mainframe, stand-alone, and PC computers.
2.17 ENVIRONMENTAL QUALIFICATION (EQ) OF ELECTRICAL EQUIPMENT	Delineates the responsibilities and requirements for maintaining the environmental qualifications of nuclear plant components.
3.1 CANCELLED	

OP NUMBER/TITLE	SECTION DESCRIPTION
3.2 IDENTIFICATION AND CONTROL OF DESIGN INTERFACES	Describes measures employed for identifying and controlling design interfaces, changes in design interfaces, and modifications that affect documents.
3.4 PLANT CHANGES AND MODIFICATIONS FOR OPERATING PLANTS	Establishes measures for controlling design changes or modifications in operating nuclear power plants.
3.5 DESIGN CONTROL AT THE CONSTRUCTION SITE	Defines the responsibilities and methods employed for the initiation, review, evaluation, approval and disposition of field initiated design changes and miscellaneous design documents such as field sketches and isometrics.
3.6 CONTROL OF FPL ORIGINATED DESIGN	Covers the preparation, review, and approval of design input documents, design analysis specifications, and design verification for safety related design work originated by FPL.
3.7 EVALUATION AND CONTROL OF CONTRACTOR DESIGN FOR NUCLEAR FUEL AND RELATED SYSTEMS	Describes the evaluation and control of contractor designs for fuel related components and analysis.
4.1 CANCELLED	
4.2 CANCELLED	
4.3 CANCELLED	
4.4 CANCELLED	

LIST OF CORPORATE QUALITY ASSURANCE PROCEDURES

OP NUMBER/TITLE	SECTION DESCRIPTION
4.5 CANCELLED	
4.6 PROCUREMENT CONTROL	Delineates the sequence of actions in the preparation, review, approval, and control of procurement documents.
5.1 OPERATING PLANT PROCEDURES	Describes measures which ensure that instructions and procedures used in operating plants are identified, prepared, reviewed, approved, issued and revised in accordance with regulatory and FPL requirements.
5.2 BACKFIT PROCEDURES	Describes the generation, review and control of backfit procedures.
6.1 CONTROL OF CONSTRUCTION PROJECT CONTRACTOR DRAWINGS, SPECIFICATIONS AND PROCEDURES	Defines responsibilities and methods for the control and issue of contractor drawings, specifications and procedures to be used during the construction phase of nuclear power plants.
6.2 CONTROL OF DOCUMENTS ISSUED BY FPL	Instructions are provided for controlling documents issued by FPL which prescribe activities affecting the quality of safety related items.
6.3 CANCELLED	
6.4 CANCELLED	
6.5 CANCELLED	
6.6 DRAWING CONTROL FOR OPERATING NUCLEAR POWER PLANTS	Describes the method to be used for controlling and updating nuclear safety related drawings for operating plants after turnover from the design organization.

LIST OF CORPORATE QUALITY ASSURANCE PROCEDURES

OP NUMBER/TITLE	SECTION DESCRIPTION
6.7 CONTROL OF VENDOR MANUALS AND VENDOR TECHNICAL INFORMATION	Establishes requirements for controlling technical manuals for operating, maintenance and test equipment.
7.1 RECEIPT INSPECTION OF MATERIALS, PARTS AND COMPONENTS AT THE PLANT SITE	Provides instructions for receipt inspection of materials, parts and components which have been obtained for use in nuclear safety applications at the operating plant site.
7.2 CANCELLED	
7.3 CANCELLED	
7.4 EVALUATION OF SUPPLIERS OF SAFETY RELATED ITEMS OR SERVICES	Provides standards, measures, and guidelines for the evaluation of QA Programs of contractors or suppliers supplying items or services.
7.5 CANCELLED	
7.6 ACCEPTANCE OF ITEMS AND SERVICES	Describes the responsibilities and requirements for accepting nuclear safety related items or services that are being procured for nuclear power plants.
7.8 CANCELLED	
7.9 CONTROL OF ON-SITE SERVICES	This procedure provides a system to assure that vendors who provide on-site services by contract or purchase order to FPL at nuclear power plants are controlled.
8.1 IDENTIFICATION AND CONTROL OF MATERIALS, PARTS, AND COMPONENTS AT THE PLANT SITE	Delineates measures for assuring traceability, identification and control of items from the time they are received through usage at operating plants.

OP NUMBER/TITLE	SECTION DESCRIPTION
8.2 CANCELLED	
9.1 CONTROL OF SPECIAL PROCESSES	Delineates the responsibilities of organizations and personnel, and the control and documentation of special processes that are applied to safety related items.
9.2 CANCELLED (Combined with 9.1)	
9.4 CONTROL OF WELDING FOR NUCLEAR POWER PLANTS	Delineates responsibilities and requirements for control FPL welding processes for nuclear power plants.
10.1 CANCELLED	
10.2 CANCELLED	
10.3 INSPECTION AND SURVEILLANCE	Delineates responsibilities and requirements for the inspection and surveillance of safety related plant maintenance activities, operation of safety related systems, and fuel handling activities.
10.4 CANCELLED	
10.5 CANCELLED	
10.6 CANCELLED	
11.1 CANCELLED (Combined with 11.4)	
11.2 CANCELLED (Combined with 11.4)	

OP NUMBER/TITLE	SECTION DESCRIPTION
11.3 CANCELLED (Combined with 11.4)	
11.4 TEST CONTROL	Defines the measures for control of proof tests prior to installation, construction tests, preoperational tests, startup tests, operational tests and retests following repairs, replacements or modifications for nuclear safety related systems, structures, and components.
12.1 CALIBRATION AND CONTROL OF MEASURING AND TEST EQUIPMENT	Delineates the responsibilities for implementing the described program for maintenance, calibration and control of measuring and test equipment (M&TE).
12.2 CALIBRATION CONTROL OF INSTALLED PLANT INSTRUMENTATION AND CONTROL EQUIPMENT	Describes the calibration program, delineates responsibilities, and establishes procedures for control over the calibration of install instrumentation and plant control equipment.
13.1 HANDLING, STORAGE AND SHIPPING OF MATERIALS, PARTS AND COMPONENTS	Establishes responsibilities and procedures to assure that measures are employed by FPL and contractors to: (1) control the handling, shipping and storage of material; (2) protect the quality of material by using proper handling, shipping, and storage techniques; (3) effectively control the disposition of discrepant items.
13.2 CANCELLED	
13.3 CANCELLED (Combined with 13.1)	
14.1 CANCELLED (Combined with 14.3)	

OP NUMBER/TITLE	SECTION DESCRIPTION
14.2 CANCELLED (Combined with 14.3)	
14.3 INSPECTION, TEST AND OPERATING STATUS DURING PLANT OPERATION	Defines the measures and responsibilities for the identification of the inspection, test and operating status of structures, systems, and components.
15.1 CANCELLED (Combined with 15.2)	
15.2 CONTROL OF NONCONFORMING MATERIALS, PARTS, COMPONENTS AND SERVICES	Defines the objectives and responsibilities for controlling nonconforming items or services in order to prevent their inadvertent use, installation or application to operating nuclear power plants.
16.1 CORRECTIVE ACTION	Establishes the respective responsibilities of FPL personnel and the procedure for assuring that conditions identified by the FPL QA Department as being adverse to quality, are corrected.
16.2 CANCELLED (Combined with 16.1)	
16.3 CANCELLED (Combined with 16.1)	
16.4 EVALUATING AND REPORTING DEFECTS AND FAILURE TO COMPLY FOR SUBSTANTIAL SAFETY HAZARDS IN ACCORDANCE WITH 10 CFR PART 21	Specifies the measures and responsibilities within Florida Power & Light to assure compliance to 10 CFR Part 21.

LIST OF CORPORATE QUALITY ASSURANCE PROCEDURES

OP NUMBER/TITLE	SECTION DESCRIPTION
16.6 CANCELLED	
17.1 QUALITY ASSURANCE RECORDS	Identifies records and documents required to substantiate quality; and, describes measures employed for their maintenance, retention and retrieval.
18.1 PERFORMANCE OF QUALITY ASSURANCE AUDITS	Provides instructions for conducting audits of FPL Quality Assurance Program activities.
18.2 CANCELLED	
18.3 CANCELLED	
18.4 CANCELLED	

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Table of Contents		27		September 6, 1991
Quality Assurance Program Policy		9		June 21, 1991
Introduction		12		August 9, 1991
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TQR 1.0	Organization	20		June 5, 1991
TQR 2.0	Quality Assurance Program	10		March 28, 1991
TQR 3.0	Design Control	8		June 12, 1990
TQR 4.0	Procurement Document Control	4		June 12, 1990
TQR 5.0	Instruction, Procedures & Drawings	9		June 12, 1990
TQR 6.0	Document Control	7		June 12, 1990
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TQR 8.0	Identification & Control of Materials, Parts & Components	2		June 10, 1986
TQR 9.0	Control of Special Processes	8		June 12, 1990
TQR 10.0	Inspection	10		September 6, 1991
TQR 11.0	Test Control	3		November 20, 1990
TQR 12.0	Control of Measuring & Test Equipment	4		January 18, 1990
TQR 13.0	Handling, Storage & Shipping	7		June 12, 1990
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Figure 1-2: Turkey Point Nuclear Site Organization		4	June 5, 1991
Figure 1-3: St. Lucie Nuclear Site Organization		5	June 5, 1991
B - Qualification & Experience Requirements for Quality Assurance Personnel		5	June 12, 1990
C - Baseline Document Matrix		9	June 5, 1991
D - Cancelled			May 7, 1982
E - List of Corporate Quality Assurance Procedures (QPs)		14	June 21, 1991
F - Topics to be Addressed in Safety Analysis Reports		1	May 7, 1982

The Topical Quality Assurance Report (FPLTQAR 1-76A) contains the description of the Florida Power & Light Company (FPL) Quality Assurance Program relative to its nuclear power plants. This report consists of three parts: The Introduction, which delineates the purpose and summarizes the scope and applicability of the Topical Quality Assurance Report. The second part, Topical Quality Requirements (TQRs), which delineate Quality Assurance Program requirements and summarizes the FPL approach to activities related to materials, parts, components, systems, and services included in the Quality Assurance Program. The third part, Appendices, which provide supporting statements, tabulations, and technical analyses or deviations which are not, in themselves, the subject of the report.

The Topical Quality Assurance Report shall be an integral part of the corporate Quality Assurance Manual (FPL-NQA-100A), and shall delineate the generic requirements and responsibilities by which FPL implements the corporate Quality Assurance Program. Revisions and changes to this Report will be made in accordance with a Quality Procedure as outlined in TQR 2.0. The remainder of the Quality Assurance Manual is comprised of Quality Procedures (QPs) which serve as the documents which describe how the interfacing of tasks between departments or organizations is achieved. The Quality Procedures also cover those technical elements which require a common corporate position for interfaces or resolution of problem areas.

In addition to the Quality Assurance Manual, Quality Instructions (QIs) are developed as required by each of the implementing plants and departments. Quality Instructions describe the measures to be used to implement the quality requirements of the Quality Assurance Manual. The Quality Instructions describe actions and responsibilities to be performed within a department or organization and address the requirements of the appropriate Topical Quality Requirements, and Quality Procedures.

The FPL Quality Assurance Program meets the requirements provided by the NRC Regulatory Guidance and Industry Standards as listed in Appendix C of this Topical Quality Assurance Report.

The requirements of this Topical Quality Assurance Report apply to safety-related materials, parts, components, systems and structures; services employed for design, procurement, construction, operation, maintenance, refueling, repair, and modification; and packaging and shipping of radioactive material (but not design and fabrication of packages for which a license, certificate of compliance, or other approval must be issued by the NRC) in accordance with 10 CFR part 71. The safety-related systems for each plant are specified in the respective plant Safety Analysis Report.

The FPL Quality Assurance Program fully addresses the requirements of Appendix B to 10 CFR Part 50. The Topical Quality Assurance Report shall be applicable to all existing nuclear plants, those under construction, and supporting FPL departments, and will be referenced in the Safety Analysis Report (SAR). For future plants, the description of activities, requirements, and organizational structures that are unique to a particular plant shall be addressed in the respective SAR document.

James E Yuroga

Vice President Nuclear Assurance

10.1 GENERAL REQUIREMENTS

A program for inspection shall be established and executed by or for FPL to verify conformance with the documented instructions, procedures and drawings for accomplishing an activity. Such inspections shall be performed by individuals or groups other than those who performed the activity being inspected. Examinations, measurements and tests of materials or products processed shall be performed for each work operation, where necessary, to assure conformance to established requirements. If direct inspection of processed materials or products is impossible or disadvantageous, indirect control by surveillance or monitoring shall be provided. Mandatory inspection, witness, or hold points beyond which work shall not proceed without the consent of FPL or a designated representative shall be indicated in the appropriate documents.

10.2 IMPLEMENTATION

10.2.1 Inspection Responsibilities

For plant operations, maintenance, or modification activities, a program for on-site inspection of activities affecting quality shall be established by the Nuclear Assurance Department. Quality Control shall perform inspections, surveillance and monitoring of plant activities including operations, maintenance or modifications as required by established plans, schedules and/or procedurally required inspection, witness or hold points. In all cases, the personnel performing the inspection shall be independent of the group performing the work.

For these plant activities, the Nuclear Assurance Department may delegate the establishment and execution of this program to a contractor or other designated FPL representative, but shall retain ultimate responsibility for the program.

10.2.1 (Continued)

For preoperational start-up and testing of plant modifications, Nuclear Division personnel may report functionally to the Site Construction Services Manager and establish plans, schedules and procedurally required inspection, witness or hold points. In all cases, the personnel performing the inspection shall be independent of the group performing the work.

Protection & Control Systems may perform inspections of equipment within their purview during operations. Inspections shall be performed in accordance with approved, written procedures by qualified personnel.

Quality Procedures and Quality Instructions shall be written which delineate the requirements and responsibilities for the performance of inspections.

10.2.2 Inspection Plans and Schedules

Documented inspection plans may be either a separate document or an integral part of work instruction documents. The plans shall be based on design specifications, procurement documents, drawings, other specifications or previous experience, as appropriate. Inspections shall be scheduled to assure that sufficient time and resources are available, and to assure inspections are not inadvertently omitted or bypassed.

10.2.3 Inspection Personnel

a. Inspections shall be performed by individuals other than those who performed or directly supervised the activity being inspected. Inspection personnel shall be qualified and certified in accordance with appropriate codes, standards and/or company training programs. Qualifications and certifications shall be kept current.

b. Prior to performing inspections, inspection personnel shall have access to the drawings, procedures, specifications or other documented criteria necessary for performance of the inspection.

10.2.4 Inspection Procedures

a. Required inspection, surveillance or monitoring activities shall be performed and documented according to written, approved instructions or procedures. Inspection procedures, instructions or checklists shall contain the following:
   - o Identification of characteristics to be inspected;
   - o Identification of the individual or groups responsible for performing the inspection;
   - o Acceptance criteria or reference to the acceptance criteria;
   - o A description of the method of inspection;
   - o Verification of completion and certification of inspection.

b. Inspection records shall identify:
   - o Inspector or data recorder;
   - o Method or type of observations;
   - o Test or inspection results;
   - o Statement of acceptability;
   - o Date of observation;
   - o Deficiencies and nonconformances, and the action taken in connection with these deficient conditions, either by inclusion or by reference to other documents.

c. Inspection procedures shall be reviewed by QC personnel to determine the need for an independent inspection and the degree and method if such an inspection is required, and to assure the identification of inspection personnel and the method of documentation of inspection results.

d. Written approved instructions shall specify surveillance or monitoring of processing methods, or testing and operation of equipment when inspection is impossible, inaccessible or not applicable.

10.2.4 (Continued)

e. Modification, repair, replacement or rework items shall be inspected in accordance with original inspection requirements or acceptable alternatives.

10.2.5 Inspection, Witness, and Hold Point Identification

Appropriate inspection, witness or hold points shall appear in process documents (e.g., construction, testing, operating and maintenance procedures). These process procedures are subject to the review of the Quality Control organization for adequacy of inspection, witness, and hold points.

Mandatory hold points shall be identified in process documents when witnessing and inspecting must be performed and signed-off by the responsible personnel before work can proceed.

FPL procurement documents shall indicate FPL witness or hold points applicable prior to during, or after the manufacture of an item or the performance of a service. A distinction shall be made between witness points and mandatory hold points.

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TQR 5.0	Instruction, Procedures & Drawings	9		June 12, 1990
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TQR 7.0	Control of Purchased Items & Services	6		June 12, 1990
TQR 8.0	Identification & Control of Materials, Parts & Components	2		June 10, 1986
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1.1 GENERAL REQUIREMENTS

The Florida Power & Light (FPL) organizational structure shall be defined such that the responsibilities for establishment and implementation of the Quality Assurance Program are clearly identified. The authority and duties of individuals and organizations performing quality assurance and quality control functions shall be described, and shall illustrate the organizational independence and authority necessary to identify problems; to initiate, recommend, or provide solutions; and to verify implementation of solutions. In addition, the description shall illustrate that persons or groups responsible for verifying the correct performance of an activity are independent of the person or groups responsible for performing the activity.

1.2 IMPLEMENTATION

The FPL Chairman of the Board and Chief Executive Officer is ultimately responsible for the execution of the Quality Assurance Program for FPL nuclear power plants. The authority for developing and verifying execution of the program is delegated to the President Nuclear Division and the Vice President Nuclear Assurance. The reporting relationship of each department involved with the Quality Assurance Program is shown in Appendix A.

To provide for a review and evaluation of Quality Assurance Program policies and activities, the President Nuclear Division has established the Company Nuclear Review Board (CNRB). This organization's responsibilities are defined in Section 1.2.1.3.a.

In addition, a Quality Assurance Program Review Committee (QAPRC) has been established to review changes to the Quality Assurance Program and to provide an interface for quality matters in each department affecting quality. The QAPRC is an interdepartmental organization with the responsibility to review and resolve recommended changes to the Quality Assurance Program. This committee is administered by the Quality Assurance Services group. Quality Assurance Program changes reviewed by the QAPRC are reviewed and signed by the department heads or individuals listed on each Quality Procedure.

1.2 (Cont'd)

A Quality Assurance Program Review Committee (QAPRC) Member shall be designated by the head of each department or organization. The QAPRC Member is the prime interface for coordination of quality-related matters within the member's department, with the Quality Assurance Department, and with other departments.

The head of each department or organization performing quality-related activities is responsible for: a) identifying those activities within the organization which are quality-related as defined by the Quality Assurance Program; b) establishing and clearly defining the duties and responsibilities of personnel within his organization who execute those quality-related activities; and c) planning, selecting, and training personnel to meet the requirements of the Quality Assurance Program. The responsibility, authority, and organizational relationship for performing quality-related activities within each organization shall be established and delineated in organizational charts and written job or functional descriptions.

The organization charts in Appendix A illustrate the lines of authority and areas of responsibility for each of the organizations that are involved in quality-related activities. Below are listed the departments and organizations that have Quality Assurance responsibilities. Specific organizational responsibilities for implementation of the Quality Assurance Program are described in the corresponding sections.

1.2.1 Nuclear Division

1.2.1.1 Nuclear Operations

1.2.1.2 Nuclear Engineering and Licensing

1.2.1.3 Nuclear Assurance

1.2.1.4 Nuclear Analysis and Controls

1.2.2 Support Departments

1.2.2.1 Corporate Secretary
- Corporate Records
- Documentary Files

1.2.2.2 Environmental Affairs

1.2.2.3 Protection & Control Systems

1.2.2.4 Information Management

1.2.1 **Nuclear Division**

Throughout plant life, the Nuclear Division maintains control of and responsibility for nuclear power plant design, preoperational and start-up testing, operation, maintenance, refueling, and modification of the plant in accordance with written and approved procedures.

The President Nuclear Division has overall responsibility for the Nuclear Divisions's activities. Reporting to the President Nuclear Division are: the Senior Vice President Nuclear Operations, Vice President Nuclear Assurance, Vice President Nuclear Engineering and Licensing, and the Manager Nuclear Analysis and Controls.

1.2.1.1 Nuclear Operations

The Senior Vice President Nuclear Operations is responsible for nuclear power production. Reporting to the Senior Vice President Nuclear Operations are the Vice President-Turkey Point Plant, Vice President-St. Lucie Plant, Manager Nuclear Security, Manager Nuclear Training, Manager Nuclear Services and Director - Nuclear Construction Services.

a. The Vice President-St. Lucie Plant and Vice President-Turkey Point Plant are accountable for the operation, maintenance, and modification of their respective nuclear plant, as well as the selection, development and direction of the assigned staff. They will act as liaison between the plants and corporate headquarters, and are accountable for ensuring that company policies and procedures are properly implemented and continued at the nuclear site.

Reporting to the Plant Vice President - Turkey Point Plant are the Plant General Manager, the Services Manager, the Human Resources Manager, the Business Systems Manager and the Licensing Manager. Also, the Plant Vice President has functional responsibility over the Site Engineering Manager providing work direction to this group.

1.2.1.1 (Cont'd)

Reporting to the Vice President - St. Lucie Plant are the Plant General Manager, the Services Manager, the Licensing Manager, and the Human Resources Manager. Also, the Plant Vice President has functional responsibility over the Nuclear Material Management Superintendent and the Construction Services Manager providing work direction to those groups.

The Plant General Manager - PSL and Plant General Manager - PTN, through the respective Plant Vice President, are responsible for the operation of the nuclear plant.

The Plant Nuclear Safety Committee (PNSC) at Turkey Point Plant and the Facility Review Group (FRG) at the St. Lucie Plant are comprised of key plant management and staff personnel as described in the plant Technical Specifications. The PNSC/FRG serves the plant manager in a technical advisory capacity for the review of all safety-related procedures and activities that impact plant safety and the facility operating license.

b. The Manager Nuclear Training prepares policy documents regarding nuclear training and provides support to secure the necessary resources to ensure that Nuclear Division personnel are adequately trained. They must have adequate technical and job-related skills to provide safe and efficient operation while complying with NRC requirements.

c. The Manager Nuclear Security is responsible for coordinating the overall development and implementation of the FPL nuclear security program

d. The Manager Nuclear Services is accountable for technical staff support to the Nuclear Operations Department and certain centralized special functions. This group consists of section supervisors and technical specialists, with functions including Health Physics, Chemistry, Radiological Waste, and Emergency Planning.

1.2.1.1 (Cont'd)

e. The Director - Nuclear Construction Services is responsible for directing and administering effective management of the department to ensure compliance to the corporate policies, practices and procedures; and providing qualified construction support personnel to the Site Construction Services Managers.

Reporting to the Director - Nuclear Construction Services are the Manager Construction Control and the Site Construction Services Managers.

The Manager Construction Control is responsible for:

- o monitoring budget performance against planned engineering activities as budgeted by the Construction Services organization;
- o monitoring the efficient utilization of resources expended against Construction Services budgeted activities; and
- o ensuring economic utilization of capital construction equipment at all Construction Services locations.

The Site Nuclear Construction Services Manager is responsible for:

- o completing the assigned project in compliance with technical and other project specifications, and for the application of the provisions of the Quality Assurance Manual during the project;
- o obtaining corrective action (along with Nuclear Materials Management) from contractor's management and, when necessary, exercising the authority to stop work on project activities adverse to quality.

Reporting to the Site Construction Services Manager are the Lead Construction Supervisors. The Lead Construction Supervisor is responsible for conformance of project construction activities to the requirements of specifications, codes, regulations and site procedures. The Lead Construction Supervisor supervises the construction personnel

1.2.1.1 (Cont'd)

assigned to the project, and coordinates construction activities, including the assignment of construction personnel.

The overall responsibility for Plant Changes and Modifications to operating plants is defined in each plant's Technical Specifications. The work of installation and administration of Plant Changes and Modifications can be assigned to Nuclear Construction Services. The Site Construction Services Manager will report to the Director - Nuclear Construction Services; however, the Vice President - PSL or Services Manager - PTN has functional responsibility over the Site Construction Services Manager by providing work direction.

Project Team Members are appointed by their home department heads as the departmental representative on the respective project, when requested by the Site Construction Services Manager. Team Members, other than Quality Assurance, report functionally to the Site Construction Services Manager, but continue to receive administrative support and technical direction from their home department. Team members are responsible to the Site Construction Services Manager for home department support to the project.

Activities affecting quality may be performed by FPL or contracted. Should any of these functions be contracted, the contractor may perform the activities under his own Quality Assurance Program, which must have prior approval by FPL Quality Assurance, or the contractor may directly adopt the requirements of the FPL Quality Assurance Manual. If the contractor implements the Quality Control function directly to the FPL Quality Assurance Manual requirements, the contractor's Quality Control Supervisor shall have the authority and freedom to administer the Quality Control program.

1.2.1.2 Nuclear Engineering and Licensing

The Vice President Nuclear Engineering and Licensing is responsible for nuclear plant design, materials management and maintaining the operating licenses.

Reporting to the Vice President Nuclear Engineering and Licensing are the Director - Nuclear Engineering, Manager - Turkey Point Engineering, Manager - St. Lucie Engineering, Director - Nuclear Licensing, Director - Nuclear Materials Management, Manager - Information Management and Manager - Project Controls.

a. Nuclear Engineering Department

The Nuclear Engineering Department includes personnel located at both nuclear sites and at the corporate office. Nuclear Engineering performs design-related activities and delegates design-related activities to qualified contractors. For activities performed by Nuclear Engineering, the work is governed by FPL's Quality Assurance Program, and Nuclear Engineering is responsible for approval of the design output. Delegated activities are performed in accordance with an FPL approved Quality Assurance Program and the contractor is responsible for approval of design output. Nuclear Engineering is responsible for defining the scope of delegated activities and the responsibilities of the contractor. Prior to the release of design outputs by contractor organizations, Nuclear Engineering ensures that the contractor is technically qualified to perform the design-related activity.

The Director - Nuclear Engineering, Manager - Turkey Point Engineering and the Manager - St. Lucie Engineering direct the engineering aspects of all FPL nuclear power plant projects during construction and operation to assure efficient, economical and reliable power plant design, conformance with engineering schedules and budgets and compliance with regulatory requirements. The Manager - Turkey Point Engineering and Manager - St. Lucie Engineering are responsible for on-site engineering support to the nuclear units. The Director - Nuclear Engineering is responsible for engineering projects and support at the Corporate Nuclear Engineering

1.2.1.2 (Cont'd)

Office. Project Managers are assigned to provide overall management and control of designated projects as required by the Vice President - Engineering and Licensing.

The Nuclear Engineering Department is responsible for:

- power plant design-related aspects of the FPL Quality Assurance Program throughout all phases of plant life. This responsibility extends from initial engineering evaluations of plant design-related site characteristics, through preliminary and detailed design, construction, operation and decommissioning;
- development and maintenance of the design control program governing design-related activities performed by Nuclear Engineering and for providing technical support to the Quality Assurance Department for assessing the adequacy, implementation and effectiveness of contractor design control programs;
- the preparation, revision, approval and distribution of plant design records that are identified to be maintained as "as constructed" drawings during plant operation;
- the development, control, and performance of certain aspects of items and services procurement, including establishment of procurement standards, the technical evaluation, equivalency evaluation, and commercial grade dedication of replacement parts/components for nuclear plants. This also includes review and approval of procurement documents for safety related materials and equipment, as well as configuration control activities for controlled design documentation associated with the procurement of items;
- forecasting FPL's nuclear fuel requirements and the availability of nuclear fuel;
- determining sources of supply, evaluating alternatives, and negotiating and establishing arrangements with suppliers for acquisition, processing and delivery of nuclear fuel and related services for the nuclear fuel cycle;
- assuring that technical and quality requirements (including inputs from other FPL departments) are incorporated in fuel contracts and letters of authorization, and that these documents have the necessary approvals;

1.2.1.2 (Cont'd)

- o administering and managing contracts for nuclear fuel and related services to assure that technical and quality obligations are met, and serving as FPL liaison in all matters of nuclear fuel and fuel-related contracts;
- o administering and managing spent fuel disposal contracts with Department of Energy and serving as FPL liaison in matters of nuclear fuel and high level waste disposal;
- o performing the project management function with respect to fuel management, design, licensing, delivery and other technical aspects of nuclear fuel;
- o all fuel related design, analyses, reviews, and technical assistance necessary to ensure the safe, reliable, and economic operation of the nuclear plants;
- o the optimization of nuclear fuel cycle economics within nuclear safety and operating constraints, as well as providing fuel related information, such as forecasts of nuclear fuel requirements to support licensing and regulatory requirements;
- o the development and/or review of fuel and nuclear physics design;
- o implementing and maintaining the FPL corporate nuclear material accountability program as outlined in the FPL Special Nuclear Material Control Manual;
- o providing support to the Quality Assurance Department for their auditing of nuclear fuel design and fuel assembly manufacturing;
- o performing audits and coordinating accountability reporting on all nuclear fuel;
- o developing and providing, to appropriate FPL groups, information necessary to determine FPL's fuel-related costs and to finance fuel-related expenditures;
- o providing technical support of activities associated with component reliability, materials evaluations, inspections, corrosion protection, non-destructive examination, and ASME Section XI implementation/problem resolution for nuclear plant components;
- o providing specific component expertise, metallurgical support, and non-destructive examination and inspections;
- o establishing the FPL Welding Program to meet the requirements of the Quality Assurance Program and applicable codes and standards;

1.2.1.2 (Cont'd)

- o developing, maintaining, and controlling the FPL Welding Control Manual to implement the FPL Welding Program;
- o originating and qualifying welding procedure specifications; and
- o providing technical direction to personnel within the FPL Welding Program.

b. Nuclear Licensing Department

The Nuclear Licensing Department is responsible for:

- o Nuclear Division corporate interface with the NRC;
- o Nuclear Division corporate administrative point of contact with INPO;
- o Managing NRC safety and regulatory issues and developing effective strategies to resolve them;
- o Advising senior Nuclear Division management on a regular basis of important developments in licensing areas which could significantly affect the Nuclear Division;
- o Providing Nuclear Division licensing hearing and legal services;
- o Providing corporate licensing support and guidance to onsite licensing organizations;
- o Administering the Nuclear Problem Reporting System;
- o Administering the Commitment Tracking System;
- o Administering the Operating Experience and Feedback System.

c. Nuclear Materials Management Department

The Nuclear Materials Management Department is responsible for procurement, negotiation, and administration of contracts (except nuclear fuel), purchase and control of materials, and the administrative duties required to support these functions. Reporting to the Director Nuclear Materials Management are the Manager Nuclear Contracts, and the Superintendents Site Material Management (Turkey Point and St. Lucie).

1.2.1.2 (Cont'd)

1) Nuclear Contracts

Nuclear Contracts is responsible for generation, negotiation and issuance of contracts and purchase orders for services associated with repairs, constructors, construction managers, Architect Engineer (A/E) and consulting services, and material and equipment as required to support Nuclear Division support staff.

Nuclear Contracts is also responsible for assuring that technical and quality requirements developed by others are incorporated into the procurement documents which it authorizes and that these documents have the required approvals. Services for nuclear safety-related applications are secured only from approved suppliers, or commercial grade, as applicable. Nuclear Contracts is responsible for maintaining traceability of procurement document records until transmitted to an approved storage facility.

2) Site Material Management

The Site Superintendents Material Management (Turkey Point and St. Lucie) are responsible for the procurement and control of FPL Nuclear Division's materials and equipment. Site Material Management consists of Purchasing and Warehousing.

- Purchasing is responsible for the procurement of materials and equipment by FPL for its nuclear power plants with the exception of Nuclear Fuel. Materials and equipment for nuclear safety-related application are secured only from approved suppliers, or as commercial grade, as applicable. Purchasing is responsible for assuring that technical and quality requirements developed by others are incorporated in the procurement document which it authorizes, and

1.2.1.2 (Cont'd)

that these documents have the required approvals. It is responsible for maintaining traceability of procurement document records until transmitted to an approved storage facility.

- o Warehousing is responsible for the receipt, handling, storage, shipping and issue of materials and equipment received at the plant site for control by Site Material Management. This responsibility encompasses material, parts and components for plant equipment through all phases of plant life. During operations, Warehousing also performs additional quality-related activities such as handling and segregation for nonconforming items received for material control.

d. Project Controls Department

The Project Controls Department is responsible for:

- o Coordinating the establishment of scope baseline for the Nuclear Engineering, Nuclear Materials Management, and Nuclear Licensing Departments.
- o Developing estimates for the scope, and annually establishing budgets for the work to be performed.
- o Monitoring cost and schedule performance.
- o Reforecasting costs and schedule based on performance history and emergent trends.
- o Providing management with corrective action recommendations, and implement same into revised scope, cost, and schedule baselines.

e. Nuclear Information Management Department

The Nuclear Information Management Department is responsible for the identification, design, development, implementation, on-going maintenance, and control of all Nuclear Division data processing information systems excluding process applications.

1.2.1.2 (Cont'd)

This encompasses the following accountabilities:

- o direct the development, implementation, and on-going maintenance of information management systems;
- o coordinate and direct the computer hardware and telecommunication planning and control within the Nuclear Division;
- o ensure that the Nuclear Division's Information Management Program is in full compliance with software quality assurance regulations and guidelines;
- o administer and control system access;
- o execute software production release and change control activities;
- o administer physical databases and provide on-going technical support.

1.2.1.3 Nuclear Assurance Department

The Vice President Nuclear Assurance is responsible for the selection, technical direction, administrative control (e.g. performance appraisal, salary review, hire/fire, position assignment) staffing, training and development of personnel required for supervisory and operating continuity of the Quality Assurance Department, Nuclear Safety Speakout Group and CNRB administrative support. The Vice President Nuclear Assurance also initiates QA Program policy changes when necessary. In addition, the Vice President Nuclear Assurance is responsible for selecting a team independent of the Quality Assurance Department to perform periodic audits of the Quality Assurance Department. The results of these audits are presented to the Vice President, Nuclear Assurance and the CNRB. Reporting to the Vice President Nuclear Assurance are the Manager Nuclear Safety Speakout, the Site Quality Manager - Turkey Point, the Site Quality Manager - St. Lucie, the Quality Manager - Juno Beach, and for administrative support, the CNRB Chairman.

1.2.1.3 (Cont'd)

a. Company Nuclear Review Board (CNRB)

The Company Nuclear Review Board (CNRB), reporting to the President Nuclear Division, is comprised of executive level members of management with responsibilities for the execution of the Quality Assurance Program. The CNRB reviews, or directs the performance of reviews of, activities concerning the technical aspects of the operating nuclear power plant insofar as they impact on plant safety, the health and safety of the public, and laws, regulations and licensing commitments. In addition, audits of these areas are performed under the cognizance of the CNRB.

The CNRB composition is described in Section 6.0 of each facility's Technical Specifications and in its current policy. Subjects within the purview of the CNRB are listed in the appropriate plant Technical Specifications. The CNRB has the authority to carry out its responsibilities by way of written action letters, verbal directions, meeting minutes or appointed subcommittees. Where necessary, the CNRB may use consulting services to perform required reviews.

The CNRB is responsible for reviewing and evaluating Quality Assurance Program policies and activities. Quality Assurance Program status reports shall be periodically prepared by the Quality Assurance Department and routed to the members of the CNRB for review.

CNRB meetings shall be held by the Chairman to keep members apprised of conditions including significant problems that require management attention. Periodic audits of the Quality Assurance Department shall be performed by a team independent of the Quality Assurance Department. The results of this audit are presented to the Vice President Nuclear Assurance and the CNRB.

The Chairmen of the Independent Safety Engineering Groups, at Turkey Point and St. Lucie, report to the Chairman of the CNRB.

1.2.1.3 (Cont'd)

b. Quality Assurance Department

The Quality Assurance Department shall be responsible for administering the FPL Quality Assurance Program. This includes developing and verifying implementation of corporate policies, plans, requirements, and procedures affecting quality. This is accomplished through the Quality Assurance Department. The Quality Assurance Department retains responsibility for delegated portions of the Quality Assurance Program by performing initial evaluation and subsequent periodic audits of the contractors' Quality Assurance Programs. The Quality Assurance Program responsibility further extends to the performance of audits within the Company to assure management that the established requirements and procedures are being implemented, and that the Program complies with the baseline document requirements.

The organizational freedom of the Quality Assurance function is accomplished through the corporate structure, illustrated in Appendix A, which provides independence from those departments responsible for design, procurement, engineering, construction and operation. With quality assurance as its sole function the Quality Assurance Department, both on-site and off-site, is completely free from the cost and scheduling pressures of design, procurement, construction and operation. The Quality Assurance Department has the freedom and authority to: a) identify quality problems; b) initiate, recommend or provide corrective action; c) verify implementation of the corrective action; and d) recommend the stoppage of work or operations adverse to quality, when necessary. The Quality Manager - Juno Beach, the Site Quality Manager - St. Lucie and the Site Quality Manager - Turkey Point report administratively and functionally to the Vice President Nuclear Assurance. These reporting relationships assure that the Quality Assurance Department has direct access to the levels of management necessary to assure effective implementation of the Quality Assurance Program.

1.2.1.3 (Cont'd)

The Quality Manager - Juno Beach directs and administers the Corporate Quality Assurance Program, including developing and verifying implementation of policies, plans, requirements, procedures and audits which assure compliance with the baseline documents listed in Appendix C of this Topical Quality Assurance Report.

The duties, responsibilities, and authorities of each Quality Assurance group are described in the sections which follow.

1) Quality Assurance Services Group

Quality Assurance Services, reporting to the Quality Manager - Juno Beach, consists of the Quality Assurance Systems and Audits Group, the Quality Assurance Procurement Group, and the NDE Level III.

Quality Assurance Systems and Audits is responsible for the development and maintenance of the overall Quality Assurance Program, including the following:

- o develop and maintain the Quality Assurance Department Quality Instructions, Quality Assurance Department Training & Organization Manual, and the corporate Quality Assurance Manual; including the administration of the Quality Assurance Program Review Committee (QAPRC)
- o assist other departments in the development of Quality Instructions by review and comment and through interpretation of corporate Quality Assurance requirements;
- o develop and implement a Quality Assurance indoctrination program for FPL personnel, and a training program for the Quality Assurance Department;
- o prepare reports on Quality Assurance Program activities for review by the Company Nuclear Review Board;

1.2.1.3 (Cont'd)

- maintain a file system for documentation of quality assurance activities performed by the Quality Assurance Department;
- review Regulatory Guides, Codes, SAR Document Commitments and Standards for impact on the Quality Assurance Program and recommend appropriate program changes;
- review documents submitted to the Company Nuclear Review Board (CNRB) as requested by the Quality Assurance Department CNRB member;
- plan, coordinate and implement a comprehensive system of periodic internal audits with support from the other Quality Assurance groups, when necessary;
- review FPL originated design specifications for inclusion of appropriate quality requirements.

Quality Assurance Procurement is responsible for assuring the quality of safety-related items and services, and their vendors, including the following:

- assist in the development and implementation of policies, plans, requirements and procedures for the requisition and purchase of materials, equipment and services related to nuclear power plants and to the acceptance and storage of equipment and material;
- perform appropriate surveillance of hardware during manufacture;
- develop and implement a program for auditing of supplier Quality Assurance/Quality Control programs including architect/engineer/ Nuclear Steam Supply System Suppliers;
- assure design-related activities performed by the Architect Engineer meet the quality aspects of the contract;
- review and approve FPL procurement documents and changes to these documents to assure that the necessary quality requirements are imposed;
- assist other FPL departments in the identification of quality problems associated with procurement and storage; initiate, recommend, or provide solution; and verify implementation of solutions;

1.2.1.3 (Cont'd)

- o review, approve and periodically audit the execution of FPL contractor quality assurance programs;
- o maintain a file system for documentation of quality assurance activities performed by the Quality Assurance Procurement group;
- o evaluate the Quality Assurance capability of suppliers requested by the Nuclear Materials Management Department and maintain the Quality Assurance Department "Approved Suppliers List".

The responsibility of this group, in terms of phases of procurement, begins with the preparation of the procurement document, extends through receipt of shipment or performance of contract.

This group, through audits and surveillances, assures that the contractors' organizations performing Quality Assurance functions have sufficient authority and organizational freedom to implement effective Quality Assurance programs.

The NDE Level III is responsible for technical direction and monitoring the NDE activities performed by Quality Control at the plant sites (PTN and PSL). He is responsible for preparation, revision and implementation of NDE procedures, and the training, testing and qualification of NDE personnel performing these activities. He is also responsible for providing the programs and direction for performance of NDE activities meeting the ASME, AWS and other NDE code requirements.

2) Site Quality Assurance Groups - Turkey Point Nuclear (PTN) and St. Lucie (PSL)

Quality Assurance activities at the plant sites (PTN and PSL) are accomplished by the respective site Quality Assurance Groups, reporting to the Site Quality Manager. The Site Quality Manager has responsibility for on-site development and implementation of the Quality Assurance Program, including the following:

1.2.1.3 (Cont'd)

- coordinate the development and implementation of policies, plans, requirements, and procedures for portions of the quality assurance program related to the operation and modification of nuclear power plants at the plant site;
- perform audits, assessments and other observations as specified in procedures and instructions to verify compliance with Quality Assurance Program commitments, identify quality problems and ensure timely corrective actions are taken in the areas of plant operation, system turnover, modification and maintenance; including such areas as refueling, inservice inspection and testing, procurement of spare/replacement parts, material storage, health physics, chemistry, plant security and fire protection;
- identify requirements, ensure inclusion of commitments in documents and verify implementation of the Quality Assurance Program during construction activities at the plant site through audits of FPL and contractor organizations;
- recommend stoppage of work or operations adverse to quality at the plant site in accordance with the appropriate Quality Procedures;
- review and comment on Quality Instructions or equivalent quality-related administrative procedures prior to issue, with respect to the requirements of the FPL Quality Assurance Program, the applicable Final Safety Analysis Report, and the applicable Technical Specifications;
- assure that the status is tracked for all open items identified by the Site Quality Assurance group, and inform appropriate management when there is an indication that a commitment will not be met on time;
- maintain a file system for documentation of quality assurance activities performed by the Site Quality Assurance group;
- review backfit procedures with respect to the FPL Quality Assurance Program (for procedure review requirements see TQR 5.0);
- review site generated FPL procurement documents and changes to procurement documents in accordance with the appropriate Quality Procedures;

1.2.1.3 (Cont'd)

- o perform audits of the architect engineer and Nuclear Steam Supply System suppliers both on-site and off-site, in conjunction with the Quality Assurance Procurement group.

The interface with the Quality Assurance Procurement group ends with the receipt of a shipment of nuclear safety-related equipment at the plant site. The Quality Assurance program for the shipment is then within the purview of the Site Quality Assurance group.

The Quality Manager - Turkey Point and Quality Manager - St. Lucie are additionally responsible for the establishment and implementation of quality control aspects of the Quality Assurance Program at the plant site. Reporting directly to the Site Quality Manager are the Quality Control Supervisors who have the authority and freedom to administer the Quality Control program and, when necessary, to stop activities adverse to quality. The Quality Control Supervisors and personnel performing Quality Control inspection functions are required to be independent of groups or persons performing activities that they may be required to verify or inspect. Quality Control efforts include preparation and review of plant procedures, PCMs, and quality-related instructions; Quality Control personnel are also responsible for inspection, monitoring, surveillance, and review of plant activities to verify compliance with the provision of the facility operating license and the Quality Assurance Manual. Inspections are also performed to assure that backfit activities meet the requirements of engineering drawings, specifications, codes and standards. This responsibility extends from receipt inspections of material on-site to acceptance of the installed items prior to turnover to the Plant. It also includes verification of conformance of an item or activity accomplished during this period to quality requirements (e.g., records review, NDE, inspections). The Quality Control Supervisors shall take corrective action for deficiencies identified, where applicable, and shall follow up on corrective action taken by other organizations until close out.

1.2.1.3 (Cont'd)

Off-site interfaces for the resolution of quality-related problems and NRC items are with Nuclear Corporate Staff, FPL support departments as indicated in this Topical Quality Assurance Report, the architect engineer and the Nuclear Steam Supply System (NSSS) Quality Assurance Department. The Site Quality Assurance group interfaces with the Plant Vice President and his staff on-site by assisting in the resolution of quality-related problems.

c. Nuclear Safety Speakout

The Manager Nuclear Safety Speakout has responsibility for the management and implementation of the Nuclear Safety Speakout Program. Speakout provides a forum for employees and contractors to communicate their concerns to FPL. Concerns are documented, investigated and corrective actions are taken when necessary. The program offers confidentiality. Reporting to the Manager Nuclear Safety Speakout are the Turkey Point and St. Lucie Speakout Supervisors.

1.2.1.4 Nuclear Analysis and Controls

The Manager Nuclear Analysis and Controls, reporting to the President Nuclear Division, is responsible for coordinating the budget, rate, and cost control support to the plants and staff organizations; and coordinating Division business planning, target setting and monitoring of key performance indicators, and operations analysis activities.

1.2.2 <u>Support Departments</u>

Providing support activities for the Nuclear Division are the Corporate Secretary, Environmental Affairs, Protection & Control Systems, and Information Management. The reporting relationship of each department is described in the following sections and is shown in Appendix A.

1.2.2.1 Corporate Secretary

Reporting to the Corporate Secretary are the Manager Corporate Records Services and the Supervisor Documentary Files.

a. Corporate Records Services

The Manager Corporate Records Services is responsible for: ensuring the Quality Assurance records program activities are managed in accordance with applicable laws and regulations; assisting with the development and implementation of effective and compatible records and micrographics programs; developing, approving and maintaining record retention schedules; establishing parameters for indexing in the corporate records' computerized Record Management System (RMS); locating acceptable record storage areas when requested; storage, retrieval and control of records/documents as requested by other departments; leading the evaluation of specially designated "Quality Assurance approved" storage facilities and maintaining the records of this evaluation.

b. Documentary Files

The Supervisor Documentary Files is responsible for receiving, maintaining, retrieving and storing the Quality Assurance records in connection with licenses and contracts received from other departments.

1.2.2.2 Environmental Affairs

Environmental Affairs is responsible for obtaining the federal and state environmental permits required for FPL facilities and operations. Environmental Affairs is responsible for overall coordination of non-radiological environmental monitoring (federal and state) programs at the nuclear power plant sites.

1.2.2.2 (Cont'd)

The Manager Hazardous Substances Regulation, the Manager New Construction Licensing and Planning, the Manager Air and Water Permitting and Programs, the Chief Ecologist, and the Environmental Toxicologist report to the Director Environmental Affairs. The Director Environmental Affairs has overall responsibility for implementation of the Environmental Protection Plans at nuclear power plant sites and reports to the Senior Vice President of External Affairs.

The Environmental Affairs Department through its management of the Company Environmental Review Group (CERG) is responsible for overall coordination of environmental monitoring programs and requirements related to the Environmental Protection Plans. The CERG provides review of proposed changes to the Environmental Protection Plans, review of any violations of monitoring and/or limitation requirements of federal and state permits and Environmental Protection Plans and review of plant activities as described in those Environmental Affairs Department Environmental Procedures subject to QA requirements.

The CERG provides information to the Director Environmental Affairs and the CNRB Chairman on environmental matters for which requirements are included in Environmental Protection Plans.

1.2.2.3 Protection & Control Systems

Protection & Control Systems is responsible for test, calibration and maintenance of certain high voltage electrical protective relays for safety-related systems of the nuclear plant. Activities of Protection & Control Systems include final wiring connection checks, preoperational check-out and test of system protection devices and providing inspection of equipment under their cognizance. Additional responsibilities include providing certain setpoint and checkpoint values for protective devices.

The Director of Protection & Control Systems reports to the Vice President of Power Delivery.

1.2.2.4 Information Management

Information Management consists of Computer Operations, Client Services, and Quality Management reporting to the Vice President of Information Management.

The Computer Operations Department is responsible for the installation and maintenance of the operating system software and the operation of the computer hardware for FPL's corporate computer systems. The application programs used by the nuclear departments executes on these corporate computers.

The Manager Computer Center, the Manager Operations Support Services, and the Manager Technical Systems report to Manager Computer Operations .

Client Services is responsible for software libraries on FPL's in-house time-sharing Computer System (CMS) that are under its control.

Quality Management provides support to the Nuclear Division in their development and maintenance of computer applications in the area of software library controls.

9.1 GENERAL REQUIREMENTS

Measures shall be established to assure that special processes such as welding, heat treating, and nondestructive examination, are controlled and accomplished by qualified personnel using qualified procedures and equipment in accordance with applicable codes, standards, specifications, criteria, and other special requirements.

9.2 IMPLEMENTATION

Nuclear Engineering or the delegated contractor organization, as appropriate, shall include special process requirements in their design outputs and changes thereto. Special processes used during plant operations shall be the responsibility of the plant manager, who shall ensure that procedures are developed, reviewed, approved and controlled, and that personnel and equipment are qualified.

9.2.1 Identification of Special Processes

Special processes are those processes which must be qualified and controlled where quality is highly dependent on close control of process variables or operator skills, and objective verification (inspection, examination or testing) of end quality is difficult.

As a further clarification, special processes identified as such by applicable codes and standards shall be controlled, qualified, and implemented in accordance with those codes and standards. Examples of special processes include (but are not limited to) welding, heat treating, and nondestructive examination. Others, i.e., flushing, protective coating, plating applications and nuclear cleaning should be reviewed to determine if they are special processes.

9.2.2 Procedure Qualification and Control

Process control procedures written by FPL organizations or their contractors shall be used and qualified as required by applicable specifications, codes, or standards.

9.2.2 (Continued)

Where FPL assigns work to outside contractors, the contractors shall make their procedures and personnel qualifications available for review to FPL prior to the start of work. The Architect/Engineer, Nuclear Steam Supply System vendor, or other organization designated by FPL shall be responsible for the evaluation and acceptance of on-site contractor special process procedures, and shall interface with the appropriate FPL department, as necessary, to resolve review comments with the contractor. The contractor shall also be responsible for the control and approval of sub-contractor procedures.

9.2.3 Personnel Qualification and Certification

Procedures or instructions shall specify personnel qualification and certification requirements. Personnel responsible for the performance and verification of special processes shall be trained, tested, and certified as required by applicable specifications, codes and standards. Requirements for the period of certification, retesting, and recertification of personnel shall also be specified. Contractors shall qualify personnel and maintain records of qualified personnel in accordance with applicable codes, standards, specifications, and contract or procurement document requirements.

9.2.4 Special Process Records

The Services Manager is responsible for retention of records. The Plant General Manager is responsible for the review of records. Records shall provide objective evidence that special processes were performed in compliance with approved procedures by qualified personnel and equipment. Records shall also be maintained for verifica-tion activities when required by procedure, code or specification. Results of nondestructive examinations shall be recorded in accordance with applicable specifications, codes and standards. These records shall be retained by the vendor or supplied to FPL as required by contract or purchase orders. If records are to be retained by the vendor, the contract or purchase order shall specify the retention period and instructions for final disposition of such records.

9.2.4 (Continued)

For backfit activities, the Quality Control organization is responsible for the review of nondestructive examination documents for acceptance. The Site Construction Services Manager is responsible for assuring that documents for special processes utilized for modifications are properly collected, reviewed, accepted and transmitted for retention of records.

14.1 GENERAL REQUIREMENTS

Measures shall be established to indicate by the use of markings such as stamps, tags, labels, routing cards or other suitable means, the status of inspections and tests performed on material, equipment, or systems. These measures shall provide for the identification of items which have satisfactorily passed required inspections and tests. Measures shall also be established for indicating the operating status of structures, systems and components to prevent inadvertent operations.

14.2 IMPLEMENTATION

14.2.1 General

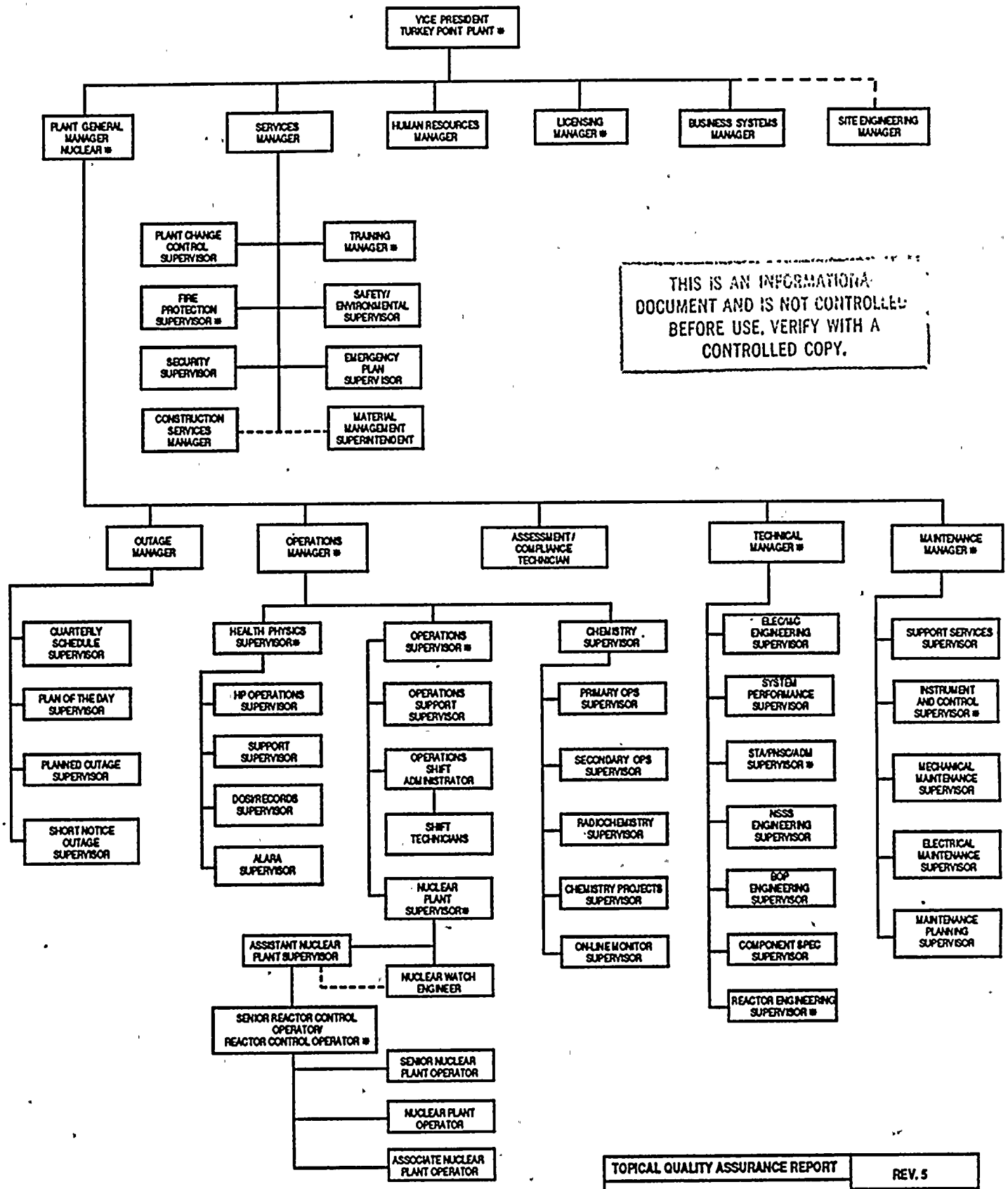
For operations activities, the Nuclear Division is responsible for establishment and maintenance of a suitable system for identifying the inspection, test, and operating status of materials, equipment, systems, and components. For plant modifications assigned to Nuclear Construction Services Department or when requested by the Plant General Manager, the Site Construction Services Manager is responsible for establishing a suitable system for identifying, inspecting and testing for material, equipment, systems and components which is approved by Nuclear Operations. Each system shall be established, implemented and maintained in accordance with written Quality Procedures and Quality Instructions. The Architect/Engineer or Contractors shall develop and implement procedures to comply with contractual responsibilities, and applicable codes, standards, specifications, and criteria governing the status identification of procurement items being tested, installed, or fabricated. The Architect/Engineer (where applicable), suppliers and contractors shall be required to maintain a system for identifying the inspection, test and processing status of materials, parts, and components. Elements of this system require that suppliers and contractors have a controlled manufacturing and test operation in order to preclude the inadvertent bypassing of processing, inspections or test, and to provide a positive identification of component status throughout all phases of manufacturing, testing, and inspecting, by means of tagging, routing cards, stamping, manufacturing or test reports,

14.2.1 (Continued)

labeling or other appropriate methods. The Vice Presidents - Turkey Point or St. Lucie and the Quality Assurance Department shall verify adequacy of the controls established and implemented, as appropriate for their site.

14.2.2 Status Identification and Control

Quality Procedures and Quality Instructions shall describe control of the application and removal of markings such as stamps, tags, labels, routing cards, and other suitable means to indicate the status of non-operational, nonconforming, or malfunctioning nuclear safety related structures, systems and components to prevent inadvertent operation, and to prevent omission of inspections, tests, or other critical operations. These procedures and instructions shall delineate the requirements, methods and responsibilities for indicating the status of the affected items. These procedures will clearly delineate the individuals or groups responsible for application and removal of status indicators.



* - Indicates position with accountabilities in Technical Specifications.

TOPICAL QUALITY ASSURANCE REPORT	REV. 5
TURKEY POINT NUCLEAR SITE ORGANIZATION FIGURE 1-2 APPENDIX A	1/15/92
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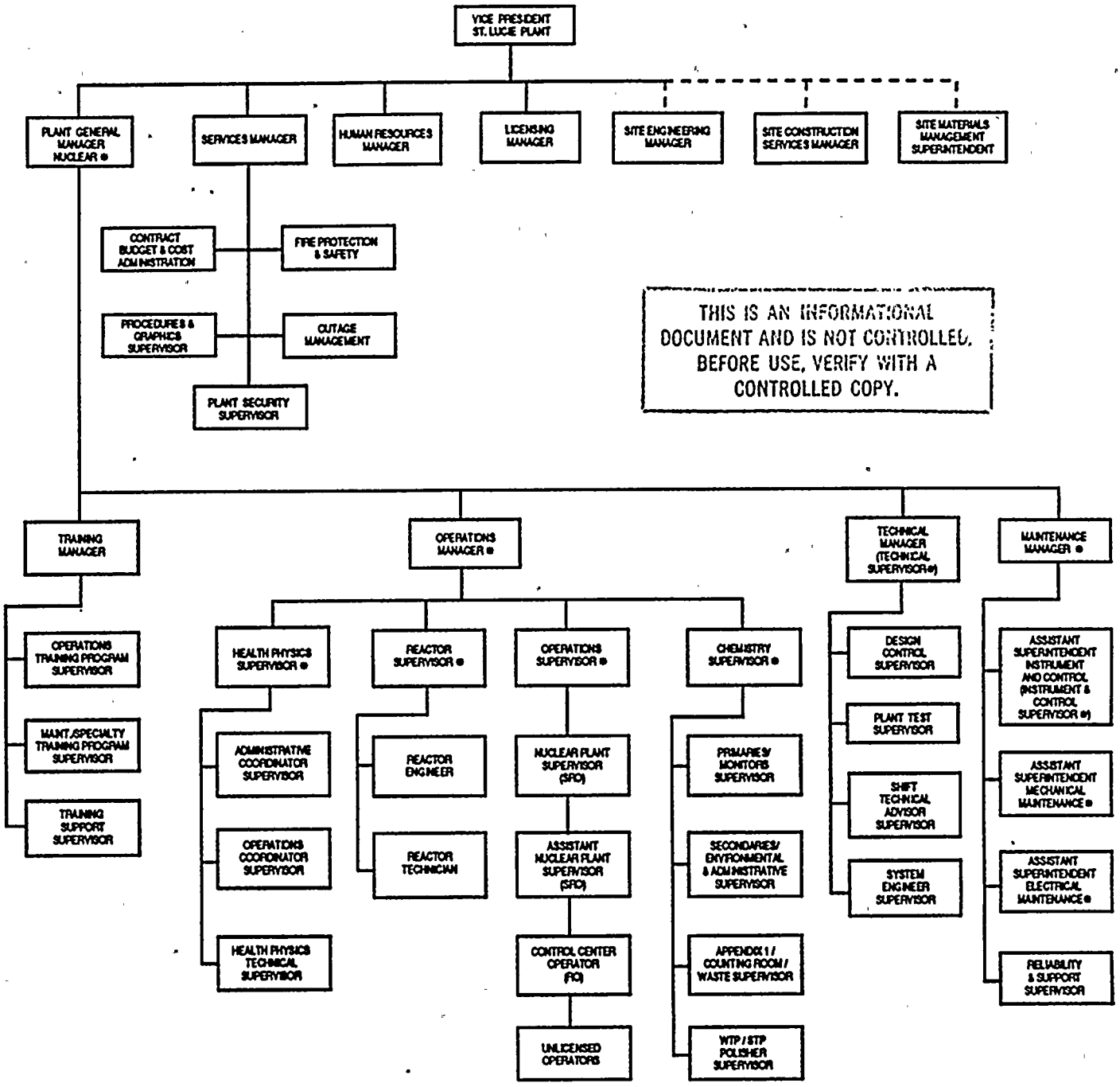

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TOPICAL QUALITY ASSURANCE REPORT	REV. 6
ST. LUCIE PLANT, UNITS 1 & 2 SITE ORGANIZATION FIGURE 1-3 APPENDIX A	01/15/92
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● - Indicates position with accountabilities in Technical Specifications. Where multiple titles occur, the first position listed shall act in the capacity of the other listed titles.

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3.1 GENERAL REQUIREMENTS

A Quality Assurance Program shall be established for design-related activities. This design control program shall ensure that the design is defined, controlled and verified; that applicable design inputs are specified and correctly translated into design output documents; that design interfaces are identified and controlled; that design adequacy is verified by persons other than those who designed the item; and that design changes, including field changes, are governed by control measures commensurate with those applied to the original design.

Design records shall be developed to provide evidence that the design process and design verification were performed in accordance with the requirements of FPL's Quality Assurance Program. The design organization (Nuclear Engineering or designated contractor organization) shall be responsible for the content of these records.

Design records shall include design output documents and the important steps in the design effort. The intent of this documentation is to allow a technically qualified person to understand how the design was developed, and to allow that person to verify the design based on the design documentation and engineering data sources referenced therein.

3.2 IMPLEMENTATION

The design organization's Quality Assurance Program for design control shall be approved by the FPL Quality Assurance Department prior to the release of approved design output by the design organization. The design organization is the organization responsible for approval of design output. Quality Procedures and Quality Instructions shall be developed to delineate design control requirements governing design-related activities performed by Nuclear Engineering and for delegating activities to contractor organizations.

3.2.1 Design Process

The design organization shall specify and document its design activities to the level of detail necessary to permit the design to be developed in a correct manner and to permit verification that design output documents satisfy design input requirements.

Design methods, materials, parts, equipment and processes, including those associated with commercial grade items that are essential to the function of the structure, system or component shall be selected, reviewed and approved for suitability of application by the design organization.

Design inputs shall be identified, documented, reviewed and approved by the design organization. They shall be specified to the level of detail necessary to permit the design activity to be carried out in a correct manner, and to provide a consistent basis for making design-related decisions, performing design verification and evaluating design changes. Changes to approved design inputs, including the reason for the changes, shall be approved, documented and controlled by the design organization.

The design organization shall identify aspects of manufacture, construction, inspection and testing critical to achieving the function of the structure, system or component. Quality standards and quality requirements shall be specified on design output documents. Changes from approved quality-related requirements specified in design output, including the reason for the changes, shall be approved, documented and controlled by the design organization.

Design analyses shall be controlled and documented. Approved design output documents and approved changes thereto shall be relatable to the design input by documentation in sufficient detail to permit verification. The design organization shall establish procedures to review industry design experience. As appropriate, this experience shall be made available to cognizant design personnel.

3.2.2 Design Change Control

Changes to approved design output documents, including field changes, shall be justified, subjected to control measures commensurate with those applied to the original design, and shall be reviewed and approved by the same design organization that approved the original design unless other organizations are specifically designated.

Where a significant design change is necessary because of an incorrect design, Nuclear Engineering shall determine the cause of the incorrect design. As necessary, design and verification procedures shall be reviewed and modified to correct the cause of the incorrect design.

During the operations phase, design changes shall also be reviewed by operating plant management and Quality Control. The intent of this review is to ensure that implementation of the design change is coordinated with any necessary changes to operating procedures and practices, and required Quality Control Surveillance activities.

In accordance with plant technical specification requirements, nuclear safety-related design changes are reviewed by the Plant Nuclear Safety Committee (PNSC) or Facility Review Group (FRG) and the Company Nuclear Review Board (CNRB).

3.2.3 Design Interface Control

The design organization shall be responsible for identification, control, resolution and documentation of design interface requirements. Procedures shall establish interface controls between participating organizations and between the various technical disciplines within the design organization. These procedures shall include the assignment of responsibility, and be in sufficient detail to cover the preparation, review, approval, release, distribution and revision of design output documents.

3.2.3 (Continued)

For interdisciplinary design, approval documentation of each involved discipline of the design organization shall appear on the design output document or on a separate document directly traceable to the design output. The design organization shall designate a discipline(s) responsible for resolution of the comments of participating organizations. The designated discipline(s) approval of a design output shall also document resolution of the comments of participating organizations.

3.2.4 Design Verification

Design control measures shall be established to independently verify the design inputs, design process, and that design inputs are correctly incorporated into design output. The design organization shall develop procedures that govern design verification. These procedures shall require that the design organization identify and document the verification method utilized and that the documentation clearly identify those individuals performing the design verification.

Design verification shall be performed by technically qualified individual(s) or group(s) other than those who performed the design. The original designers and verifiers may both be from the design organization. Design verification by the designer's immediate supervisor shall be limited to those instances where the supervisor is the only qualified individual available within the design organization. These instances are further restricted to designs where the supervisor did not specify a singular design approach, or did not restrict design methods or alternatives, or did not specify design inputs (unless the specified design inputs have already been independently verified). Justification for verification by the designer's immediate supervisor should be documented along with the extent of the supervisor's involvement in the design.

The design organization shall be responsible for determining the extent of design verification and methods to be employed. The methods may include one or more of the following: the performance of design reviews, the use of alternate calculations, or the performance of qualification tests. This shall apply to original design and to changes to approved design output.

3.2.4 (Continued)

Where reverification is not required for a design change, the bases shall be documented by the design organization. Cursory supervisory reviews and mathematical checks for calculation accuracy do not satisfy the independent design verification requirement. Design verification shall normally be completed prior to release of design output for procurement, manufacture or release by the design organization for use in design activities by a participating organization. Verification shall be conducted based on the status of design at the time of release of design documents. Where this timing cannot be met, verification may be deferred provided that the unverified portion of the design output, and all design output documents, structures, systems and components based on the unverified portion of design are identified and controlled. In all cases verification shall be completed prior to relying on any affected items to perform their design functions.

3.2.5 Computer Programs/Software

Organizations utilizing computer programs/software as a method for design shall maintain instructions or procedures to effect the following:

1. That such programs/software are verified for their particular use using benchmark problems, alternate calculations, comparison with other code or experimental results, design review or similar methods,
2. That such programs/software have been qualified for their specific application sufficient to ensure valid results,
3. That such programs/software are provided with user instructions sufficient for a technically competent individual to follow,
4. That configuration controls are provided to assure that such programs/software changes or modifications are documented and controlled.

4.1 GENERAL REQUIREMENTS

Procurement of items and services shall be performed in accordance with procedures which assure that applicable regulatory requirements, design bases, code requirements, and other requirements necessary to assure quality shall be included or invoked by reference in the procurement document. These procedures shall delineate the sequence of actions to be accomplished in the preparation, review, approval, and control of procurement documents. Changes to procurement documents shall be subjected to the same degree of control as utilized in the preparation of the original documents.

4.2 IMPLEMENTATION

4.2.1 Procurement Document Provisions

Quality Procedures and Quality Instructions shall identify the responsibilities and actions required of the organizations originating, reviewing, approving, and controlling procurement documents. These procedures shall require the procurement documents to specify:

a. The scope of work to be performed.

b. Technical requirements (by specifying or referencing) which shall include the applicable components and materials identification requirements, drawings, specifications, procedures, instructions, codes, and regulations and provide for identification of applicable test, inspection and acceptance requirements, or special process instructions.

c. Quality Assurance Program requirements to be imposed on contractors which shall include the applicable portions of 10 CFR 50, Appendix B.

d. Right of access which provides, as appropriate, for access to contractor facilities and records for inspection or audit by FPL or its designated representative, and to access for events such as witness and hold points.

4.2.1 (Continued)

e. The documentation required to be prepared, maintained, and/or submitted to FPL or its representative for review, approval, or historical record. The time of submittal of this documentation and the retention and disposition of quality assurance records which will not be delivered to FPL shall be prescribed.

Consideration shall be given to the need for special requirements in the preparation and review of procurement documents. Procedures and instructions shall be prepared and implemented for special on-site handling or storage requirements. The receiving department shall be responsible for on-site implementation of the special handling, shipping, and storage requirements for items received and controlled by their organization.

Special handling, preservation, storage, cleaning, packaging, and shipping requirements shall be specified, as appropriate, in the design documents or purchase orders. The requirements established in the design documents or purchase orders shall be consistent with industry accepted standards, the importance of equipment or material to nuclear safety, and the material or equipment's sensitivity to damage. The preparation of these design documents or purchase orders may be delegated by FPL to other organizations.

4.2.2 Procurement Document Review

Procurement documents shall be reviewed for correctness, and inspectability and controllability of quality requirements in accordance with Quality Procedures and Quality Instructions to assure that the appropriate provisions of Section 4.2.1 are included. This review shall be documented and performed by designated technical and quality evaluators, and shall assure that the procurement document was prepared, reviewed and approved as required. Spare or replacement parts for safety-related structures, systems, and components are subject to technical or quality requirements equivalent to or better than those used for the original equipment.

4.2.2 (Continued)

Changes to procurement documents, whether initiated by FPL or their representative, are subjected to the same degree of control as that utilized in the preparation of the original document.

4.2.3 Selection of Procurement Sources

The Nuclear Materials Management Department shall verify that the procurement document has been reviewed and approved, and that the supplier has been approved prior to issuing the purchase order for safety related materials or services. Supplier approval is not necessary if the important characteristics of the item can be verified by inspection or test.

The overall procurement requirements including those related to planning, bid evaluation, and review and concurrence of suppliers Quality Assurance programs are described in Quality Procedures and Quality Instructions.

6.1 GENERAL REQUIREMENTS

The distribution of documents such as instructions, procedures, drawings, and software which provide guidance, specifications, or requirements affecting the quality of nuclear safety-related structures, systems, and components shall be controlled. These documents shall be prepared, reviewed for adequacy, and approved for release by authorized personnel in the affected organization. These documents shall be distributed to locations where the activity is performed.

Changes to controlled documents shall be so identified and shall be reviewed and approved by the same organization that performed the original review and approval unless otherwise specified in the implementing procedures. In addition, procedures shall preclude the possibility of use of outdated documents.

6.2 IMPLEMENTATION

6.2.1 Responsibility

Quality Procedures shall delineate the control measures for controlled documents including direction for the review for adequacy, approval by authorized personnel, distribution of controlled documents and verification that changes are received. These control measures shall apply to documents affecting the quality of nuclear safety-related structures, systems, and components such as:

a. design specifications;
b. design, manufacturing, construction, and installation drawings;
c. quality program manuals, procedures, and instructions;
d. inspection, manufacturing, and test procedures and instructions;
e. plant operating and maintenance procedures;
f. plant Safety Analysis Reports and related design criteria documents.

6.2.1 (Continued)

The requirements for control of procurement documents are contained in TQR 4.0.

During all phases of the plant life, it shall be the responsibility of each organization issuing and using controlled documents to use document control procedures. Procedures shall document the responsibility for review, approval, maintenance and distribution of documents including assuring revisions are initiated to interfacing documents within their organization.

During the design and construction phase and for operating plant changes under their cognizance, the Architect/Engineer, Nuclear Steam Supply System vendor, and other contractors shall be responsible for assuring that all revisions required as a result of FPL comments, nonconformances, or engineering work are incorporated into revised documents.

6.2.2 Distribution of Controlled Documents

Quality Procedures shall specify that controlled documents and revisions be distributed to locations where the activity is performed.

6.2.3 Drawing Control

FPL assumes control of the drawings and Master Drawing List after initial operation of the facility or delegates this activity to a qualified contractor. Nuclear Engineering shall require that participating design organizations update the drawings and Master Drawing List to reflect the as-built conditions of the facility prior to FPL's acceptance of these documents.

Maintenance, distribution and control of the drawings and the Master Drawing List by FPL during the operation phase shall be assigned to a drawing custodian. Revision to drawings shall be approved prior to release by the drawing custodian, approval shall be by Nuclear Engineering, or a designated design organization.

6.2.3 (Continued)

During the operation phase a system shall be established to provide ready access and availability of drawings to engineering and operations personnel; to identify drawings affected by approved plant design changes; and to update drawings and the Master Drawing List to reflect implemented design changes.

6.2.4 Design Documents Other Than Drawings

Ascertaining that proper design documents are accessible and are being used may be accomplished by periodic issuance of master document lists showing the latest applicable revision, or by a document receipting system.

6.2.5 Instruction & Procedure Control

Participating organizations shall be responsible for development, maintenance and control of those documents identified in paragraph 6.2.1 issued by them as controlled documents. Each organization shall be responsible for the adequacy of their procedures.

6.2.6 Obsolete Documents

Controls established by Quality Procedures and Quality Instructions shall assure that outdated copies of controlled documents are not inadvertently used.

BASELINE DOCUMENT MATRIX

This topical report contains the program requirements for Florida Power & Light Company's Quality Assurance Program. The Quality Assurance Program is described in detail in the Florida Power & Light Company Quality Assurance Manual.

The Regulatory Guides, codes, and standards specifically listed in the matrix of this appendix (on page 2) represent the baseline documents used in the preparation of FPL's QA Manual and this topical report. These documents, therefore, provide the basis for the FPL QA Program, but they are not considered to be part of the QA Program unless specifically addressed in the applicable SAR, technical specifications, etc.

The FPL Quality Assurance Program meets the requirements of the documents referenced in this appendix. Any alternatives or clarifications made to the requirements contained in these documents are stated on pages subsequent to the second page of this appendix.

BASELINE DOCUMENT MATRIX

GOVERNMENT DOCUMENT	DATED	REFERENCE INDUSTRY STANDARD	DRAFT REV. ISSUED DATE
10 CFR PART 50, APPENDIX B	2/19/75	ANSI-N45.2	1971
10 CFR PART 50.55a		ASME B&PV Code Section III & XI	Specified in the SAR document of the respective plant
Regulatory Guide 1.8 Rev. 1	9/75	ANSI-N18.1 ANSI/ANS 3.1	1971 1978
Regulatory Guide 1.28	6/7/72	ANSI-N45.2	1971
Regulatory Guide 1.30	8/11/72	ANSI-N45.2.4	1972
Regulatory Guide 1.33 Rev. 2	2/78	ANSI-N18.7	1976
Regulatory Guide 1.37	3/16/73	ANSI-N45.2.1	1973
Regulatory Guide 1.38 Rev. 2	5/77	ANSI-N45.2.2	1972
Regulatory Guide 1.39 Rev. 2	9/77	ANSI-N45.2.3	1973
Regulatory Guide 1.58 Rev. 1	9/80	ANSI-N45.2.6	1978
Regulatory Guide 1.64 Rev. 2	6/76	ANSI-N45.2.11	1974
Regulatory Guide 1.74	2/74	ANSI-N45.2.10	1973
Regulatory Guide 1.88 Rev. 2	10/76	ANSI-N45.2.9	1974
Regulatory Guide 1.94 Rev. 1	4/76	ANSI-N45.2.5	1974
Regulatory Guide 1.116	6/76	ANSI-N45.2.8	1975
Regulatory Guide 1.123 Rev. 1	7/77	ANSI-N45.2.13	1976
Regulatory Guide 1.144 Rev. 1	9/80	ANSI-N45.2.12	1977
Regulatory Guide 1.146	8/80	ANSI-N45.2.23	1978

Florida Power & Light Company position regarding conflicting guidance and exceptions:

TQAR Appendix C Clarification, ANSI/ANS 3.1 - 1978 (PSL-2)

The Regulatory Guides and industry standards listed in Appendix C to the Topical Quality Assurance Report take precedence over any Regulatory Guide or industry standard which may be referenced in any one of these documents.

Regulatory Guide 1.8, Rev. 1, ANSI N18.1-1971, ANSI/ANS 3.1 (PSL-2)

ANSI N18.1 describes the training and education requirements for plant staff positions and is endorsed by Reg. Guide 1.8 with an exception. That exception is the requirements for the Supervisor - Radiation Protection. ANSI N18.1 is invoked by Technical Specifications (Appendix A of the Facility Operating License) at the Turkey Point plants and PSL-1. ANSI/ANS 3.1-1978 is invoked by Technical Specification at PSL-2. Reg. Guide 1.8 is also invoked by Technical Specifications at our St. Lucie plant and a license amendment has been approved for our Turkey Point plant to specify the Health Physics Supervisor qualifications addressed in Reg. Guide 1.8.

To avoid duplication of requirements, FPL will address Plant Staff Qualifications in only the Technical Specifications.

Regulatory Guide 1.30/ANSI N45.2.4-1972

ANSI N45.2.4-1972, Paragraph 2.3 addresses installation specifications and requires the inclusion of inspection and test objectives. FPL maintains that test values and inspection scope are inherently contained in the applicable procedures.

ANSI N45.2.4-1972, Paragraph 6.1.2 requires that the inspection of installed equipment verify that "good and proper workmanship" has prevailed. FPL maintains that acceptable parameter compliance with codes and standards along with company preference is the verification of "good and proper workmanship".

ANSI N45.2.4-1972, Paragraph 6.2.1 requires that "Items requiring calibration shall be tagged or labeled on completion indicating date of calibration and identity of person that performed the calibration." In lieu of tagging or labeling equipment, FPL has chosen to control calibration of installed instrumentation and control equipment by maintaining records for each piece of equipment by instrument tag number (or equivalent) to show that established schedules and procedures for calibration have been followed.

Regulatory Guide 1.33, Rev. 2, ANSI N18.7 - 1976

FPL's method of addressing Paragraphs 4.0, 5.2.2, 5.2.15 and 5.3 of ANSI 18.7 - 1976 as modified by Regulatory Guide 1.33, Rev. 2 is covered in Section 6 of each individual plant's Technical Specifications.

ANSI N18.7-1976, Section 4.3, requires that personnel performing the independent review and audit be specified in number and technical discipline. This standard is invoked by the Technical Specifications (Appendix A of the Facility Operating Licenses) which have been approved for the FPL nuclear plants at St. Lucie and Turkey Point. Specifically this function is performed by the Company Nuclear Review Board (CNRB) identified in Section 6.5.2 of the Technical Specifications.

To avoid duplication of requirements, FPL will address the personnel and functions of this independent review and audit only in the Technical Specifications.

FPL's method of addressing Section 5.2 of ANSI N18.7-1976, as modified by Regulatory Guide 1.33, Rev. 2, is by administratively controlling licensed operator hours on shift and by our Duty Call Supervisor system. Further, FPL has developed a response to NUREG 0654 which provides staffing availability.

FPL's method of addressing Paragraph 5.2.8 of ANSI N18.7-1976, as modified by Regulatory Guide 1.33, Rev. 2, is covered in Section 4 of each plant's Technical Specifications.

FPL's method of addressing Paragraph 5.2.9 of ANSI N18.7-1976, as modified by Regulatory Guide 1.33, Rev. 2, is covered in 10 CFR 73 and each plant's Security Plan, and as such is not included in the Quality Assurance Program.

Chemical cleaning is not presently controlled as a special process per se; however, the requirements of ANSI N45.2.1-1973 and Regulatory Guide 1.37 dated 3/16/73 are part of the FPL QA Program and are met in our program. FPL proposes these requirements to be an alternative to the requirements of ANSI N18.7-1976, Paragraph 5.2.18. Further, TQR 9.0, Paragraph 9.2 explains the review of potential special processes and determination of their status as special processes.

FPL meets the intent of Section 5.2.19.3 of ANSI N18.7-1976 as modified by Regulatory Guide 1.33, Rev. 2, as applied to significant changes to operating procedures, by the technical review of the procedure change by knowledgeable plant professionals, by the safety review of the procedure change by the on-site facility review group, by the regulatory and QA review of the procedure by plant Quality Control, by training the licensed operators in the change through the training report system, and by trained, licensed operators using the revised operating procedure and observing the proper result. In addition, procedure changes will be reviewed to assure 10 CFR 50.59 requirements are met.

Paragraph 5.3.5(4) - Clarification - When FPL uses vendor manuals and drawings which provide adequate instructions for maintenance, these documents are attached or referenced with Plant Work Orders which are reviewed and approved by Supervisory and Quality Control personnel and are considered to be adequate procedures in themselves. These vendor manuals and drawings, when received at site, are controlled documents and changes to the applicable sections and instructions of these documents require the same level of review and approval as the operating procedures.

Appendix A of Regulatory Guide 1.33 lists "typical safety related activities which should be covered by written procedures". Regulatory Guide 1.33 is invoked by the Technical Specifications at FPL Nuclear Plants.

In order to avoid duplication of requirements invoked in our licensing documents, the FPL Quality Assurance Program does not list those required operating procedures specified in Appendix A.

Regulatory Guide 1.37/ANSI N45.2.1-1973

ANSI N45.2.1-1973, Paragraph 5 states in part that, "Fitted and tackwelded joints (which will not be immediately sealed by welding) shall be wrapped with polyethylene or other non-halogenated plastic film until the welds can be completed". The FPL QA Manual shall require that the weld be covered to prevent entry of moisture and contaminants but will not specify the material to be employed. Materials employed to cover openings shall meet the requirements of Regulatory Guide 1.37, Position 4.

ANSI N45.2.1-1973, Paragraph 7.1 states in part, "provisions shall be made to collect leakage and protect insulation from being wetted". FPL Quality Assurance Program includes the above requirements. However, FPL's program allows the wetting of metallic type insulations which are not adversely affected by wetting.

ANSI N45.2.1-1973, Paragraphs 7.2.2, 7.2.3, and 7.3 address specific cleaning methods (Alkaline, Chelate, Acid) and make recommendations associated with several types of cleaning methods. FPL's QA manual does not specifically delineate these paragraphs. However, the procedure developed per Paragraph 2.2 of ANSI N45.2.1 will ensure that any specific cleaning method chosen will be properly considered and controlled.

Regulatory Guide 1.38, Rev. 2/ANSI N45.2.2 - 1972

FPL will meet the requirements of Reg. Guide 1.38, Rev. 2, Position 2C, D and E for safety related applications during preoperational and operational activities. Restrictions imposed for tapes to be color contrasting will only be applied to the extent that these colors are dissimilar or otherwise distinguishable. This does not preclude using other tapes when precautions are taken to ensure these tapes do not come in contact with austenitic stainless steel or nickel alloy materials.

Vapor barrier material (other than metal) shall be colored to contrast with or be otherwise distinguishable from safety related systems to prevent undisclosed entry into the system.

These requirements do not apply to components in storage which would require removal of such tapes and barriers to effect installation.

ANSI N45.2.2-1972 Section 2.7 requires that items governed by this standard be classified into one of four levels by the buyer or the contractor. FPL intends to consider what care is appropriate for each item individually rather than generically classifying the material into protection levels and providing care required of that level. The following shall be considered when determining the handling, storage, and shipping requirements:

1. The vendor's recommended handling, shipping, and storage standards.

2. Environmental requirements which may include such requirements as inert gas atmosphere, humidity limits, temperature limits, chemical requirements, acceleration (g force) requirements.

3. Special tools or equipment which are provided and controlled as necessary to ensure safe and adequate handling. These tools or equipment shall be inspected and tested at specified times to verify that they are adequately maintained.

4. Packaging, covering or coatings required to meet environmental requirements such as barrier and wrap material, desiccants, pipe caps, plugs, contact preservatives, etc.

5. Container, crating, skids of sufficient strength to support the item (including stacking).

6. Cushioning, blocking, bracing, and anchoring to prevent movement during shipment or handling.

7. Special handling or storage procedures for unique situations.

8. Marking and identification of the item and its packaging.

9. Anticipated "shelf life" of the item.

FPL considers this to be a more effective approach since the quantity of spare and replacement material, parts and components governed by this standard will be afforded protection commensurate with the recommendations of Section 2.7 of this standard.

ANSI N45.2.2-1972 Sections 3.0, 4.0, and the Appendix address all the requirements applicable to the packaging and shipping of material. FPL in general does not package or ship material governed by this standard. Suppliers of material are required by purchase order to provide adequate packaging and shipping protection. Isolated cases of material packaging or shipping are treated on a case-by-case basis and receive protection comparable to that required by the manufacturer of that material. Loading, rigging and handling precautions identified in Section 4.3 are applied to material unloaded by FPL from a transport vehicle.

ANSI N45.2.2-1972 Section 5.2 requires that specific attributes of material and components received by FPL be inspected. For plants with operating licenses FPL verifies conformance to procurement documents during receipt inspections. Any of these attributes identified in these procurement documents are verified during this inspection.

ANSI N45.2.2-1972 Section 5.2, paragraph 5.2.1, requires certain preliminary inspections to be done "prior to unloading" of material which is received. We believe that the sequence specified in the standard is to facilitate commercial claims, and should these preliminary inspections occur "after unloading" that control of materials quality would not be degraded. Accordingly, required shipping damage inspections may be performed after unloading.

The requirements of ANSI N45.2.2, Paragraph 7.2 for items that require special handling instructions is clarified by FPL to be limited to those items covered in the scope of NUREG 0612, entitled "Control of Heavy Loads at Nuclear Power Plants".

ANSI N45.2.2-1972, Paragraph 7.4 requires ~~that an~~ inspection program be established for handling equipment and rigging, including methods for identifying acceptable and nonconforming items. In lieu of having a program of periodic, documented inspections of rigging and handling equipment, FPL's practice is to have the individual user determine the equipment's acceptability prior to each use. This prior-to-use inspection is exactly the same as that required during periodic inspections, and uses criteria identified in ANSI N45.2.2-1972, paragraph 7.4. This practice also precludes the need for a system to indicate the acceptability of rigging and handling equipment. Implementation of this prior-to-use inspection will be assured through periodic surveillances and audits performed by Quality Assurance and Quality Control. Cranes are inspected on a periodic basis and will not be subjected to this prior-to-use inspection.

Certain mechanical components of the PSL-2 nuclear unit have been designed for a service environment of the site area because portions of the plant are exposed to the temperature, humidity, and ocean salt spray during operations. Extreme air temperature variations, snow or slush are not encountered during operations or in the out-of-doors storage environment. As an alternative to the rigid requirements of storage levels B and C in paragraph 6.1 of ANSI N45.2.2-1972, FPL proposes to store these particular mechanical components outdoors, but within controlled areas, with sufficient periodic surveillances and inspections to minimize the possibility of damage or lowering of quality due to corrosion, contamination, deterioration, or physical damage. In cases where special environmental conditions are present (i.e. hurricanes, paint sprays, concrete pours, etc.) precautions or additional steps will be taken to further protect the items.

Regulatory Guide 1.39, Rev. 2/ANSI N45.2.3-1973

For FPL's operating nuclear plants, alternative methods are followed to achieve equivalent objectives for the below listed sections of ANSI N45.2.3-1973:

The zone designations of Section 2.1 of N45.2.3 and the requirements associated with each zone are not consistent with the FPL Housekeeping requirements at our operating nuclear units. In lieu of the zone designation, cleanliness is maintained at a level consistent with the work being

performed, so as to prevent the entry of foreign material into safety related systems. Documented cleanliness inspections are performed immediately prior to system closure. Control of personnel, tools, equipment, and supplies is established with approved procedures when the safety function of a system, component, or item may be jeopardized and also while the reactor system is opened for inspection, maintenance, or repair.

Regulatory Guide 1.58, Revision 1/ANSI N45.2.6-1978

ANSI N45.2.6-1978, Paragraphs 1.1, 3.1, 3.2.2(a) and 4 (Table-1) identify requirements which apply to personnel who perform inspections, tests or nondestructive examinations or who participate in the approval of procedures, the handling of data or test results, or the control of reports and records.

FPL proposes an alternative to capability requirements for those who participate in: (1) the approval of procedures, (2) the handling of data or test results and (3) the control of reports and records. FPL accomplishes this by having personnel determined to be qualified and competent by management through consideration of education, training, and experience.

The Florida Power & Light Company position on the scope of ANSI N45.2.6-1978 is that personnel participating in testing who take data or make observations, where special training is not required to perform this function, need not be qualified in accordance with ANSI N45.2.6 but need only be trained to the extent necessary to perform the assigned function.

For leak testing conducted as part of the preoperational and operational testing programs, FPL considers that the qualification requirements of Regulatory Guide 1.8 (ANSI N18.1-1971) and ANSI N45.2.6-1978, Paragraph 3.0 to be an acceptable alternative to SNT-TC-1A-1975 requirements for leak testing, except for leak testing defined in and performed under Section III of the ASME Code, where in such cases, the Code shall govern.

For preoperational and operational inspection, examination and testing by Quality Control Inspectors, FPL considers that Position C.1 of Regulatory Guide 1.58, Revision 1 and ANSI N45.2.6-1978, Paragraph 3.0 are acceptable requirements for training and qualification, except for inspections, tests and examinations defined in and performed under Section III of the ASME Code, where in such cases, the Code shall govern.

For all other preoperational and operational inspection, examination and testing performed by operating plant and support personnel, FPL considers that training and qualification to the requirement of ANSI N18.1-1971 and Regulatory Guide 1.8 are sufficient for the type and scope of activities performed and that qualifications to ANSI N45.2.6-1978 is unnecessary and redundant. These preoperational and operational inspection, examination tests shall be supervised or directed by personnel qualified to Position C.1 of Regulatory Guide 1.58, Revision 1.

FPL shall comply with Position C.10 of Regulatory Guide 1.58, Revision 1, effective with Revision 4 of the Topical Quality Assurance Report, in that all new certifications issued for personnel shall meet the education and experience requirements or shall document objective evidence demonstrating that the individual indeed does have comparable or equivalent competence to that which would be gained from having the required education and experience.

FPL's position on ANSI N45.2.6-1978, Paragraph 2.3 is that an initial and periodic review (not to exceed two years) of personnel shall determine the capabilities in his qualified area. If during this review or at any other time, it is determined that the individual's capabilities are not in accordance with the specified requirements, that individual shall be removed from that activity until the required capability has been demonstrated. In addition, during this review a determination shall be made that an individual has been actively involved in the inspection process in his qualified area.

Regulatory Guide 1.64, Rev. 2/ANSI N45.2.11-1974

FPL's exception to Regulatory Guide position C.2 is as follows:

Design verification shall be performed by technically qualified individual(s) or group(s) other than those who performed the design. The original designers and verifiers may both be from the design organization. Design verification by the designer's immediate supervisor shall be limited to those instances where the supervisor is the only qualified individual available within the design organization. These instances are further restricted to designs where the designs where the supervisor did not specify a singular design approach, or did not restrict design methods or alternatives, or did not specify design inputs (unless the specified design inputs have already been independently verified). Justification for verification by the designer's immediate supervisor should be documented along with the extent of the supervisor's involvement in the design.

ANSI N45.2.11-1974, Paragraph 11.4 requires that "audits shall include an evaluation of design quality assurance policies, practices, procedures and instructions . . . ." FPL's design quality assurance (and all other QA elements) policies, procedures and instructions are included in FPL's Quality Assurance Program documentation. The Quality Assurance Department evaluates all of this documentation in reviews performed during its development and revision. Accordingly, FPL does not require subsequent (and redundant) evaluations of these Quality Assurance Program policies, procedures and instructions during audits. FPL audits will include evaluations of the adequacy of the practices which are the implementation of these policies, procedures and instructions.

Regulatory Guide 1.68 (11/73)

Regulatory Guide 1.68 (11/73) entitled "Preoperational and Initial Start-up Test Programs for Water Cooled Power Reactors" is addressed in Section 14.2.1 of the St. Lucie Unit 2 FSAR which states in part, "The start-up test program is developed using the recommendations of Regulatory Guide 1.68". To avoid duplication of requirements, FPL will address Regulatory Guide 1.68 in the FSAR.

Regulatory Guide 1.74/ANSI N45.2.10 - 1973

ANSI N45.2.10 - 1973 identifies terms and their definitions important to the uniform understanding of the intent of required quality assurance practices for the construction of nuclear power plants. Regulatory Guide 1.74 (2-74) endorses these terms and definitions and extends them through the operational phase and includes a clarification of procurement documents.

FPL has developed a glossary of terms and their definitions as part of the Quality Assurance Manual which is being used throughout its nuclear construction and operating plant activities.

The following definitions are currently listed in our glossary and are alternatives or clarifications to those listed in the ANSI Standard and Regulatory Guide:

Assembly	A combination of subassemblies or components or both, fitted together to form a workable unit.
Audit	A documented activity performed in accordance with written procedures or checklists to verify, by examination and evaluation of objective evidence, that applicable elements of the quality assurance program have been developed, documented and effectively implemented in accordance with specified requirements. An audit does not include surveillance or inspection for the purpose of process control or product acceptance.
Guidelines	Particular provisions which are considered good practice but which are not mandatory in programs intended to comply with Standards. The term "should" denotes a guideline; the term "shall" denotes a requirement; and the word "may" denotes permission, neither a requirement nor a recommendation.

Inspector (Owner's or Installer's)	A qualified inspector employed by the Owner or Installer, whose duties include the verification of quality related activities on installations.
Inspection	Examination, observation, or measurement to determine the conformance of materials, supplies, components, parts, appurtenances, systems, processes, or structures to predetermined requirements.
Procurement Documents	Contractually binding documents, including such documents as contracts, letters of intent, work orders, purchase orders or proposals and their acceptances which authorize the seller to perform services or supply equipment, material, or facilities on behalf of the purchaser. For control purposes, procurement requisitions are considered procurement documents in the context of this definition.
Qualification (Personnel)	The characteristics or abilities gained through training or experience or both as measured against established requirements such as standards or tests that qualify an individual to perform a required function.
Quality Assurance	All those planned and systematic actions necessary to provide adequate confidence that a structure, system or component will perform satisfactorily in service. Quality Assurance includes quality control.

Quality Control	Those quality assurance actions related to the physical characteristics or material, structure, component or system, which provide a means to control the quality of the material, structure, component or system to predetermined requirements.
Storage	That period following the release of an item for shipment until turnover for start-up preoperational testing. This would include in-place storage.
System	An integral part of a nuclear power plant comprised of electrical, electronic, or mechanical components (or combinations thereof) that may be operated as a separate entity to perform a specific function.
Testing	Performance of those steps necessary to determine that systems or components function in accordance with predetermined specifications.

"Requirements" Clarification for Glossary

REQUIREMENT:	A mandatory action, denoted by the word shall. (See "Guidelines") Requirements are generally based on statutes or regulations, but may be internally generated within the company. "Shall" is therefore used for both external, legally enforceable actions and internal requirements not enforceable under current NRC practices.

Regulatory Guide 1.88, Rev. 2/ANSI N45.2.9-1974

ANSI N45.2.9-1974, Section 3.2.5 requires Quality Assurance records be classified as lifetime or non-permanent and further defines lifetime and non-permanent in Section 2.2 of the Standard. FPL provides the following definitions as an alternative to the above.

Lifetime Records: Records which are required by the NRC facility operating license, the NRC construction permit, applicable parts of 10CFR, the FSAR, or other NRC commitments to be retained for the life of the plant.

Non-permanent Records: Records which are required by the NRC facility operating license, the NRC construction permit, applicable parts of 10CFR, the FSAR, or other NRC commitments to be retained for periods of time less than the life of the plant.

ANSI N45.2.9-1974, requirements for Section 5.6, "Facility", are clarified by FPL as follows:

QA records shall be stored in a manner as to protect contents from possible destruction by causes such as fire, flooding, tornados, insects, rodents, and from possible deterioration by a combination of extreme variations in temperature and humidity conditions.

A QA Record Storage Evaluation Team (QARSET) shall be responsible for determining methods utilized to assure that QA Records are adequately stored and protected.

The QARSET shall consist of the following: the Quality Manager - Juno Beach, the Loss Prevention Engineer, and the Nuclear Records Official, who shall be responsible for maintaining records of evaluations and establishing schedules to assure that reevaluations are performed every two (2) years. If necessary, the above QARSET Committee may delegate appropriate designees to serve as team members.

As part of their responsibility, the QARSET shall evaluate the status of existing facilities and the adequacy of additional records facilities prior to the construction of a new facility or the conversion of existing structures. Preferably, such evaluations should be performed during the design phase.

ANSI N45.2.9-1974 will be utilized in the evaluation of potential record storage facilities. Section 5.6 "Facilities" is modified as follows and shall be the basis for QARSET approved QA Record Storage Facilities.

1. A 2-hour vault meeting NFPA No. 232 without additional provisions.

2. 2-hour rated fire resistant file room as defined in NFPA No. 232- 1980 if the following additional provision are provided:

   a. Early warning fire detection and automatic fire suppression shall be provided, with electronic supervision at a constantly monitored central station.

   b. Records shall be stored in fully enclosed metal cabinets. Records shall not be permitted on open steel shelving. No storage or records shall be permitted on the floor of the facility. Adequate access and aisle space shall be maintained at all times throughout the facility.

   c. Work not directly associated with records storage or retrieval shall be prohibited within the storage facility.

   d. Smoking and eating/drinking shall be prohibited throughout the records storage facility.

   e. Ventilation, temperature, and humidity control equipment shall be provided with approved fire dampers where they penetrate fire barriers.

3. Other conditions from the above may be approved by the QARSET if in their judgement the condition meets the established level of protection defined above.

There are two acceptable alternatives to the establishment of an approved QA record storage facility:

1. The maintenance of duplicate QA Records stored in separate locations which are not subject to the same destructive force at the same time.

2. The use of QARSET approved factory built record protection equipment, such as insulated record containers, fire-resistive safes, and insulated filing devices.

Where a specially constructed storage room is maintained to store the only copy of QA records, at least the following features should be considered in its construction:

(1) Reinforced concrete, concrete block, masonry, or equal construction.

(2) Concrete floor and roof with sufficient slope for drainage; if a floor drain is provided, a check valve (or equal) shall be included.

(3) Structure, doors, frames and hardware should be fire-rated with a recommended two hour minimum rating.

(4) Sealant applied over walls as a moisture or condensation barrier.

(5) Surface sealant on floor providing a hard-wear surface to minimize concrete dusting.

(6) Foundation sealant and provision for drainage.

(7) Forced-air circulation with filter system.

(8) Adequate fire detection and/or suppression system.

(9) No pipes other than those providing fire protection to the storage facility are to be located within the facility.

Regulatory Guide 1.116/ANSI N45.2.8-1975

ANSI N45.2.8-1975, Paragraph 2.3 requires that Measuring and Test Equipment (M&TE) used for inspection be identified on the Inspection Report. FPL may, as an option, employ a M&TE issue log which provides traceability between M&TE and the applicable inspections.

ANSI N45.2.8-1975, Paragraph 4.6 addresses care of items to the extent that temporary use of equipment or facilities to which the standard applies that are to become part of the completed project may be desirable.

The following clarification applies to the above statement. For FPL plants in the construction phase (to the point of plant operation license) temporary use of equipment and facilities may be used according to need and/or situation. In this case, authorization for usage shall be provided along with all the documents, conditions, safeguards and evaluations to verify permanent plant equipment adequacy.

In the operations phase all equipment, including temporary equipment, is subject to identical controls to preclude adverse effects on safety and suitability for use.

Regulatory Guide 1.123, Rev. 1/ANSI N45.2.13-1976

ANSI N45.2.13-1976 Section 1.1 states that the extent to which the individual requirements of this standard will apply will depend upon the nature and scope of the work to be performed and the required quality of the items or services purchased. For commercial grade items, FPL has determined that certain aspects of the individual requirements of ANSI N45.2.13 need not apply. Commercial grade items are those (1) not subject to design or specification requirements that are unique to facilities or activities licensed by the NRC, and (2) used in applications other than facilities or activities licensed by the NRC, and (3) to be ordered from the manufacturer/supplier on the basis of specifications set forth in the manufacturer's published product description. These commercial items are subject to varying degrees of control as indicated in the FPL Quality Assurance Manual.

As a minimum, an evaluation is performed by qualified personnel to assure that the commercial item satisfies the necessary technical and quality requirements and the item is checked upon receipt to assure that the item received was the one ordered, damage was not sustained during shipment, and documentation, if required, was received.

ANSI N45.2.13-1976 Section 1.3 provides a definition of "procurement document" which is different from the definition contained in ANSI N45.2.10-1973 and Regulatory Guide 1.74. The Florida Power & Light (FPL) Quality Assurance Program uses the definition of "procurement document" listed in Appendix C which is an alternative to that listed in the ANSI Standard and Regulatory Guide.

ANSI N45.2.13-1976 Section 3.3.a requires that procurement documents be reviewed prior to release for bid and contract award. The FPL Quality Assurance Program requires procurement document reviews prior to bid and contract award for all safety related purchases with the exception of these accomplished by "Confirming Purchase Order". A "Confirming Purchase Order" is an order which is initially placed verbally with the supplier and then later confirmed with a written Purchase Order. A "Confirming Purchase Order" is only used when time restraints would prohibit the normal review and approval cycle. The following controls are provided in the FPL Quality Assurance Manual to assure that the intent of ANSI N45.2.13 is satisfied for "Confirming Purchase Orders".

(1) Quality Assurance must be contacted prior to contacting the supplier to place the order unless it is an emergency purchase after normal working hours in which case Quality Assurance is contacted the next working day.

(2) Prior to verbally placing the order, it must be verified that the intended supplier is on the FPL Quality Assurance Approved Supplier List.

(3) The verbally placed order must be promptly followed-up (confirmed) with a written procurement document which is subject to all reviews and approvals required for safety related purchases.

Section 8.2 of ANSI N45.2.13 identifies those nonconformances which shall be submitted to the Purchaser. Florida Power & Light's (FPL) position regarding the nonconformances to be reported is as follows. Suppliers (including A/E's and Contractors) shall submit all nonconformances which consist of one or more of the following:

1) Technical or material requirements are violated.
2) Requirement in supplier documents which have been approved by the Purchaser is violated.
3) Nonconformances which would affect the quality of the item in regard to function of safety related features. In cases where the supplier cannot make this determination, they shall be submitted to the Purchaser for evaluation.

This policy assures that all nonconformances affecting safety related functions will be reviewed and approved by FPL. In all cases, the supplier's documentation on nonconformances is available for FPL's review.

Regulatory Guide 1.144, Rev. 1/ANSI N45.2.12-1977

Regulatory Guide 1.144, Positions C.3 a&b, states in part that applicable elements of an organization's Quality Assurance Program should be audited at least annually or at least once within the life of the activity, whichever is shorter.

ANSI N18.7-1976/ANS-3.2, Paragraph 4.5 (endorsed by Regulatory Guide 1.33 Revision 2) states in part; "Audits of selected aspects of operational phase activities shall be performed with a frequency commensurate with their safety significance, and in such a manner as to assure that an audit of safety related functions is completed within a period of two years."

FPL has chosen a two year cycle for auditing elements of the internal and on-site QA Program during the operation phase of plant life following initial fuel loading. FPL's position is that the two year cycle: (1) allows more in-depth and meaningful audits in each regularly scheduled area, (2) permits more audits of ongoing activities, and (3) in conjunction with the planning and scheduling requirement of TQR 18.0 provides for a comprehensive audit program. The audit frequency requirements of Regulatory Guide 1.144 will be followed during other plants' phases.

In the case of suppliers, an annual evaluation of quality performance history shall be performed to determine reaudit requirements. Reaudit requirements for suppliers shall be based on the quality performance, and the complexity and criticality of the equipment or service being procured.

ANSI N45.2.12, Paragraph 4.3.1 states: "A brief pre-audit conference shall be conducted at the audit site with cognizant organization management. The purpose of the conference shall be to confirm the audit scope, present the audit plan, introduce auditors, meet counterparts, discuss audit sequence and plans for the postaudit conference, and establish channels of communication." FPL will not require the pre-audit conference for audits of limited scope and of specific site activities conducted by the Construction and Operations Groups. This conference is omitted because the day-to- day contact of the auditors and plant management, the awareness on the part of plant management that these audits are conducted without pre-audit conferences, and the limited scope of the audits meet the intent of a pre-audit conference.

ANSI Standard N45.2.12-1977, Paragraph 4.5.1 states in part "The audited organization shall provide a follow-up report stating the corrective action taken and the date corrective action was completed". The FPL QA Program requires the QA Department to followup on all action taken by the audited department. This is documented on the corrective action followup form by the QA Department and closed by the QA Department instead of the audited department. This assures that all actions taken by the audited department are verified by the QA Department and that the QA Department concurs with the resolution. We feel that it is appropriate for this to be documented by the QA Department instead of the audited department.

Planning Clarification

ANSI N45.2.4-1972, Paragraph 2.1; ANSI N45.2.6-1973, Paragraph 2.1;
ANSI N45.2.13-1976, Paragraph 7.2; ANSI N18.7-1976/ANS 3-2, Paragraph 5.2.7.1; ANSI N45.2.8-1975, Paragraph 2.1 and Paragraph 2.2 include plans and/or planning as required.

The terms plan and/or planning are included in FPL's activities as indicated in the following clarification:

Planning is considered to be a management process or analytical tool used as an aid to help develop identification and/or development of program requirements, implementation activities, assignments and staffing, inspections, surveillances and audits, controls and other activities to assure completeness of the requirements. Planning, as such, is not always documented nor addressed as an end item and is considered to be an integral "process" within the developed item.

Plans which are considered to be end type or output type documents have the term "plan" in the title, such as ISI Master Plan, Audit Plan, Start-up Plan, and others, which as such will reflect directly the requirement of these standards in the appropriate documents.

Plans which are not considered to be end type or output type documents do not have the word plan in the title. However, certain procedures, instructions, flow charts, schedules and checklists may be considered to be plans reflecting planned actions which especially require step-by-step accomplishments. In these cases, the term plan may not appear in the title but considered to be a plan only in the indirect sense and identified as a procedure or other document. FPL considers the above practice to be in compliance with the "plan" requirements of these standards.

LIST OF CORPORATE QUALITY ASSURANCE PROCEDURES

QP NUMBER/TITLE	SECTION DESCRIPTION
1.1 CANCELLED	
2.1 CANCELLED (Terms and Definitions contained in the QA Manual Glossary)	
2.2 CANCELLED	
2.3 QUALITY ASSURANCE PROGRAM REVIEW	Provides instructions for the revision of the Florida Power & Light Company Topical Quality Assurance Report (FPL TQAR). Describes the instructions and methods used for establishing, preparing, issuing, revising and controlling Quality Procedures employed in supporting quality requirements.
2.4 PREPARATION AND REVISION OF QUALITY INSTRUCTIONS	Provides the responsibilities, guidelines and methods used for developing and revising Quality Instructions, based upon QP's, that involve quality activities within a department or organization and are unique to that activity.
2.5 QUALITY ASSURANCE INDOCTRINATION AND DEPARTMENTAL TRAINING	Describes the requirements for the indoctrination and training of personnel who perform, or are responsible for activities that affect quality.
2.6 CANCELLED	
2.7 IDENTIFICATION OF SAFETY RELATED STRUCTURES, SYSTEMS, AND COMPONENTS	Describes the development and approval of documents identifying safety related and safety related design feature structures, systems and components.
2.8 CLEANLINESS CONTROL METHODS	Provides criteria for securing good housekeeping. Assigns responsibilities for assuring that the cleanliness of material, systems and structures is maintained.

LIST OF CORPORATE QUALITY ASSURANCE PROCEDURES

QP NUMBER/TITLE	SECTION DESCRIPTION
2.9 QUALIFICATION OF QA AUDIT, QC INSPECTION, CONSTRUCTION & POWER SUPPLY TEST PERSONNEL	Describes the personnel qualifications that are required to assure that competent QC inspectors, QA auditors, construction and power supply test personnel perform these respective functions.
2.10 HOUSEKEEPING FOR OPERATING PLANTS	Describes the responsibilities and controls for housekeeping at operating nuclear power plants.
2.11 CANCELLED	
2.12 FPL QA PROGRAM APPLICABILITY FOR FIRE PROTECTION SYSTEMS	Identifies the applicability of the Quality Assurance Program for Fire Protection Systems.
2.13 PROCESSING OF NRC CORRESPONDENCE	Describes the system for providing responses to NRC initiated action requests.
2.14 IMPLEMENTATION OF ASME XI	Describes the program and responsibilities for controlling activities defined by ASME Section XI.
2.15 CONTROL OF COMPUTER SOFTWARE	Specifies basic requirements for control of the lifecycle of computer software on mainframe, stand-alone, and PC computers.
2.17 ENVIRONMENTAL QUALIFICATION (EQ) OF ELECTRICAL EQUIPMENT	Delineates the responsibilities and requirements for maintaining the environmental qualifications of nuclear plant components.
3.1 CANCELLED	
3.2 IDENTIFICATION AND CONTROL OF DESIGN INTERFACES	Describes measures employed for identifying and controlling design interfaces, changes in design interfaces, and modifications that affect documents.

QP NUMBER/TITLE	SECTION DESCRIPTION
3.4 PLANT CHANGES AND MODIFICATIONS FOR OPERATING PLANTS	Establishes measures for controlling design changes or modifications in operating nuclear power plants.
3.5 DESIGN CONTROL AT THE CONSTRUCTION SITE	Defines the responsibilities and methods employed for the initiation, review, evaluation, approval and disposition of field initiated design changes and miscellaneous design documents such as field sketches and isometrics.
3.6 CONTROL OF FPL ORIGINATED DESIGN	Covers the preparation, review, and approval of design input documents, design analysis specifications, and design verification for safety related design work originated by FPL.
3.7 EVALUATION AND CONTROL OF CONTRACTOR DESIGN FOR NUCLEAR FUEL AND RELATED SYSTEMS	Describes the evaluation and control of contractor designs for fuel related components and analysis.
4.1 CANCELLED	
4.2 CANCELLED	
4.3 CANCELLED	
4.4 CANCELLED	
4.5 CANCELLED	
4.6 PROCUREMENT CONTROL	Delineates the sequence of actions in the preparation, review, approval, and control of procurement documents.

LIST OF CORPORATE QUALITY ASSURANCE PROCEDURES

OP NUMBER/TITLE	SECTION DESCRIPTION
5.1 OPERATING PLANT PROCEDURES	Describes measures which ensure that instructions and procedures used in operating plants are identified, prepared, reviewed, approved, issued and revised in accordance with regulatory and FPL requirements.
5.2 BACKFIT PROCEDURES	Describes the generation, review and control of backfit procedures.
6.1 CONTROL OF CONSTRUCTION PROJECT CONTRACTOR DRAWINGS, SPECIFICATIONS AND PROCEDURES	Defines responsibilities and methods for the control and issue of contractor drawings, specifications and procedures to be used during the construction phase of nuclear power plants.
6.2 CONTROL OF DOCUMENTS ISSUED BY FPL	Instructions are provided for controlling documents issued by FPL which prescribe activities affecting the quality of safety related items.
6.3 CANCELLED	
6.4 CANCELLED	
6.5 CANCELLED	
6.6 DRAWING CONTROL FOR OPERATING NUCLEAR POWER PLANTS	Describes the method to be used for controlling and updating nuclear safety related drawings for operating plants after turnover from the design organization.
6.7 CONTROL OF VENDOR MANUALS AND VENDOR TECHNICAL INFORMATION	Establishes requirements for controlling technical manuals for operating, maintenance and test equipment.

LIST OF CORPORATE QUALITY ASSURANCE PROCEDURES

OP NUMBER/TITLE	SECTION DESCRIPTION
7.1 RECEIPT INSPECTION OF MATERIALS, PARTS AND COMPONENTS AT THE PLANT SITE	Provides instructions for receipt inspection of materials, parts and components which have been obtained for use in nuclear safety applications at the operating plant site.
7.2 CANCELLED	
7.3 CANCELLED	
7.4 EVALUATION OF SUPPLIERS OF SAFETY RELATED ITEMS OR SERVICES	Provides standards, measures, and guidelines for the evaluation of QA Programs of contractors or suppliers supplying items or services.
7.5 CANCELLED	
7.6 ACCEPTANCE OF ITEMS AND SERVICES	Describes the responsibilities and requirements for accepting nuclear safety related items or services that are being procured for nuclear power plants.
7.8 CANCELLED	
7.9 CONTROL OF ON-SITE SERVICES	This procedure provides a system to assure that vendors who provide on-site services by contract or purchase order to FPL at nuclear power plants are controlled.
8.1 IDENTIFICATION AND CONTROL OF MATERIALS, PARTS, AND COMPONENTS AT THE PLANT SITE	Delineates measures for assuring traceability, identification and control of items from the time they are received through usage at operating plants.
8.2 CANCELLED	
9.1 CONTROL OF SPECIAL PROCESSES	Delineates the responsibilities of organizations and personnel, and the control and documentation of special processes that are applied to safety related items.

QP NUMBER/TITLE	SECTION DESCRIPTION
9.2 CANCELLED (Combined with 9.1)	
9.4 CONTROL OF WELDING FOR NUCLEAR POWER PLANTS	Delineates responsibilities and requirements for control FPL welding processes for nuclear power plants.
10.1 CANCELLED	
10.2 CANCELLED	
10.3 INSPECTION AND SURVEILLANCE	Delineates responsibilities and requirements for the inspection and surveillance of safety related plant maintenance activities, operation of safety related systems, and fuel handling activities.
10.4 CANCELLED	
10.5 CANCELLED	
10.6 CANCELLED	
11.1 CANCELLED (Combined with 11.4)	
11.2 CANCELLED (Combined with 11.4)	
11.3 CANCELLED (Combined with 11.4)	

LIST OF CORPORATE QUALITY ASSURANCE PROCEDURES

OP NUMBER/TITLE	SECTION DESCRIPTION
11.4 TEST CONTROL	Defines the measures for control of proof tests prior to installation, construction tests, preoperational tests, startup tests, operational tests and retests following repairs, replacements or modifications for nuclear safety related systems, structures, and components.
12.1 CALIBRATION AND CONTROL OF MEASURING AND TEST EQUIPMENT	Delineates the responsibilities for implementing the described program for maintenance, calibration and control of measuring and test equipment (M&TE).
12.2 CALIBRATION CONTROL OF INSTALLED PLANT INSTRUMENTATION AND CONTROL EQUIPMENT	Describes the calibration program, delineates responsibilities, and establishes procedures for control over the calibration of install instrumentation and plant control equipment.
13.1 HANDLING, STORAGE AND SHIPPING OF MATERIALS, PARTS AND COMPONENTS	Establishes responsibilities and procedures to assure that measures are employed by FPL and contractors to: (1) control the handling, shipping and storage of material; (2) protect the quality of material by using proper handling, shipping, and storage techniques; (3) effectively control the disposition of discrepant items.
13.2 CANCELLED	
13.3 CANCELLED (Combined with 13.1)	
14.1 CANCELLED (Combined with 14.3)	
14.2 CANCELLED (Combined with 14.3)	

LIST OF CORPORATE QUALITY ASSURANCE PROCEDURES

OP NUMBER/TITLE	SECTION DESCRIPTION
14.3 INSPECTION, TEST AND OPERATING STATUS DURING PLANT OPERATION	Defines the measures and responsibilities for the identification of the inspection, test and operating status of structures, systems, and components.
15.1 CANCELLED (Combined with 15.2)	
15.2 CONTROL OF NONCONFORMING MATERIALS, PARTS, COMPONENTS AND SERVICES	Defines the objectives and responsibilities for controlling nonconforming items or services in order to prevent their inadvertent use, installation or application to operating nuclear power plants.
16.1 CORRECTIVE ACTION	Establishes the respective responsibilities of FPL personnel and the procedure for assuring that conditions identified by the FPL QA Department as being adverse to quality, are corrected.
16.2 CANCELLED (Combined with 16.1)	
16.3 CANCELLED (Combined with 16.1)	
16.4 EVALUATING AND REPORTING DEFECTS AND FAILURE TO COMPLY FOR SUBSTANTIAL SAFETY HAZARDS IN ACCORDANCE WITH 10 CFR PART 21	Specifies the measures and responsibilities within Florida Power & Light to assure compliance to 10 CFR Part 21.
16.6 CANCELLED	

LIST OF CORPORATE QUALITY ASSURANCE PROCEDURES

OP NUMBER/TITLE	SECTION DESCRIPTION
17.1 QUALITY ASSURANCE RECORDS	Identifies records and documents required to substantiate quality; and, describes measures employed for their maintenance, retention and retrieval.
18.1 PERFORMANCE OF QUALITY ASSURANCE AUDITS	Provides instructions for conducting audits of FPL Quality Assurance Program activities.
18.2 CANCELLED	
18.3 CANCELLED	
18.4 CANCELLED	

ELECTRICAL DRAWINGS AND LOGIC DIAGRAMS

The list of electrical drawings and logic diagrams selected from among those listed in Section 11.1 of Engineering Package 91-128, Revision 0, for submittal in response to an NRC request for additional information is presented in pages 2 through 3 of this attachment.

PC/M DRAWING NO.	REV	DESCRIPTION/TITLE
5613-E-28,SH.9A/ 91-128	0	Elementary Diagram Electrical Auxiliaries Loss of Voltage Bus 3A
5613-E-28,SH.9A2/ 91-128	0	Elementary Diagram Electrical Auxiliaries Loss of Voltage Bus 3A
5613-E-28,SH.9A3/ 91-128	0	Elementary Diagram Electrical Auxiliaries Loss of Voltage Bus 3A Relay Development
5613-E-28,SH.9B/ 91-128	0	Elementary Diagram Electrical Auxiliaries Loss of Voltage Bus 3B
5613-E-28,SH.9B2/ 91-128	0	Elementary Diagram Electrical Auxiliaries Loss of Voltage Bus 3B
5613-E-28,SH.9B3/ 91-128	0	Elementary Diagram Electrical Auxiliaries Loss of Voltage Bus 3B Relay Development
5613-E-28,SH.9C/ 91-128	0	Elementary Diagram Electrical Auxiliaries Relay Test Annunciation
5613-E-28,SH.13A/ 91-128	0	Elementary Diagram Electrical Auxiliaries Metering and Relaying 480V Load Center 3A
5613-E-28,SH.13A1/ 91-128	0	Elementary Diagram Electrical Auxiliaries Metering and Relaying 480V Load Center 3A
5613-E-28,SH.13B/ 91-128	0	Elementary Diagram Electrical Auxiliaries Metering and Relaying 480V Load Center 3B
[illegible]-E-28,SH.13B1/ [illegible]128	0	Elementary Diagram Electrical Auxiliaries Metering and Relaying 480V Load Center 3B

PC/M DRAWING NO.	REV	DESCRIPTION/TITLE
5613-E-28,SH.13C/ 91-128	0	Elementary Diagram Electrical Auxiliaries Metering and Relaying 480V Load Center 3C
5613-E-28,SH.13C1/ 91-128	0	Elementary Diagram Electrical Auxiliaries Metering and Relaying 480V Load Center 3C
5613-E-28,SH.13D/ 91-128	0	Elementary Diagram Electrical Auxiliaries Metering and Relaying 480V Load Center 3D
5613-E-28,SH.13D1/ 91-128	0	Elementary Diagram Electrical Auxiliaries Metering and Relaying 480V Load Center 3D
5610-T-L1,SH.13/ 91-128	0	Logic Diagram Loss of Voltage and Bus Stripping