

# Florida Power

CORPORATION

Crystal River Unit 3  
Docket No. 50-302

August 4, 1995  
3F0895-10

U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, D. C. 20555

Subject: Quality Program Description - Reduction in Commitment

Reference: FPC to NRC letter, 3F0795-03, dated July 5, 1995

Dear Sir:

Florida Power Corporation (FPC) is submitting this letter in accordance with 10 CFR 50.54 (a)(3). FPC requests NRC approval of changes in the Crystal River Unit 3 (CR-3) Quality Program description which will reduce commitments. Attachment 1 discusses the changes. Attachment 2 contains the changed pages from the CR-3 Final Safety Analysis Report (FSAR) Chapter 1.7. The changed text is marked with a vertical line in the right margin and (Rev. XX) in the right lower corner. We have also indicated where text has been removed with strikeout and new text added with highlighting. The current revision level of the FSAR is Revision 22 which was submitted by the reference letter.

FPC currently performs audits regardless of activities in progress, and resources are consumed to meet time and subject requirements. Rigid schedules do not provide the flexibility to recognize exceptional performance by competent and dependable organizations through reduced audit cycles while directing increased resources to areas with perceived weaknesses.

The lack of flexibility can also lead to auditing an activity prior to corrective action completion when the audit could have measured the effectiveness of the corrective action if postponed until a later time. FPC believes a more meaningful performance based audit might be conducted if the audit was able to be delayed to better sample an activity.

Audits, reviews, and surveillances should be integrated in a manner that provides management a continuous assessment of facility operation with recommended actions to strengthen safety and improve plant reliability.

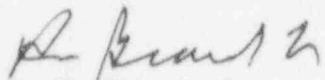
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FPC proposes a maximum audit interval that is set to ensure all areas receive periodic coverage. We propose maximum audit intervals of 24 months, with the exception of audits required by regulations to be conducted at specified frequencies.

Some performance parameters that will be used in determining the audit schedule will include the results of the previous audit, quarterly and semi-annual assessments by various management levels, and corrective action trends. Areas that demonstrate poor or declining performance will be audited or surveilled more frequently, while other areas may be audited less frequently than currently specified. These adjustments should have a positive impact on safety as resources are shifted to better focus on weak or declining areas, while still providing periodic audit coverage of other stronger areas. This concept was previously discussed at a Public Workshop on NRC's Program for Elimination of Requirements Marginal to Safety.

This amendment does not eliminate the areas to be covered by the audit program. All areas previously approved by the NRC will continue to be audited.

Sincerely,



P. M. Beard, Jr.  
Senior Vice President  
Nuclear Operations

PMB/JWT  
Attachments

xc: Regional Administrator, Region II  
Senior Resident Inspector  
NRR Project Manager

ATTACHMENT 1 to 3F0895-10

## Description of Specific Changes

### General Discussion

Currently, audits are required to be performed regardless of activities in progress, and resources are consumed to meet time and subject requirements.

Rigid schedules do not provide the flexibility to recognize exceptional performance by competent and dependable organizations through reduced audit cycles while directing increased resources to areas with perceived weaknesses. Auditing requirements should be flexible enough to encourage direction of resources to focus on areas requiring increased attention. Deficient areas are reaudited when required based on the severity of discrepancies, extent of corrective action required and significance to safety, performance, and reliability.

The lack of flexibility can also lead to auditing an activity prior to corrective action completion when the audit could have measured the effectiveness of the corrective action if postponed a short time. A more meaningful performance based audit might be performed if the audit was delayed a month to better sample an activity.

Audits, reviews, and surveillances should be integrated in a manner that provides management a continuous assessment of facility operation and recommends action to strengthen safety and improve plant reliability. A prominent factor in developing and revising audit schedules is performance in the subject area. The audit schedule is revised so that weak or declining areas receive increased audit or surveillance coverage and strong areas receive less coverage.

A maximum interval is set to ensure all areas receive periodic coverage. Proposed maximum audit intervals are 24 months, with the exception of audits required by regulations to be conducted at specified frequencies. The proposed 24 month frequency for most audits will allow resource focusing based on performance and activities in progress, while assuring that each area will be audited at a minimum frequency.

Some performance parameters that will be used in determining the audit schedule will include the results of the previous audit, quarterly and semi-annual assessments by various management levels, and corrective action trends. Areas that demonstrate poor or declining performance will be audited or surveilled more frequently, while other areas may be audited less frequently than currently specified. These adjustments should have a positive impact on safety as resources are shifted to better focus on weak or declining areas, while still providing periodic audit coverage of other stronger areas. This concept was previously discussed at a Public Workshop on NRC's Program for Elimination of Requirements Marginal to Safety.

This amendment does not eliminate the areas to be covered by the audit program. All areas previously approved by the NRC will continue to be audited.

## Specific Changes

1.7.1.18.8

- 1.a. *The performance activities required by the Quality Assurance Program for effluent and environmental monitoring.*

From: Every 12 months

To: Every 24 months

The Environmental Protection Plan contains requirements for periodic status reporting. The Quality Assurance Program requirements are to overview the programmatic controls of the Program.

Within a performance based auditing system, this Program has demonstrated consistent conformance to criteria. As such, the 12 month audit requirement should be relaxed to a 24 month requirement with the expectation that the program will continue to perform responsibly for at least 24 months after the audit. With the audit frequency based on performance, the ensuing audit frequency could be less than 24 months.

This reduction of the frequency requirement from annual to biennial will not adversely impact compliance with provisions of the FSAR, or the effectiveness of audits performed.

- 1.b. *The conformance of facility operation to provisions contained within the Technical Specification and applicable license conditions.*

From: Every 12 months

To: Every 24 months

This requirement is satisfied by assessing the adequacy of the implementation of Technical Specifications when auditing any organization that is responsible for implementation of procedures, maintenance of procedures or reviewing completed procedures that are intended to satisfy Technical Specifications, and by verifying completion of required Surveillance and tests. This may include identification and assessment of actions taken to correct Technical Specification deficiencies identified in LERs since the last audit.

Activities of the audited organization are normally observed during each audit to accomplish performance based audits. During these observations, the auditors routinely assess the activities of the audited organization to determine if the requirements of CR-3 Technical Specifications are met.

Reducing the frequency requirement from annual to biennial (2 years) will not adversely impact compliance with provisions of the Technical specifications, the commitments in FSAR Table 1-3, or the effectiveness of audits performed. Compliance with the Technical Specifications and license conditions is evaluated on a continuing basis although not in a single Technical Specification audit.

Performance based auditing will require increased and repetitive scrutiny in poorly performing areas.

1c. *The performance, training and qualifications of the entire facility staff.*

From: Every 12 months

To: Every 24 months

The performance, training, and qualifications of facility staff are assessed as applicable during each audit of an integrated schedule. In addition, an annual audit is currently conducted to assess training on a systematic level.

Monthly and quarterly indicators are used to signal areas of potential weakness. Auditing will focus on these areas and audit frequencies will be adjusted to quickly identify problem areas and maintain close scrutiny until consistent improved performance is achieved.

Reducing the frequency requirement from annual to biennial will not adversely impact compliance with provisions of the in FSAR, or the effectiveness of audits performed.

Performance based auditing will focus management attention to substandard areas.

1d. *The results of actions taken to correct deficiencies occurring in the facility equipment, structures, systems or method of operation that affect nuclear safety.*

From: Every 6 months

To: Every 24 months

This requirement is satisfied by assessing the effectiveness of corrective action taken by all audited organizations. Each audit must evaluate a sample of corrective actions taken since the last audit was completed. A biennial audit of the Corrective Action Program is performed to evaluate the programmatic controls which govern the process.

In addition, monthly trend reports are reviewed to recognize departure from timely corrective action development and completion.

The proposed changes would not negatively affect the review of corrective actions in each audit. The biennial audit will continue to assess the programmatic controls of the Corrective Action Program.



ATTACHMENT 2 TO 3F0895-10

## 1.7 QUALITY PROGRAM (OPERATIONAL)

This Quality Program is revised and submitted to the NRC as required by 10 CFR 50.54(a). For later interim changes, contact the Nuclear Operations Quality Programs Department.

### 1.7. INTRODUCTION

Florida Power Corporation (FPC) has implemented a comprehensive Quality Program in order to maintain the high quality of plant systems and equipment during operation, maintenance, repair, modification, and refueling. Sections 1.7.1, 1.7.2 (and Table 1-3), 1.7.3 and 1.7.4 describe the FPC Quality Program during the operational phase which implements 10 CFR 50, Appendix B. This program and its implementation are available for audit by NRC personnel.

#### 1.7.1.1 Organization

FPC has established the functional responsibilities and authorities of positions/organizations involved in the Quality Program (Figures 1-26 and 1-26a through 1-26g). These figures, along with the functional departmental responsibilities described below, serve to document the relationships between operating organization positions. In certain instances, duties and authority to execute and audit the quality activities are delegated to other organizations. In all cases, FPC retains responsibility for the Quality Program for Crystal River Unit 3.

Verification of conformance to established quality requirements on safety-related structures, systems, and components is accomplished by those individuals or groups who do not have direct responsibility for performing the work being verified.

Persons and organizations performing quality assurance functions have sufficient authority and organizational freedom to identify quality problems; initiate necessary action to provide for resolution of nonconformances through designated channels; verify implementation of solutions; and, control further processing, delivery, or installation of a nonconforming item until the proper disposition of the deficiency or the unsatisfactory condition has been approved.

The following summarizes the functional responsibilities and authorities of positions/organizations involved in directing and managing the FPC Quality Program:

#### 1. President

Ultimate responsibility for the overall effectiveness of FPC's Quality Program rests with its President. He has assigned the responsibility for the implementation of the program to the Senior Vice President, Nuclear Operations.



## 2. Senior Vice President, Nuclear Operations

The Senior Vice President, Nuclear Operations shall have corporate responsibility for overall plant nuclear safety and shall take any measures needed to ensure acceptable performance of the staff in operating, maintaining, and providing technical support to the plant to ensure nuclear safety.

The Senior Vice President, Nuclear Operations is responsible for the implementation of the Quality Program. He has the authority and responsibility to resolve all problems related to the Quality Program when resolution cannot be obtained at subordinate levels of management. He has delegated the authority for administering the program to the Director, Quality Programs.

The Senior Vice President, Nuclear Operations is responsible for operations, engineering and quality program functions at Crystal River Unit 3. He has the authority and responsibility to administer the FPC Quality Program.

The Senior Vice President, Nuclear Operations is in charge of an organization consisting of the following elements:

- Nuclear Production
- Nuclear Engineering and Projects
- Nuclear Operations Materials and Controls
- Quality Programs

The functions of each of these elements are defined below.

### a. Nuclear Production

The Vice President, Nuclear Production, reporting to the Senior Vice President, Nuclear Operations, is responsible for the operations, site support, technical support, integrated scheduling and training functions of Crystal River Unit 3.

The Vice President, Nuclear Production is in charge of an organization consisting of the following elements:

- Nuclear Plant Operations
- Nuclear Operations Site Support
- Nuclear Plant Technical Support
- Production Management
- Nuclear Operations Training
- Outage Management

The functions of each of these elements are defined below.

### Nuclear Plant Operations

The Director, Nuclear Plant Operations (DNPO) is responsible for:

- The safe, legal, and efficient on-site operation, maintenance, calibration of portable measuring and test equipment, chemistry, radiation protection, nuclear safety, and equipment and facility modification at the nuclear plant
- Planning and monitoring of all activities necessary to achieve and control optimum operations, maintenance and outage activities
- The development and implementation of an Inspection Planning Program for activities within his responsibility
- The CR-3 ALARA program
- Development, maintenance, and interpretation of radiological effluent technical specifications and the environmental monitoring program
- Resolving disagreements with the PRC pursuant to Technical Specification 5.1.1

The DNPO directs the development and maintenance of an equipment list of portable measuring and test equipment used to calibrate instrumentation and electrical equipment. The list and changes thereto are reviewed and approved.

### Nuclear Operations Site Support

The Director, Nuclear Operations Site Support is responsible for:

- The coordination of all licensing requirements, regulations, reporting requirements and licensing commitments
- Radiological emergency preparedness
- CR-3 fire protection program
- Corporate Health Physics activities
- Coordination of the nuclear fuel management activities
- Monitoring and coordinating activities to ensure compliance with applicable regulatory, corporate, and safety requirements
- The CR-3 security program
- Interpretation of and evaluation of problems or issues, involving technical specification requirements
- The responsibility for the training and qualification of security force personnel

### Nuclear Plant Technical Support

The Manager, Nuclear Plant Technical Support is responsible for:

- Providing technical consulting to plant departments on activities or questions related to plant systems to enhance safety and the overall capacity factor and reliability of CR-3
- Monitoring component performance
- Performing inservice inspections
- Technical administration of surveillance procedures
- Coordinating preventative maintenance recommendations, predictive maintenance, and reliability centered maintenance evaluations
- Development of programs for NRC Maintenance and License Renewal Rules

### Production Management

The Production Manager is responsible for managing, directing, and supervising the activities of the day-to-day scheduling.

### Outage Management

The Outage Manager is responsible for managing, directing, and supervising the activities of the outage management groups.

He is also responsible for maintaining communications with owner's groups, other plants, and outside agencies to incorporate ideas to optimize outage schedules.

### Nuclear Operations Training

The Director, Nuclear Operations Training is responsible for nuclear training, including licensed and non-licensed operator, technician, engineer, general employee, nuclear emergency team, and maintenance training, and specialized qualification/certification training, as required.

#### b. Nuclear Engineering and Projects

The Director, Nuclear Engineering and Projects is responsible for:

- Overall CR-3 design control activities
- The design, evaluation, and technical approval of plant modifications

- Development and implementation of an Inspection Planning Program for activities within his responsibility
- Engineering analyses, and evaluations
- The coordination of modification activities with the plant project management group
- Modification functional tests
- Technical review of plant procedures
- Management and direction of architect/engineer contracts
- Review of procurement documents to ensure inclusion of appropriate technical requirements
- Ensuring appropriate technical requirements are included in work authorizations
- Maintaining the configuration management program
- Providing input to Plant Organizations to enhance operability, maintainability, and reliability
- The development and control of procedures for engineering design and design related activities
- The coordination of Nuclear Engineering training on departmental operations and procedures
- Supporting the audit program activities, as requested by Quality Programs, for external engineering design organizations

c. Nuclear Operations Materials and Controls

The Director, Nuclear Operations Materials and Controls, is responsible for:

- The management and acquisition of all quality related materials and services (including nuclear fuel fabrication)
- Contract administration
- Supervision of the procurement quality group (reviews procurement documents for inspection planning, performs audits and surveys of suppliers, including access authorization programs, and conducts receipt inspections)
- Supervision of the materials coordination group

- Supervision of material storage (except where material has been issued to, and remains in the custody of, the Plant). Procedures related to these activities are covered principally in the Nuclear Procurement and Storage Manual.
- Management of quality related records, drawings and manuals
- Management and control of software development



d. Quality Programs

The Director, Quality Programs, reporting to the Senior Vice President, Nuclear Operations, has the responsibility to assure that the requirements of the Quality Program are implemented.

He has the authority and organizational freedom to:

- Identify quality problems
- Initiate, recommend or provide possible solutions and Verify the implementation of solutions

The Director, Quality Programs, has the authority to:

- Control further processing (including the authority to hold up work that is nonconforming), delivery, or installation of a nonconforming item or conduct of a nonconforming activity, until the proper disposition of the deficiency or unsatisfactory condition has been approved. Nonconformances are violations of the Quality Program requirements. The Director, Quality Programs, has delegated this authority to the Manager, Nuclear Quality Assessments, the Supervisor, Quality Systems, and the Supervisor, Nuclear Quality Control.
- Take decisions regarding work that is nonconforming directly to other levels of FPC management. He is independent of groups or functions directly responsible for performing specific work activities affecting quality.

The Director, Quality Programs is responsible for assuring the implementation of the Quality Programs Department training program.

The Director, Quality Programs, is in charge of an organization consisting of the following elements:

- Nuclear Quality Assessments
- Quality Systems
- Nuclear Quality Control

The functions of these elements are defined below:

Nuclear Quality Assessments

The Manager, Nuclear Quality Assessments is responsible for:

- Conducting quality assurance audits required by 10 CFR 50 Appendix B, the responsibilities of the Nuclear General Review Committee as described in FSAR Section 12.8, and FPC's commitments to ANSI N18.7 as clarified in Table 1-3



- Conducting external audits of FPC environmental monitoring contractors
- Acting as the FPC representative for the Cooperative Management Audit Program (CMAP), through which FPC periodically reviews the status and adequacy of its Quality Program
- The development and implementation of a QA evaluation program that encompasses all aspects of nuclear plant operations, maintenance, modifications, and other related activities

#### Quality Systems

The Supervisor, Quality Systems is responsible for:

- Maintaining the interface with Nuclear Operations for all matters relating to the FPC Quality Program and related commitments
- Maintenance of the Quality Program, Departmental administrative procedures and programs
- Developing, analyzing and reporting trends of quality activities
- The review of quality documents
- Modeling of processes of selected Nuclear Operations activities

#### Nuclear Quality Control

The Supervisor, Nuclear Quality Control (NQC) is responsible for the (NQC) inspection program, which includes the inspection of maintenance, modification, and test activities.

#### 3. Nuclear General Review Committee

Refer to Section 12.8.2.

#### 4. Plant Review Committee

Refer to Section 12.8.

#### 5. Supervisor, Material Technology

The Supervisor, Material Technology, reporting through the Manager, Power Plant Support Services, to the Director, Fossil Operations Engineering and Technical Services, is responsible for providing engineering services for fossil, nuclear and other company departments. This organization provides expertise involving metallurgy, welding, coating, non-destructive examination, and other related technologies.

#### 1.7.1.2 Quality Program

This section (and the remainder of Section 1.7) describes the FPC Quality Program for Crystal River Unit 3 during the operational phase. The operational phase began with the commencement of fuel loading and ends with completion of plant decommissioning.

Section 1.7 of the CR-3 FSAR is management's summary of the quality requirements applicable to Crystal River Unit 3 during the operational phase.

The Quality Program complies with the requirements of 10 CFR 50, Appendix B. This program requires that all persons performing quality activities associated with the operation of Crystal River Unit 3 comply with the program. FPC conducts or delegates the responsibility to conduct audits of the program activities.

The Quality Program takes into account the need for special controls, processes, tests, equipment, tools and skills to obtain the required quality.

Managers/Supervisors selecting personnel shall assure that the qualifications stated in the job description meet or exceed the ANSI N18.1 education and experience requirements identified in the job description. Managers/supervisors will ensure that an individual being selected meets the minimum education and experience requirements of ANSI N18.1-1971 (as clarified in Table 1-3).

FPC has an indoctrination and training program for personnel performing quality activities to assure that they are knowledgeable of the Quality Program's procedures and requirements. The indoctrination and training program includes appropriate procedures and personnel records. Personnel responsible for performing quality activities are instructed as to the purpose, scope and implementation of the quality-related manuals, instructions, and procedures. Personnel performing quality activities are trained and qualified in the activity being performed.

Quality activities such as inspection and test are done with appropriate equipment and under suitable conditions. Housekeeping and cleanliness controls are implemented through procedures. These controls meet the requirements of ANSI N18.7, Section 5.2.10, ANSI N45.2.1 and ANSI N45.2.3 as each is clarified in Table 1-3.

FPC's organizational structure and the functional responsibility assignments assure that:

1. Attainment of program objectives is accomplished by those who have been assigned responsibility for performing work. This may include interim examinations, checks, and inspections of the work by the individual performing the work.
2. Verification of conformance to established program requirements is accomplished by a qualified person who does not have responsibility for performing or directly supervising the work. The method and extent of such verification shall be commensurate with the importance of the activity to plant safety and reliability as clarified by Table 1-3 (NRC Regulatory Guide 1.74, Item 4).

3. In structuring the organization and assigning responsibility, quality assurance should be recognized as an interdisciplinary function involving many organizational components and, therefore, should not be regarded as the sole domain of a single quality assurance group. Quality assurance encompasses many functions and activities and extends to various levels in all participating organizations, from the top executive to all workers whose activities may influence quality.

The FPC Quality Program applies to structures, systems and components as defined in FSAR Section 1.6.4, equipment in the FPC "Safety Listing" and may be applied to other equipment and activities at FPC management discretion.

FPC regularly reviews the status and adequacy of its Quality Program through periodic reviews conducted at least once every two years. In addition responsible management reviews audit reports and corrective actions of that part of the Quality Program which they are implementing.

Changes to the Quality Program which result in more stringent requirements will be entered in appropriate implementing procedures within 90 days of the Quality Program change unless otherwise specified in the commitment/requirement to change the Quality Program or unless a longer period is evaluated and accepted by the Director, Quality Programs. All other Quality Program changes will be reflected in appropriate implementing procedures at their next revision.

The FPC Quality Program meets the requirements of the Regulatory Guides and ANSI Standards as defined in Section 1.7.2 (and clarified in Table 1-3).

For activities where quality considerations are subject to interpretation, the management responsible for the activity shall also be responsible for assuring that programmatic controls are applied. This in no way negates the need for clear management controls for all safety-related activities. Quality Programs Department personnel evaluate and verify that controls are in place and effectively implemented through inspection, surveillance activities and audit activities.

#### 1.7.1.3 Design Control

FPC's Nuclear Engineering Department verification engineer provides for an independent review of safety-related design changes. This review assures that the design activities are in accordance with ANSI N45.2.11 as clarified in Table 1-3.

Maintenance or modifications which may affect safety-related structures, systems, or components are performed in a manner that ensures quality requirements, material specifications, and inspection requirements are met. Maintenance or modifications of safety-related equipment are planned and performed in accordance with written procedures, documented instructions, or drawings appropriate to the circumstances which conform to applicable codes, standards, specifications, and criteria as clarified in Table 1-3.

#### 1.7.1.4 Procurement Document Control

Procurement documents are reviewed by qualified personnel, prior to purchase, to assure that quality requirements have been specified. Individuals reviewing these procurement documents are not involved with the other phases of the procurement activity. These reviews are performed and documented in accordance with approved written procedures.

FPC's Quality Program contains provisions which require that:

1. Procedures are established which clearly delineate the sequence of actions to be accomplished in the preparation, review, approval and control of procurement documents and which identify those positions or groups responsible for performing those functions.
2. Review of and concurrence with the procurement documents are performed by independent procurement quality personnel to assure that the quality requirements are stated. This review is to determine that quality requirements can be inspected and controlled, that there is adequate acceptance or rejection criteria, and that the procurement document has been prepared in accordance with FPC Quality Program procedure requirements.
3. Documented evidence of the review and approval of procurement documents is provided and available for verification.
4. Procurement documents identify those 10 CFR 50 Appendix B requirements that must be complied with by the supplier's quality program. Details regarding evaluation and selection of suppliers are stated in the implementing documents of the Quality Program.

5. Procurement documents contain or reference, as applicable, basic technical requirements such as regulatory requirements and design bases and identify the documentation to be prepared, maintained, submitted, and made available to FPC for review and/or approval. FPC's procurement documents include provisions for control of nonconformances.
6. Procurement documents contain the requirements for the retention, control, and maintenance of records as appropriate.
7. Procurement documents contain the right of access to vendor's facilities and records for source inspection and audit by FPC.
8. Changes and/or revisions to a procurement document are subject to review and approval requirements at least equivalent to those for the original document.

#### 1.7.1.5 Instructions, Procedures and Drawings

FPC's Quality Program contains requirements to assure that each of the 18 criteria within 10 CFR 50, Appendix B are delineated, accomplished, and controlled in accordance with approved written procedures.

FPC's Quality Program contains provisions which require that instructions, procedures, or drawings include appropriate quantitative (such as dimensions, tolerances, and operating limits) or qualitative (such as workmanship samples) acceptance criteria for determining that quality activities have been satisfactorily accomplished.

Written procedures are adhered to in matters relating to nuclear safety. The program identifies when written procedures shall be followed step-by-step. In order to properly document that procedural steps are verified as required, each step of the procedure requiring verification is initialed or otherwise acknowledged when completed.

#### 1.7.1.6 Document Control

FPC has a document control system for documents which prescribe activities affecting quality.

FPC's Quality Program contains provisions which require that:

1. Measures are established to review documents, such as instructions, procedures, and drawings (and changes thereto) prior to release to assure that the quality requirements are sufficiently, clearly, and accurately stated.



2. Changes to documents are reviewed and approved by the same organizations that performed the original review and approval unless delegated by the appropriate FPC organization to another qualified responsible organization.
3. The reviewing organization(s) has access to pertinent background information upon which to base its approval and has an adequate understanding of the requirements and intent of the original document.
4. Approved changes are promptly included with instructions, procedures, drawings, and other appropriate documents.
5. Obsolete or superseded documents are controlled to prevent their use.
6. Documents are available at the start of the work for which they are needed.
7. A method for identifying the current revision of instructions, procedures, and drawings is established and implemented. This information is updated and distributed as necessary to predetermined responsible personnel.

As a minimum under this criteria, the controlled documents include:

1. Design specifications.
2. Design, manufacturing, construction, and installation drawings.
3. Quality Administrative Procedures and plant operating procedures.
4. Manufacturer inspection and testing instructions.
5. Procurement documents.
6. Maintenance, repair, and modification instructions.
7. Test surveillance instructions.
8. Refueling instructions.
9. In-service inspection instructions.
10. Other procedures per Regulatory Guide 1.33, as clarified in Table 1.3. |



#### 1.7.1.7 Control of Purchased Material, Equipment and Services

Vendor evaluation surveys to qualify potential suppliers in accordance with FPC approved written procedures and in compliance with ANSI N18.7, Section 5.2.13 and ANSI N45.2.13 as each is clarified in Table 1-3, are conducted by FPC or through qualified contractors. Suppliers' quality programs are reviewed and concurred with prior to implementation of activities.

Procurement of certain commercial grade commodities may be qualified for safety-related applications on the basis of current industrial controls which limit the possibility of variation among items. Commodity item suppliers are excluded from use for safety-related purchases upon evidence of poor Quality History; otherwise specific supplier approval is not required for commodity purchases.

FPC assures that quality requirements of the purchase document have been met, using source inspection, receipt inspection or document review, as appropriate.

#### 1.7.1.8 Identification and Control of Materials, Parts and Components

FPC has established measures for the identification and control of materials, parts, and components.

FPC's Quality Program contains provisions which require that:

1. Procedures are established which describe identification and control of material, parts, and components, including partially fabricated assemblies.
2. Identification requirements are determined during the initial planning stages (i.e., during generation of specification and design drawings).
3. Identification is specified to the extent that the item identified can be traced to the associated documentation, such as drawings, specifications, purchase orders, manufacturing and inspection documents, and physical or chemical mill test reports.
4. The degree of identification is specified on the design drawing or in referenced technical documents.
5. Measures are provided to assure that the location and method of identification do not affect the function or quality of the item being identified.
6. Measures are provided for the verification of correct identification of materials, parts, and components prior to release for manufacturing, shipping, construction and installation.

#### 1.7.1.9 Control of Special Processes

Participating organizations provide written procedures for performance of special processes such as welding, heat treating, chemical cleaning, coating/painting, and non-destructive testing and include the requirements for qualification of personnel performing the work.

FPC's Quality Program contains provisions which require that:

1. Measures are established to assure adequate performance and control of special processes such as welding, heat treating, chemical cleaning, coating/painting and non-destructive testing.
2. Measures are established to assure that procedures, equipment and personnel connected with special processes are qualified in accordance with the requirements of applicable codes, standards, and specifications.
3. Measures are established to assure that special processes are performed by qualified personnel in accordance with approved written procedures. These procedures provide for recording evidence of verification and, if applicable, inspection and process results.

An active file is maintained on qualification records of all special process procedures and equipment, and personnel performing special processes.

5. Special process procedures and the credentials of qualified personnel are regularly reviewed to assure they are of the latest revision and that personnel qualifications have not expired.

#### 1.7.1.10 Inspections

Written procedures are required for the performance of in-process inspection. Inspection personnel are qualified in compliance with Regulatory Guides 1.8, 1.33, 1.58, and 1.146 as each Regulatory Guide is clarified in Table 1-3.

FPC's Quality Program contains provisions which require that:

1. Inspection personnel are independent from the individual or group physically performing the activity being inspected.
2. Inspection procedures, instructions and/or checklists are provided which document the date performed, by whom and/or by what equipment, the type of observation, the results, the data collected and its acceptability.

3. Inspection procedures or instructions are available for use prior to performing the inspection operation.
4. Measures are provided for qualifying the inspectors and maintaining the current status of each inspector's qualifications.
5. Measures are established to assure that inspection equipment is within calibration prior to performing an inspection operation.
6. Measures are provided for monitoring processing methods, equipment, and personnel if inspection of processed material is impossible or disadvantageous. Inspection and process monitoring are provided when control is inadequate without both.
7. Specific hold points are indicated in appropriate documents for mandatory witnessing or inspection beyond which work shall not proceed without the consent of FPC's designated representative.

#### 1.7.1.11 Test Control

Required tests are performed in accordance with approved written procedures to assure compliance with design documents. Testing activities are conducted during the operational phase to verify the compliance of components to design requirements.

FPC's Quality Program contains provisions which require that:

1. A test program is established to assure that all testing required to demonstrate that the item will perform satisfactorily in service is identified, documented, and accomplished in accordance with approved written procedures.
2. The test program covers the required tests, including, where appropriate, prototype qualification tests, proof tests prior to installation, preoperational tests, and operational tests.
3. Written test procedures are prepared which incorporate or reference the requirements and acceptance limits contained in applicable design and procurement documents.
4. The written test procedures include, as appropriate, instructions for test method and identification of test prerequisites such as:
  - a) calibrated instrumentation;
  - b) adequate and appropriate equipment;
  - c) trained, qualified, licensed and/or certified personnel;
  - d) preparation, condition, and completeness of item to be tested; and
  - e) suitable and controlled environmental conditions.

5. Test results are documented and evaluated to assure that test requirements have been satisfied.

#### 1.7.1.12 Control of Measurement and Test Equipment

FPC has established and implemented appropriate test and calibration procedures for test devices used to verify the acceptability of items within the Quality Program. Calibration records and controls are provided for measurement and test equipment in accordance with the requirements of ANSI N18.7, Section 5.2.16, ANSI N45.2.4 and ANSI N45.2.8 as each ANSI Standard is clarified in Table 1-3.

FPC's Quality Program contains provisions which require that:

1. Procedures are established which describe the calibration technique, calibration frequency, maintenance and control of measuring and test instruments, tools, gauges, fixtures, reference standards, transfer standards, and non-destructive test equipment to be used in the measurement, inspection, and monitoring of safety-related components, systems, and structures.
2. Measurement and test equipment is uniquely identified and has traceability to the calibration test data.
3. Measurement and test instruments are calibrated and maintained at specified intervals, based on the required accuracy, purpose, the degree of usage, stability characteristics, and other conditions affecting the measurement.
4. Measurement and test equipment is calibrated on or before the designated due date or before use.
5. When measurement and test equipment is found to be out of calibration, an investigation is conducted and documented to determine the validity of previous inspections performed and the acceptability of those items previously inspected.
6. Calibrating instruments have known valid relationships to a nationally recognized standard. If no national standard exists, the basis for calibration is documented.
7. Facilities used for calibrating sensitive or close tolerance measurement and test equipment provide an environment that is sufficiently controlled to allow the measuring device to be evaluated and calibrated to its required accuracy.

#### 1.7.1.13 Handling, Storage and Shipping

FPC's Nuclear Operations Materials and Controls Department is responsible for material handling, storage, and shipping activities for plant spare parts and operating supplies in accordance with approved written procedures and sound storage principles. These procedures meet the requirements of ANSI N18.7, Section 5.2.13.4 and ANSI N45.2.2 as they are clarified in Table 1-3.

#### 1.7.1.14 Inspection, Tests and Operating Status

FPC has approved written procedures to assure the proper marking of equipment denoting its status.

FPC's Quality Program contains provisions which require that:

1. Measures are established and documented to identify the inspection, test, and operation status of structures, systems, and components, which provide means for assuring that required inspections and tests performed are known throughout manufacturing, installation, and operation.
2. Measures are established to control the use of inspection and status indicators, including the authority for application and removal of tags, markings, and labels.
3. Measures to preclude bypassing of required inspections, tests, and other critical operations are provided through approved written procedures.
4. The status of nonconforming, inoperative, or malfunctioning structures, systems, or components is clearly identified to prevent use.

#### 1.7.1.15 Nonconforming Material, Parts, or Components

FPC has written requirements to be followed by persons performing quality activities, including contractors, to identify, document, segregate, disposition and report to FPC, any nonconformance, deviation or other condition adversely affecting quality.

FPC's Quality Program contains provisions which require that:

1. Measures and procedures are established to control the identification, documentation, segregation, review, disposition, and notification of the affected organization of nonconformances.
2. Documentation is provided which clearly identifies the nonconforming item, describes the nonconformance and disposition of the nonconformance, inspection requirements, and includes signature approval of the disposition.
3. Measures are established and documented defining the responsibility and authority for determining the disposition of nonconforming items and approving the disposition.



4. Nonconforming items are segregated from acceptable items (where feasible) and uniquely identified as nonconforming until properly dispositioned for use.
5. Acceptability of "rework" or "repair" of materials, parts, components, systems, and structures are verified by reinspection and/or testing of the item in accordance with approved written procedures.
6. Nonconforming items which are dispositioned "use as is" or "repair" are formally controlled through approved procedures or design changes.
7. Nonconformance reports are made part of the quality assurance records.

#### 1.7.1.16 Corrective Action

FPC has approved written procedures to be followed by persons performing quality activities, including contractors, to assure that corrective action is taken to preclude the recurrence of nonconformances, deviations or other discrepancies adversely affecting quality.

FPC's Quality Program contains provisions which require that:

1. Conditions adverse to quality, such as failures, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected.
2. Evaluation of nonconformance and determination of the need for corrective action are in accordance with approved written procedures.
3. Measures are established to determine the cause of the nonconformance and institute corrective action to preclude the recurrence of those significant conditions adverse to quality.
4. Measures are established to follow up on corrective actions to assure proper implementation and close out of the corrective action documentation.
5. Measures are established to document and report to appropriate levels of management significant conditions adverse to quality, cause of the conditions, and corrective action taken.

#### 1.7.1.17 Quality Assurance Records

FPC has established and implemented a system for the collection, storage, and maintenance of quality assurance records as required by the design documents, procurement documents, and Regulatory Guide 1.88 as clarified in Table 1-3. Records transmitted to the quality files are done so in accordance with approved written procedures.



FPC's Quality Program contains provisions which require that:

1. Quality assurance records are of two categories, lifetime and nonpermanent. (Nonpermanent records are required to show evidence that an activity was performed in accordance with applicable requirements but need not be retained for the life of the plant. Lifetime records are required to be maintained for the life of the plant while the particular item is installed in the plant or stored for future use).
2. Quality assurance records are those records that furnish documentary evidence of the quality of items and of activities affecting quality. (A document is considered a quality assurance record when the document has been completed).

These records include the results of reviews, inspections, tests, audits, monitoring of work performance and material analysis, the qualification of personnel, procedures, and equipment, training records, design drawings and subsequent modifications, specification reports, procurement documents, calibration procedures and reports, nonconformance and corrective action reports, and other records required by ANSI N18.7 as clarified in Table 1-3. The records are identifiable and retrievable per ANSI N45.2.9 as clarified in Table 1-3.

3. The inspection and test records contain the following:
  - a) Description of the types of operation.
  - b) Evidence of completion and/or verification of manufacturing inspection or test operation.
4. Records are stamped, dated, initialed, signed, or otherwise authenticated by authorized personnel.
5. Storage facilities are constructed, located, and secured to prevent destruction and minimize deterioration or loss of records. FPC maintains quality assurance records either in a vault for single copy records or as duplicate records in remote locations.

#### 1.7.1.18 Audits

Audits shall encompass, as a minimum, verification of compliance and effectiveness of implementation of regulations and license provisions. Objective evidence shall be examined to determine if the audited program is effective in performing its intended function.

~~The focus of the audits should be based on demonstrated performance. In this way, the audit can be tailored to address areas most in need of improvement.~~

FPC and its contractors use approved written procedures for planned audits of FPC's quality activities.

These audits include provisions for obtaining resolution of all deviations from written procedures used to perform the activities being audited. Audit procedures also include provisions for the dissemination of audit results to proper management levels for resolution of nonconformances and evaluation of the status of the Quality Program. FPC's Quality Programs Department will perform audits to assess the effectiveness of the FPC Quality Program as contained in this document. The results of these audits are reported to FPC management. The Quality Programs Department maintains records of audit results.

FPC's Quality Program contains provisions which require that:

1. A comprehensive system of planned and documented audits is used to verify compliance with all aspects of the Quality Program.
2. Audits are performed in accordance with approved written procedures or checklists and are conducted by appropriately trained personnel not having direct responsibilities in the areas being audited.
3. Audit results are documented. These results are then reviewed by management having responsibility in the area audited.
4. Deficient areas are reaudited when required based on the severity of discrepancies, extent of corrective action required and significance to safety, performance, and reliability.
5. Audits include an objective evaluation of quality-related practices, procedures, and instructions; the effectiveness of implementation; and the conformance with policy directives.
6. Audits include the evaluation of work areas, activities, processes, items, and the review of documents and records.
7. The following types of audits are performed:
  - a) Internal audits which provide a comprehensive independent verification and evaluation of quality procedures and activities to assure that they are meaningful and are effectively complying with the Quality Program requirements.
  - b) External audits of contractors, subcontractors, and vendors performing activities under the Quality Program. These audits include verification and evaluation of their quality program, procedures, and activities to assure that they are meaningful and are effectively complying with all aspects of the quality program and procurement requirements.
8. Audits are scheduled consistent with FPC's commitments to ANSI N18.7-1976/ANS 3.2-1988 and Regulatory Guide 1.33 as clarified in Table 1-3.

A prominent factor in developing and revising audit schedules is performance in the subject area. The audit schedule is revised so that weak or declining areas receive increased audit or surveillance coverage and strong areas receive less coverage. A maximum interval is set to ensure all areas receive periodic coverage.

The following areas will be audited as indicated below, but at least once per 24 months:

~~Audits shall encompass:~~

1. Every 24 months:

- a. The performance of activities required by the Quality Program Description to meet the criteria of 10 CFR 50, Appendix B.
- b. The conformance of facility operation to provisions contained within the Improved Technical Specifications and applicable license conditions.
- c. The performance, training, and qualifications of the entire facility staff.
- d. The results of actions taken to correct deficiencies occurring in the facility equipment, structures, systems, or method of operation that affect nuclear safety.
- e. The performance of activities required by the Quality Assurance Program for effluent and environmental monitoring.

2. Every 12 months:

- ~~a. The performance activities required by the Quality Assurance Program for effluent and environmental monitoring.~~
- ba. Special Nuclear Material and Fuel (10 CFR 50.57)
- ~~c. The conformance of facility operation to provisions contained within the Technical Specification and applicable license conditions.~~
- ~~d. The performance, training and qualifications of the entire facility staff.~~

~~3. Every 6 months:~~

- ~~a. The results of actions taken to correct deficiencies occurring in the facility equipment, structures, systems or method of operation that affect nuclear safety.~~

34. In accordance with the associated program or plan: |
- a. The Facility Fire Protection Program and implementing procedures.
  - b. The Radiological Environmental Monitoring Program and the results thereof.
  - c. The Offsite Dose Calculation Manual and implementing procedures.
  - d. The Process Control Program and implementing procedures for solidification of radioactive wastes.
  - e. The Physical Security Program
  - f. The Fitness For Duty Program
  - g. Emergency Preparedness Program
  - h. Access Authorization Program
  - i. The Radiation Protection Program

45. When appropriate - no frequency requirement |
- a. Any other area of facility operation considered appropriate by the NGRC or the Senior Vice President, Nuclear Operations.

9. Audit personnel qualifications meet the requirements of Regulatory Guide 1.146, as clarified in Table 1-3.

Audit reports encompassed by the section above, shall be forwarded to the Senior Vice President, Nuclear Operations and to management positions responsible for the areas audited within 30 days after completion of the audit.

#### 1.7.2 PROGRAM COMMITMENT

During the operation phase, FPC commits to comply with the requirements of the ANSI Standards listed in Table 1-3 and to implement the Regulatory Positions of the Regulatory Guides listed in Table 1-3, as clarified in that Table. Based on this commitment, FPC considers and will refer to such Regulatory Positions as requirements. When Regulatory Guides or ANSI Standards are superseded by an approved revision, that revision will not be implemented unless the FSAR is modified accordingly.

### 1.7.3 QUALITY ASSURANCE STAFF

Persons performing quality assurance functions, as defined in 10 CFR 50 Appendix B, conduct reviews and audits of FPC departments, suppliers and contractors that perform safety-related functions in connection with the operation, refueling, testing, maintenance and modification of Crystal River Unit 3. These reviews and audits are performed in accordance with approved written procedures and in compliance with approved minimum requirements for audit frequency. Persons performing quality assurance functions are authorized to identify quality problems and may recommend to FPC management that work be stopped under totally unacceptable conditions. Such persons have the organizational freedom to effectively perform the quality assurance functions.

### 1.7.4 GLOSSARY OF TERMS

Terms used in the FPC Quality Program are defined below or in those Regulatory Guides and ANSI Standards committed to by FPC, as clarified in Table 1-3.

#### 1. Quality Activity

The term "quality activity" is a general term used to describe activities within the total Quality Program. The purpose of using the term "quality activity" is to reserve the words "control" and "assurance" for those specific functions of the Quality Program defined as "quality control" and "quality assurance."



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