



June 22, 2016

L-2016-129  
10 CFR 50.54(a)(3)

ATTN: Document Control Desk  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Re: Florida Power and Light Company  
St. Lucie Units 1 and 2, Docket Nos. 50-335 and 50-389  
Turkey Point Units 3 and 4, Docket Nos. 50-250 and 50-251

NextEra Energy Seabrook, LLC  
Seabrook Station, Docket No. 50-443

NextEra Energy Duane Arnold, LLC  
Duane Arnold Energy Center, Docket No. 50-331

NextEra Energy Point Beach, LLC  
Point Beach Units 1 and 2, Docket Nos. 50-266 and 50-301

Subject: NextEra Energy Quality Assurance Topical Report (QATR FPL-1) Revision 19  
Annual Submittal

Reference: Letter L-2015-184 from Mark Crosby, NextEra Energy, to USNRC, Submittal of  
Quality Assurance Topical Report (QATR FPL-1) Revision 17, dated June 30,  
2015.

Pursuant to 10 CFR 50.54(a)(3), attached is the annual update of the Florida Power and Light Company (FPL), NextEra Energy Seabrook, LLC, NextEra Energy Duane Arnold, LLC, and NextEra Energy Point Beach, LLC, Quality Assurance Topical Report (QATR), FPL-1. This letter satisfies the 10 CFR 50.54(a)(3) requirement to provide the NRC with an update of changes to the quality assurance program description that did not reduce commitments in the program description and, therefore, did not require NRC approval prior to implementation.

Revision 19 is the current version of the QATR in use and became effective on March 11, 2016. A summary of the changes for Revisions 18 and 19 of the QATR is provided in Enclosure 1 of this letter. Enclosure 2 of this letter provides a copy of Revision 19 of the QATR for information purposes only.


Q004  
T010  
NRK

I certify under penalty of perjury that the foregoing is true and correct.

Executed on the 22 of June, 2016.

Should there be any questions or need for additional information, please contact me at (561) 694-4287.

Respectfully,



Brian Booth  
Manager Performance Assessment, Nuclear Oversight

Enclosures:    1. NextEra Energy QATR (FPL-1) Change Summary (June 2016)  
                     2. NextEra Energy QATR (FPL-1) Current Version (Revision 19)

cc:      Regional Administrator, Region I  
         Regional Administrator, Region II  
         Regional Administrator, Region III  
         USNRC Project Manager, Turkey Point and St. Lucie  
         Senior Resident Inspector, USNRC, Turkey Point  
         Senior Resident Inspector, USNRC, St. Lucie  
         USNRC Project Manager, Seabrook Station  
         Senior Resident Inspector, USNRC, Seabrook Station  
         USNRC Project Manager, Duane Arnold  
         Senior Resident Inspector, USNRC, Duane Arnold  
         USNRC Project Manager, Point Beach  
         Senior Resident Inspector, Point Beach

**NextEra Energy  
QATR (FPL-1)  
June 2016**

**ENCLOSURE 1**

**NextEra Energy  
QATR (FPL-1)  
Change Summary**

**NextEra Energy Quality Assurance Topical Report Change Summary**  
**June 2016**  
**(Page 1 of 3)**

**ENCLOSURE 1**

Revision # Issue Date (QATR Revision)	Page #	Change / Reason of Change	Basis for Concluding that the Revised Program Continues to Satisfy 10 CFR 50 Appendix B & Commitments Previously Accepted by the NRC
Signature Page Table of Contents Revision Summary	2 - 3 4 70 - 71	The Signature Page, Table of Contents, and Revision Summary is updated at each revision to reflect current signatures, most recent revision of all pages, and descriptions of most recent changes within the QATR.	
Revision 18	14  10 11 12 13 14 72 73	<p><b>QPRR QR045:</b> Change "Director of Emergency Preparedness" to "Manager of Emergency Preparedness" due to the position Director of Emergency Preparedness being downgraded to Manager of Emergency Preparedness when the Director of Emergency Preparedness retired.</p> <p><b>QPRR QR046:</b> This revision has been prepared to incorporate the Vice President Fleet Technical Support organizational announcement made on April 30, 2015, and the Chief Nuclear Officer organizational announcement made on August 11, 2015. The April 30, 2015 announcement contains the addition of a General Manager CFAMs and Projects CFAM position and the realignment of the Director Fleet Design Engineering under the Vice President Fleet Technical Support. The August 11, 2015 announcement contains the realignment of the Nuclear Operations and Fleet Technical Support functions to the Chief Nuclear Officer. This revision also streamlines the A.2 Organization and Appendix E Corporate Organization Chart QATR sections to show senior management and interfacing positions reporting to the Chief Nuclear Officer and above.</p>	<p>This is a position title change only and does not affect any commitments.</p> <p>This change was evaluated in accordance with 10 CFR 50.54(a) requirements. The change is an Organizational revision and persons and organizations performing quality functions continue to have the requisite authority and organizational freedom, including sufficient independence from cost and schedule when opposed to safety considerations and therefore this is not considered a reduction in commitment.</p>

# NextEra Energy Quality Assurance Topical Report Change Summary

June 2016

(Page 2 of 3)

## ENCLOSURE 1

Revision # Issue Date (QATR Revision)	Page #	Change / Reason of Change	Basis for Concluding that the Revised Program Continues to Satisfy 10 CFR 50 Appendix B & Commitments Previously Accepted by the NRC
Revision 18 (Continued)	57	<b>QPRR QR047:</b> The proposed revision to the QATR Appendix C was submitted by Engineering in order to align fleet procedures, site procedures and the QATR by adding the following two additional categories to the definition of "Quality Related": (1) Instrumentation used in post accident monitoring and classified as Category 3 in response to the requirements of Regulatory Guide 1.97 (some Category 2 instruments may also be classified as Quality Related); and (2) Items or services that are subject to unique quality assurance requirements due to specific NRC imposed regulatory requirements.	<p>Selected elements of the Quality Assurance Program are applied to certain quality related equipment and activities that are not safety related, but support safe and reliable plant operations, or where other regulatory or industry guidance establishes program requirements. This quality related classification is applied to selected equipment, components, structures and services designed to support and/or protect the safety function of safety related equipment.</p> <p>The proposed revision to the QATR definition of "Quality Related" was evaluated in accordance with 10 CFR 50.54(a) requirements and determined to not constitute a reduction to the commitments in the quality assurance program description as accepted by the NRC. This evaluation was based upon the proposed revision adding additional non safety related categories to the definition of "Quality Related". Therefore, the proposed revision is not considered to be a reduction in commitment.</p>

# NextEra Energy Quality Assurance Topical Report Change Summary

June 2016

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## ENCLOSURE 1

Revision # Issue Date (QATR Revision)	Page #	Change / Reason of Change	Basis for Concluding that the Revised Program Continues to Satisfy 10 CFR 50 Appendix B & Commitments Previously Accepted by the NRC
Revision 19	9 10 11 12 13 72	<b>QPRR QR048:</b> The changes incorporated within this revision include both Administrative and Organizational (Conforming) changes. The conforming change results from a senior management organizational announcement and will be distributed "For Information Only" to affected organizations as described by NA-AA-210-1000, Section 4.3.B. (2). The administrative change incorporates a functional responsibility description which was omitted from QATR Section A.2.1.2.h (Revision 18). As provided by NA-AA-210-1000, Section 4.3.C. (1), administrative changes only require approval of the NOS QAPRC member, the QAPRC Chairperson and the Director Nuclear Assurance.	This change was evaluated in accordance with 10 CFR 50.54(a), Conditions of License requirements and NA-AA-210-1000, Quality Assurance Program Administration (Attachment 1). The Organizational and Administrative Changes described do not result in reduction of any QA Program commitment for the following reasons: (1) Organizational revisions that ensure that persons and organizations performing quality assurance functions continue to have the requisite authority and organizational freedom, including sufficient independence from cost and schedule when opposed to safety considerations (paragraph vi). (2) Quality Assurance program changes involving administrative improvements and clarifications, spelling corrections, punctuation or editorial items. (paragraph vii)

**NextEra Energy  
QATR (FPL-1)  
June 2016**

**ENCLOSURE 2**

**NextEra Energy  
QATR (FPL-1)  
Revision 19**



Florida Power and Light Company,  
NextEra™ Energy Seabrook, LLC,  
NextEra™ Energy Duane Arnold, LLC,  
and  
NextEra™ Energy Point Beach, LLC

## Quality Assurance Topical Report

### FPL-1



**NextEra Energy**  
**Quality Assurance Topical Report (FPL-1)**

**POLICY STATEMENT**

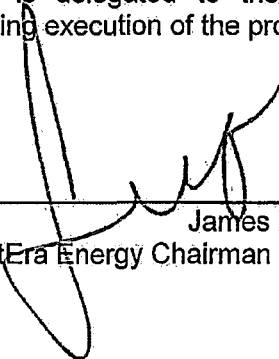
Florida Power and Light Company, NextEra Energy Seabrook, LLC, NextEra Energy Duane Arnold, LLC, and NextEra Energy Point Beach, LLC (hereafter referred to collectively as NextEra Energy) shall maintain and operate nuclear plants in a manner that will ensure the health and safety of the public and workers. Facilities shall be operated in compliance with the requirements of the Code of Federal Regulations, the applicable Nuclear Regulatory Commission (NRC) Facility Operating Licenses, and applicable laws and regulations of the state and local governments.

The Quality Assurance Program (QAP) described herein and associated implementing documents provide for control of activities that affect the quality of safety related nuclear plant structures, systems, and components. The QAP is also applied to certain quality related equipment and activities that are not safety related, but support safe plant operations, or where other regulatory or industry guidance establishes program requirements.

The Quality Assurance Topical Report (QATR) is the top-level policy document that establishes the manner in which quality is to be achieved and presents our overall philosophy regarding achievement and assurance of quality. Implementing documents assign more detailed responsibilities and requirements and define the organizational interfaces involved in conducting activities within the scope of the QATR. Compliance with the QATR and implementing documents is mandatory for personnel directly or indirectly associated with implementation of the QAP.

Responsibility for developing, implementing, and verifying execution of the Quality Assurance Program is delegated to the Chief Nuclear Officer and authority for developing and verifying execution of the program to the Director Nuclear Assurance.

Signed:

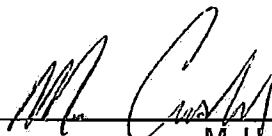


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James L. Robo  
NextEra Energy Chairman and Chief Executive Officer

NextEra Energy  
Quality Assurance Topical Report (FPL-1)

Approved By:



M. H. Crosby  
Director Nuclear Assurance

3/8/16

Date



M. K. Nazir  
President and Chief Nuclear Officer, Nuclear Division

3/9/16

Date

**NextEra Energy**  
**Quality Assurance Topical Report (FPL-1)**

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The following pages have been affected in Revision 19:

4, 9, 10, 11, 12, 13, 71, 72

**NextEra Energy**  
**Quality Assurance Topical Report (FPL-1)**

**INTRODUCTION**

The Quality Assurance Topical Report (QATR) describes the methods and establishes quality assurance program and administrative control requirements which comply with the criteria of 10 CFR 50 Appendix B, and meets the requirements of Regulatory Guides and Industry Standards referenced in Section A.7 of this report. The Topical Quality Requirements and attached Policy Statement, together with Quality Instructions document the Program and Policy with regard to Quality Assurance. This Program shall apply to Florida Power & Light's St. Lucie Nuclear Plant, Turkey Point Nuclear Plant, and NextEra Energy's Seabrook Station, Duane Arnold Energy Center, and Point Beach Nuclear Plant and shall be implemented at each plant site throughout the operating life of these nuclear plants.

The requirements of the Quality Assurance Program shall apply to nuclear safety related structures, systems, and components as identified in the Safety Analysis Report or Q-List for each nuclear unit. Additionally, the requirements of the Quality Assurance Program shall apply to all NextEra Energy, contractor, or consultant organizations performing activities affecting the quality of safety related structures, systems, and components of the nuclear power plants. Portions of the Quality Assurance Program requirements are also applicable to quality related items and services and non-safety related structures and components subject to an Aging Management Program (AMP) for license renewal. Those portions applicable to specific quality related items or services and non-safety related structures and components subject to an Aging Management Program (AMP) for license renewal shall be delineated in appropriate instructions.

This QATR is organized and formatted to respond to NRC Standard Review Plan (NUREG-0800) Section 17.3 (Revision 0 – August 1990). This approach was chosen because it best represents the commitment to the philosophy that each individual, properly trained and motivated, achieves the highest quality of performance of which they are capable. In addition, this emphasis is used on individual performance to reinforce the importance of self-assessments (by the group responsible for the activity) and independent assessments (by groups not responsible for the activity) to achieving excellence.

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**Quality Assurance Topical Report (FPL-1)**

**A. MANAGEMENT**

**A.1 Methodology**

The Quality Assurance Topical Report (QATR) is the top-level policy document that establishes quality policy and assigns major functional responsibilities for plants operated by NextEra Energy. The following requirements apply to all organizations and positions that manage and perform activities within NextEra Energy's scope. The organization is committed to implementing these requirements. Personnel engaged in supporting nuclear generation shall comply with the requirements of the Quality Assurance Program (QAP) described in this QATR. Contractors, or other supporting organizations, are required to comply with the QAP established by this QATR, or with their own programs having appropriate scope and controls in accordance with Section A.2. All facilities shall be operated in compliance with the applicable Code of Federal Regulations, NRC Operating Licenses, and the applicable laws and regulations of the state and local governments in which the facility is located.

The QAP comprises those planned and systematic actions necessary to provide adequate confidence that structures, systems, and components will perform their intended safety functions. The QAP consists of the NRC approved regulatory document that describes the quality assurance program elements (the QATR) along with the associated quality instructions. Quality instructions establish responsibilities and authority for carrying out important functions; establish common practices for certain activities such that the activity is controlled and carried out in a manner that meets QAP requirements; and establish detailed implementation requirements and methods. In addition, to provide a clear understanding of the operating philosophy, rules of practice are established pertaining to personnel conduct and control, including consideration of job related factors which can influence the effectiveness of operating and maintenance personnel, including such factors as number of hours at duty station, availability on-call of professional and supervisory personnel, methods of conducting operations, and preparing and retaining plant documents. Such rules are contained within appropriate implementing documents.

The QAP applies to activities affecting the performance of safety related structures, systems and components, including, but not limited to, design; procurement; fabrication; installation; modification; maintenance; repair; refueling; operation; training; inspection; and tests. A list, or other means of identification, of safety related Systems, Structures, and Components (SSC) under the control of the QAP is established and maintained for each operating plant. The technical aspects of the items are considered when determining program applicability, including, as applicable, the item's design safety function; results of probabilistic safety analysis, the ASME Code and the other references cited in Section A.7.3 of this QATR. The QAP is also applied to certain activities where regulations other than 10CFR50 establish QA program requirements for activities within their scope. Thus, the QATR is applied to the "important to safety" activities of radioactive waste shipping and independent spent fuel storage, as defined in those NRC regulations, as allowed by 10CFR71.101.f and 10CFR72.140.d.

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**Quality Assurance Topical Report (FPL-1)**

**A.1. Methodology (Continued)**

It is NextEra Energy's policy to assure a high degree of availability and reliability of its nuclear plants while ensuring the health and safety of the public and its workers. To this end, selected elements of the Quality Assurance Program are also applied to certain quality related equipment and activities that are not safety related, but support safe and reliable plant operations, or where other regulatory or industry guidance establishes program requirements. This quality related classification is applied to selected equipment, components, structures and services designed to support and/or protect the safety function of safety related equipment. Additionally, selected elements of the Quality Assurance Program are applied to emergency preparedness, security, radiation protection, and fire protection activities. Implementing documents establish program element applicability.

Activities affecting quality are prescribed by and performed in accordance with documents (such as instructions, procedures or drawings) of a type appropriate to the circumstances and which, where applicable, include quantitative or qualitative acceptance criteria. Such documents are prepared and controlled according to Section B.14. In addition, means are provided for dissemination to plant staff of instructions of both general and continuing applicability (e.g., dealing with job turnover and relief, designation of confines of the control room, limitations on access to certain areas), as well as those of short-term applicability (e.g., dealing with short-term operating conditions, publications, personnel actions). Provisions are included for review, updating, and cancellation of such instructions.

In establishing, implementing and maintaining the QATR, NextEra Energy commits to compliance with ASME NQA-1, 1994, Basic Requirement 2. QATR revisions are reviewed by senior management and approved by the Director Nuclear Assurance and the Chief Nuclear Officer. Changes to this QATR will be governed by and made in compliance with 10CFR50.54(a).

In establishing procedural controls, NextEra Energy commits to compliance with NQA-1, 1994, Basic Requirement 5. In addition, as stated in Position C.1 of Regulatory Guide 1.33, Revision 2, NextEra Energy commits to use Appendix A of Regulatory Guide 1.33 as guidance for establishing the types of procedures that are necessary to control and support plant operation. Requirements specific to procedures are also provided in Appendix B of this QATR.

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**Quality Assurance Topical Report (FPL-1)**

**A.2        Organization**

This section describes the organizational structure, functional responsibilities, levels of authority and interfaces for establishing, executing, and verifying QAP implementation. The organizational structure includes corporate functions and onsite functions at each plant. Appendix E contains organization charts depicting the organizational relationships for key management and functional groups both corporate and on-site. Implementing documents assign more specific responsibilities and duties, and define the organizational interfaces involved in conducting activities and duties within the scope of this QATR.

The Chief Nuclear Officer has overall responsibility for implementation of the quality program. The authority to accomplish quality assurance functions is delegated to the staff as necessary to fulfill the identified responsibilities.

Personnel executing performance activities and those performing verification activities are functionally independent to the degree commensurate with the activity's relative importance to safety. The method and extent of verification is commensurate with importance of the activity to plant safety and reliability. The organization executing independent assessment activities maintains independence from the organization(s) performing the activity being assessed. Management positions are established both offsite and onsite for carrying out the independent assessment functions. Individuals filling these positions:

- Have sufficient authority and organizational freedom to implement their assigned responsibilities, including authority to obtain access to records and personnel as needed to perform assessments.
- Report to a sufficiently high management level to ensure that cost and schedule considerations do not unduly influence decision making.
- Have effective lines of communication with persons in other senior management positions.
- Have no unrelated duties or responsibilities that would preclude full attention to assigned responsibilities.

Responsible individuals or organizations may delegate any or all of their responsibility. When work is delegated to personnel or organizations outside of NextEra Energy the responsibility for the program effectiveness and the work is retained by NextEra Energy, and the delegation shall be identified and described such that:

- The organizational elements responsible for the work are identified.
- Management controls and lines of communication are established.
- Responsibility for an appropriate QAP and extent of management oversight is established.
- Performance of delegated work is formally evaluated by NextEra Energy.

**NextEra Energy**  
**Quality Assurance Topical Report (FPL-1)**

**A.2        Organization (Continued)**

In establishing its organizational structure, NextEra Energy commits to compliance with NQA-1, 1994, Basic Requirement 1 and Supplement 1S-1. Management gives careful consideration to the timing, extent and effects of organizational structure changes.

**A.2.1       Corporate Organization**

The following positions have the described corporate functional responsibilities. Some titles and reporting relationships may vary between corporate and some sites, but in all cases there is a designated position to carry out the defined responsibilities.

**A.2.1.1     NextEra Energy Chairman and Chief Executive Officer (CEO)**

This position is responsible for overall corporate policy and provides executive direction and guidance for the corporation as well as promulgates corporate policy through the Company's senior management staff. Responsibility for implementing the Quality Assurance Program is delegated to the Chief Nuclear Officer and authority for developing and verifying execution of the program is delegated to the Director Nuclear Assurance.

**A.2.1.2     Chief Nuclear Officer (CNO)**

This position reports to the Chairman and CEO and has overall responsibility for the implementation of the QAP and for the Nuclear Division's activities including corporate responsibility for overall plant nuclear safety. This responsibility includes setting and implementing policies, objectives, and priorities to ensure activities are performed in accordance with QAP and other corporate requirements. The CNO is designated as the Company Officer responsible for ensuring that defects and non-compliances are reported to the NRC as required by 10CFR21.



**NextEra Energy**  
**Quality Assurance Topical Report (FPL-1)**

**A.2        Organization (Continued)**

**A.2.1.2.a   Vice President Fleet Technical Support**

This position reports to the CNO and is responsible for the following:

- Outages
- CFAMs
- Organizational effectiveness
- Fleet engineering
- Oversight and execution of design engineering
- Engineering document control, modifications and their implementation
- Plant design configuration control
- Projects
- Engineering Programs

Direct reports under this position are responsible for the following:

- Execution of Fleet Projects including capital projects, project control, project implementation, regulatory and ISFSI
- CFAM activities including maintenance, operations, work management, safety, chemistry, emergency preparedness, and radiation protection
- Outage planning and execution
- Nuclear Fuels
- Fleet Training
- Licensing (including Licensing actions)
- Security
- Performance Improvement (which includes self-assessment, corrective action, operating experience, document control, and records management)
- Interface with Nuclear Information Technology
- Fleet Engineering (including probabilistic safety analysis, nuclear fuels, engineering programs, equipment reliability, and the engineering chief's organization)
- Development and implementation of the programs associated with regulatory driven projects across the fleet

**A.2.1.2.b   Nuclear Engineering Director Fleet**

This position reports to the Vice President Fleet Technical Support and Site Engineering Directors report to this position with responsibilities for the following:

- Programs
- Systems
- Engineering Rapid Response Team (ERRT)

**NextEra Energy**  
**Quality Assurance Topical Report (FPL-1)**

**A.2 Organization (Continued)**

**A.2.1.2.c Director Fleet Design Engineering**

This position reports to the Vice President Fleet Technical Support and Site Design Managers report to this position with responsibilities for the following:

- Design engineering
- Engineering document control
- Modifications and their implementation
- Plant design configuration control

**A.2.1.2.d Vice President Projects**

This position reports to the Vice President Fleet Technical Support and Site Project Managers report to this position with responsibilities for the following:

- Fleet Projects (including capital projects, project control, project implementation, and ISFSI)
- Development and implementation of the programs associated with regulatory driven projects across the fleet.

**A.2.1.2.e Director Nuclear Assurance**

This position reports to and has direct access to the CNO for resolution of any areas in question. This position is responsible for the following:

- Activities that include establishing, maintaining, and interpreting quality assurance practices and policies (including this QATR)
- Managing independent assessment (Quality Assurance {QA}) and establishing quality control practices and policies for quality verification activities
- Performance of receipt inspection, through the Nuclear Oversight Manager(s), to verify that purchased items comply with procurement documents at stations where receipt inspection is performed by the Nuclear Oversight organization
- Facilitating actions deemed necessary to prevent unsafe plant conditions or a significant violation of the QAP; including Stop Work authority at the sites and corporate offices
- Periodically apprising the CNO of the status of the quality assurance program at NextEra Energy facilities and immediately apprising senior management of significant problems affecting quality; and verifying implementation of solutions for significant conditions adverse to quality identified by Nuclear Oversight
- Establishing the requirements for assessor and inspector certification; and providing for supplier evaluation
- Conduct of supplier assessments or surveys; and verification that supplier quality assurance programs comply with NextEra Energy requirements

**NextEra Energy**  
**Quality Assurance Topical Report (FPL-1)**

**A.2        Organization (Continued)**

**A.2.1.2.f   Vice President Integrated Supply Chain (ISC)**

This position reports to the CEO through the Executive Vice President Engineering, Construction and ISC and is responsible through ISC directors for the following:

- Procurement engineering
- Coordinating contract activities
- Negotiating, generating, and issuing procurement documents for required items and services supporting the operation, licensing, maintenance, modification, and inspection at the nuclear plants, and for materials and equipment to support the Nuclear Division staff
- Review of procurement documents to assure that technical and quality requirements are incorporated into the procurement documents that it authorizes
- Performance of receipt inspection to verify that purchased items comply with procurement document requirements (except at stations where receipt inspection is performed by the Nuclear Oversight Organization)
- Controlling materials received at each nuclear plant site in accordance with company policy and procedures

**A.2.1.2.g   Vice President Information Management**

This position reports to the NextEra Energy Vice Chairman and CFO and is responsible for the following:

- Nuclear information management such as computer-related hardware and software acquisition, deployment, maintenance, control and replacement; telecommunications
- Information / cyber security; and applicable training
- Interface with the Vice President Fleet Technical Support for cyber security
- Interface with the organizational effectiveness manager
- Management of information technology
- Nuclear cyber security
- Computer-related hardware/software acquisition
- The functions are supported via staff at both corporate and site levels

**NextEra Energy**  
**Quality Assurance Topical Report (FPL-1)**

**A.2        Organization (Continued)**

**A.2.2      Site Organization**

The following site management positions describe the typical site QAP functional responsibilities, which may be delegated to others as established in this document. The on-site operating organization includes one or more individuals knowledgeable in the following fields: nuclear power plant operation; nuclear power plant mechanical, electrical and electronic systems; nuclear engineering; chemistry and radiochemistry; radiation protection; and quality assurance. Some functions, such as operating experience, document control, or records management, may be aligned under different groups at different sites. Site procedures provide detailed organizational descriptions.

**A.2.2.1    Site Vice President (SVP)**

This position reports to the CNO and is responsible for the operation, maintenance, licensing, training, emergency planning, and modification of the plant. In this position, the SVP acts as a liaison between the plants and corporate and is accountable for ensuring that the company policy and procedures are properly implemented and continued at the nuclear site.

**A.2.2.1.a   Plant General Manager**

This position reports to the Site Vice President and is responsible for the safe operation of the nuclear plant. The Plant General Manager has control of the onsite resources necessary for the safe operation and maintenance regardless of organizational reporting.

In this position, the Plant General Manager assures the safe, reliable, and efficient operation of the plant within the constraints of applicable regulatory requirements, operating license, and the QAP. Functional areas of responsibility also include chemistry activities, environmental services, fuel handling (receipt, movement, and storage), health physics/radiological protection, operations and support, maintenance and production planning, and related procedures and programs. The Onsite Review Group serves the Plant General Manager in a technical capacity and provides review of plant safety and performance (see Appendix A).

**A.2.2.1.b    Licensing Manager**

This position reports to the SVP and is responsible for site regulatory interfaces.

**A.2.2.1.c    Performance Improvement Manager**

This position reports to either the Site Vice President or the Plant General Manager and is responsible for administration of the corrective action and self-assessment programs.

This position is also responsible for NUREG-0737, Action Plan Item I.B.1.2 technical review functions that St. Lucie Unit 2 and Seabrook Station are committed to regarding the oversight, implementation, and coordination of internal and external operating experience.

**NextEra Energy**  
**Quality Assurance Topical Report (FPL-1)**

**A.2        Organization (Continued)**

**A.2.2.1.d   Engineering Site Director**

This position reports functionally to the Site Vice President and interfaces with the General Manager Fleet Engineering (offsite) for governance and oversight. The position has functional areas of responsibility that include authority for day-to-day engineering support activities, engineering administration, system engineering, system testing, and technical support.

This position is also responsible for NUREG-0737, Action Plan Item I.B.1.2 technical review functions that St. Lucie Unit 2 and Seabrook Station are committed to and implement by system health monitoring, development of a quarterly system health report which provides system performance and status to senior management, and development and implementation of the Maintenance Rule Program.

**A.2.2.1.e   Training Site Manager**

This position reports to the Site Vice President and functionally interfaces with the Training Fleet Director (offsite) and is responsible for training. The Site Training Manager provides direction, control, and overall supervision of training personnel and training for all site personnel as required. Functional areas of responsibility include training support services, technical training, and operations training.

**A.2.2.1.f   Emergency Preparedness Manager**

This position reports to the Site Vice President and functionally interfaces with the Manager of Emergency Preparedness (offsite) and is responsible for maintaining and implementing the emergency plan for the station.

The following positions report directly offsite, but functionally report to a site position:

**A.2.2.2.a   Project Site Manager**

This position reports to the General Manager Fleet Projects with direct interface with the Site Vice President and is responsible for installing plant modifications as a result of design changes and implementing other major projects.

**A.2.2.2.b   Nuclear Oversight Manager**

This position reports to the Director Nuclear Assurance (offsite) and is responsible for site quality activities. Significant safety or quality issues requiring escalated action are directed through this position to senior management, as necessary. Functional responsibilities include conducting independent assessments of line and support activities; monitoring and assessing day-to-day station activities; stop work authority at the site; periodic reporting on the status and adequacy of the quality program; and providing quality verification and inspections.

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**A.3      Responsibility**

NextEra Energy retains and exercises the responsibility for the scope and implementation of an effective overall QAP. Positions identified in Section A.2 may delegate all or part of the activities of planning, establishing, and implementing the program for which they are responsible to others, but retain the responsibility for the program's effectiveness. Decisions affecting safety are made at the level appropriate for its nature and effect, and with any necessary technical advice or review.

Senior management is regularly apprised of assessment results evaluating the adequacy of implementation of the QAP through the assessment functions described in Section C.

NextEra Energy ensures that the QAP is properly documented, approved and implemented before an activity within the scope of the program is undertaken. Management is responsible to assure that processes and procedures comply with the QATR and other applicable requirements, and that employees comply with them. Individual managers ensure that personnel working under their management cognizance are provided the necessary training and resources to accomplish their assigned tasks. Managers and supervisors are responsible for timely and continuing monitoring of performance to verify that day-to-day activities are conducted safely and in accordance with applicable requirements.

As described in Section C.3, Nuclear Oversight is responsible to verify that processes and procedures comply with QATR and other applicable requirements, that such processes or procedures are implemented, and that management appropriately ensures compliance.

Documents that implement the quality program are approved by responsible management; distributed; and revised in accordance with procedures. Work within the scope of the QAP is accomplished in accordance with these documents.

In addition, operating personnel responsibilities include:

- The reactor operator's authority and responsibility for shutting down the reactor when it is determined that the safety of the reactor is in jeopardy or when operating parameters exceed any of the reactor protection system set-points and automatic shutdown does not occur.
- The responsibility to determine the circumstances, analyze the cause, and determine that operations can proceed safely before the reactor is returned to power after a trip or an unexplained or unscheduled power reduction.
- The senior reactor operator's responsibility to be present at the plant and to provide direction for returning the reactor to power following a trip or an unscheduled or unexplained power reduction.
- The responsibility to believe and respond conservatively to instrument indications unless they are proved to be incorrect.

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**A.3      Responsibility (Continued)**

- The responsibility to adhere to the plant's Technical Specifications.
- The responsibility to review routine operating data to assure safe operation.
- The responsibility to take action to minimize personnel injury or damage to the facility and to protect the health and safety of the public in the event of an emergency not covered by approved procedures.

In establishing QAP responsibilities, NextEra Energy commits to compliance with NQA-1, 1994, Basic Requirement 1 and Supplement 1S-1.

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**A.4 Authority**

When responsibility is delegated for planning, establishing, or implementing any part of the overall QAP, sufficient authority to accomplish the assigned responsibilities is delegated. Regardless of delegation, NextEra Energy retains overall responsibility.

Responsibility and authority to stop unsatisfactory work, as delineated in Section A.2, includes authority to control further processing, delivery, installation, operation or use of nonconforming items. This assures that cost and schedule considerations do not override safety considerations.

In establishing QAP authorities, NextEra Energy commits to compliance with NQA-1, 1994, Basic Requirement 1 and Supplement 1S-1.



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**A.5 Personnel Training and Qualification**

Personnel assigned to implement elements of the QAP must be capable of performing their assigned tasks. To this end, formal indoctrination and training programs are established and maintained for personnel performing, verifying or managing activities within the scope of the QAP to assure that suitable proficiency is achieved and maintained. Generating site and support staff minimum qualification requirements are as delineated in plant Technical Specifications or other appropriate documents. Other qualification requirements may be established but will not reduce those required by plant Technical Specifications. Sufficient managerial depth is provided to cover absences of incumbents. When required by code, regulation, or standard, specific qualification and selection of personnel is conducted in accordance with those requirements as established in the applicable procedures. Indoctrination may include the administrative and technical objectives, requirements of the applicable codes and standards, and the QAP elements to be employed. Training for positions identified in 10CFR50.120 is accomplished according to programs accredited by the National Nuclear Accrediting Board of the National Academy for Nuclear Training that implements a systematic approach to training. Records of personnel training and qualification are maintained.

In establishing qualification and training programs, NextEra Energy commits to compliance with NQA-1, Basic Requirement 2, Supplements 2S-1, 2S-2, 2S-3 and 2S-4, and Non-mandatory Appendix 2A-1 with the following clarifications and exceptions:

- For Supplement 2S-1: Inspections, examinations or tests may be performed by individuals in the same organization as that which performed the work, provided that (a) the qualifications of the inspector for an activity are equal to or better than the minimum qualifications for persons performing the activity, (b) the work is within the skills of personnel and/or is addressed by procedures, and (c) if work involves breaching a pressure-retaining item, the quality of the work can be demonstrated through a functional test. When a, b and c are not met, inspections, examinations or tests are carried out by individuals certified in accordance with Supplement 2S-1. Individuals performing visual inspections required by the ASME Boiler and Pressure Vessel Code are qualified and certified according to Code requirements.
- At all NextEra Energy plants except Point Beach, in lieu of being certified as Level I, II or III in accordance with Non-mandatory Appendix 2A-1 of NQA-1-1994, personnel performing operations phase independent quality verification inspections, examinations, measurements, or tests on material products or activities, that are in the same organization as that which performed the work, will be required to possess the same minimum level of qualification as that required for performing the task being verified. The verification shall be within the skills of these personnel and/or is addressed by procedures. Individuals responsible for the planning of such quality verification inspections and tests (i.e. establishing hold points and acceptance criteria in procedures, or determining who will be responsible for performing the inspections) will meet qualification requirements equivalent to those contained in Appendix 2A-1 and suitably trained for the function.

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**A.5 Personnel Training and Qualification (Continued)**

- In lieu of Nonmandatory Appendix 2A-1, NextEra Energy Point Beach does not establish levels of qualification/ certification for inspection personnel. Instead, NextEra Energy Point Beach establishes initial qualification requirements and determines individual qualification through evaluation of education, training and experience, and through demonstration of capability in performing the type of inspections expected on the job.
- In lieu of Supplement 2S-2, NextEra Energy will follow the applicable standard cited in the latest version(s) of Section XI of the ASME Boiler and Pressure Vessel Code approved by the NRC for use at NextEra Energy sites for qualification of nondestructive examination personnel.
- For Supplement 2S-3: The requirement that prospective Lead Auditors have participated in a minimum of five (5) audits in the previous three (3) years is replaced by the following, "The prospective lead auditor shall demonstrate his/her ability to properly implement the independent assessment (audit) process, as implemented by NextEra Energy according to Section C.3 of this QATR, to effectively lead an assessment team, and to effectively organize and report results, including participation in at least one nuclear independent assessment or audit within the year preceding the date of qualification." The term "audit" and "independent assessment" are synonymous and may be used interchangeably throughout the QAP. The demonstration process for prospective lead auditors is described in written procedures.
- For Supplement 2S-3: A 90-day grace period may be applied to the requirement for a documented annual evaluation of lead auditor proficiency. When the grace period is applied, the next due date for the activity is based upon the original scheduled date. However, in all cases the periodicity shall not exceed one year plus 90 days.

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**A.6        Corrective Action**

Management, at all levels, fosters a non-punitive ("no-fault") attitude toward the identification of conditions adverse to quality. This includes failures, malfunctions, deficiencies, deviations, defective material and equipment, abnormal occurrences, nonconformances, and out-of-control processes, including the failure to follow procedures.

A corrective action program is implemented to promptly identify, control, document, classify, and correct conditions adverse to quality. In addition, for significant conditions adverse to quality, the program provides for cause evaluation and corrective actions to prevent recurrence. Provisions are also made to ensure that corrective actions for significant conditions adverse to quality are completed as intended and are not inadvertently nullified by subsequent actions. Results of evaluations of conditions adverse to quality are analyzed to identify trends. Significant conditions adverse to quality and significant adverse trends are documented and reported to responsible management.

Nonconforming items are reviewed and accepted, rejected, repaired, or reworked, and are identified and controlled to prevent their inadvertent test, installation or use. Nonconforming items may be conditionally released for installation, test, energization, pressurization, or use if the conditional release will not adversely affect nor preclude identification and correction of the nonconformance. Disposition of conditionally released items are resolved before the items are relied upon to perform their safety-related functions. Conditional release evaluations are documented, reviewed, and approved prior to implementation.

In establishing requirements for corrective action, NextEra Energy commits to compliance with NQA-1, 1994, Basic Requirements 15 and 16, and Supplement 15S-1.

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**A.7 Regulatory Commitments**

**A.7.1**

Through this QATR, NextEra Energy commits to compliance with the following:

- 10CFR50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants"
- 10CFR Part 71, Subpart H, "Quality Assurance for Packaging and Transportation of Radioactive Material"
- 10CFR Part 72, Subpart G, "Quality Assurance for Licensing Requirements for the Independent Storage of Spent Nuclear Fuel and High-Level Radioactive Waste"
- 10CFR Part 21, "Reporting of Defects and Non-Compliance"
- General Design Criterion 1, of Appendix A to 10CFR Part 50 or 1967 Proposed Draft General Design Criterion I (for Point Beach and Turkey Point)
- 10CFR50.55a, "Codes and Standards"

**A.7.2**

When applicable, for Class 1, 2, and 3 items covered by Section III of the ASME Boiler and Pressure Vessel Code, the code Quality Assurance requirements are supplemented by the guidance of applicable regulatory guides (see Section A.7.3).

**A.7.3**

NextEra Energy also is committed to carrying out the provisions of certain nuclear quality assurance industry standards, other than ASME NQA-1. The extent of the commitment to each of the Regulatory Positions of related NRC Regulatory Guides and Generic Letters is specifically described below. Commitment to a particular Regulatory Guide does not constitute commitment to Regulatory Guides or other standards that may be referenced therein, unless otherwise noted.

- Regulatory Guide 1.8, "Qualification and Training of Personnel for Nuclear Power Plants" – commitments regarding qualification and training of personnel are described in Section A.5 of this QATR, which states that staff qualification requirements are as delineated in plant Technical Specifications or other documents, and that training for positions identified in 10CFR50.120 is accomplished according to programs accredited by the National Nuclear Accrediting Board of the National Academy for Nuclear Training.

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**A.7 Regulatory Commitments (Continued)**

- Safety/Regulatory Guide 1.26, Revision (site specific) “Quality Group Classifications and Standards for Water-, Steam-, and Radioactive Waste-Containing Components of Nuclear Power Plants” – Commitment to Safety/Regulatory Guide 1.26 is site specific, as required by the approved UFSAR/License at each site. Sites may use this guidance to assist in establishing the lists of equipment to which this QAP applies, or for other purposes.
- Regulatory Guide 1.28, Revision 3, August 1985, “Quality Assurance Program Requirements (Design and Construction)” (ASME NQA-1, 1983a) – For all NextEra Energy plants except Point Beach, NextEra Energy does not commit to comply with position C.1 of this Regulatory Guide for personnel performing operations phase independent quality verification inspections, examinations, measurements, or tests on material products or activities, that are in the same organization as that which performed the work. Point Beach does not commit to compliance with position C.1 of this Regulatory Guide; instead of establishing three levels of qualification provided in Nonmandatory Appendix 2A-1, NextEra Energy Point Beach establishes initial qualification requirements and determines individual qualification through evaluation of education, training and experience, and through demonstration of capability in performing the type of inspections expected on the job. See the specific exceptions to 2S-1 and 2A-1 contained in Section A.5 of this QATR. NextEra Energy complies with position C.2 for record retention times, and position C.3.2 for external audits, with the exception that for position C.3.2.2, the information described therein will be reviewed as it becomes available through its ongoing receipt inspection, operating experience, and supplier evaluation programs, in lieu of performing a specific evaluation on an annual basis. The results of the reviews are promptly considered for effect on a supplier’s continued qualification and adjustments made as necessary (including corrective actions, adjustments of supplier audit plans, and input to third party auditing entities, as warranted). Additionally, results are reviewed periodically to determine if, as a whole, they constitute a significant condition adverse to quality requiring additional action. In lieu of compliance with Regulatory Position C.3.1, independent assessment frequencies as described in Section C of this QATR are established. In lieu of NQA-1 1983a, NQA-1 1994 is used.
- Safety/Regulatory Guide 1.29, Revision (site specific) “Seismic Design Classification” – Some plants were designed, constructed and licensed based on criteria available prior to this Regulatory Guide being issued. The specific design criteria and seismic designations are reflected in each plant’s UFSAR, and in other docketed analysis. Thus, the commitment to Safety/Regulatory Guide 1.29 is site specific, as required by the approved UFSAR/License at each site. Sites may use this guidance to assist in establishing the lists of equipment to which this QAP applies, or for other purposes.

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**A.7 Regulatory Commitments (Continued)**

- Regulatory Guide 1.30, August 1972, "Quality Assurance Requirements for the Installation, Inspection and Testing of Instrumentation and Electric Equipment," (ANSI N45.2.4-1972/IEEE 336-1971) – NQA-1 1994, Subpart 2.4/IEEE 336-1985 is substituted for N45.2.4 in its commitment to Regulatory Guide 1.30. As noted in Regulatory Position C.1, Subpart 2.4 is being used in conjunction with NQA-1, Part 1, which replaced ANSI N45.2. As noted in Regulatory Position C.2, other industry standards may be referenced; the commitment in this QATR to NQA-1, Subpart 2.4 includes commitment to those standards to the extent necessary to implement Subpart 2.4 requirements. If NRC guidance applies to those referenced standards, it is followed. Regulatory Position C.3 indicates that the requirements of the endorsed standard should also be considered applicable during the operation phase of the nuclear power plant. This is addressed in Sections B.12 and B.16 of this QATR, which also establish any necessary exceptions or alternatives to the provisions of Subpart 2.4.
- Regulatory Guide 1.33, Revision 2, February 1978, "Quality Assurance Program Requirements (Operation)" (N18.7) – NQA-1 contains quality assurance requirements equivalent to those of ANSI N-18.7, and NextEra Energy has included in this QATR the remaining "administrative controls" elements from N-18.7 (1976). Therefore, NextEra Energy does not commit to compliance with the requirements of ANSI N-18.7. As recommended by Regulatory Position C.1, Appendix A of RG 1.33 is used as guidance in establishing the types of procedures required for plant operation and support. Regulatory Position C.2 is no longer considered valid, as the referenced standards and guidance have now been incorporated into ASME NQA-1 1994, or are addressed specifically in this section. NextEra Energy meets the guidance in Regulatory Position C.3 in that proposed changes to technical specifications or license amendments are reviewed by the independent review body, ORG, prior to submittal to the Commission for approval. In lieu of compliance with Regulatory Position C.4, assessment topics and frequencies are established as described in Section C.3 of this QATR. In lieu of compliance with Regulatory Position C.5, appropriate equivalent requirements have been established within this QATR.
- Regulatory Guide 1.36, Revision 0, February 1973, "Nonmetallic Thermal Insulation for Austenitic Stainless Steel" – Some of the current plants were committed to this Regulatory Guidance during original construction. Regulatory Guide 1.36 may be used for plant modifications on a case by case basis, but this QATR makes no generic commitment thereto.

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**A.7 Regulatory Commitments (Continued)**

- Regulatory Guide 1.37, March 1973, "Quality Assurance Requirements for Cleaning of Fluid Systems and Associated Components of Water-Cooled Nuclear Power Plants," (ANSI N45.2.1-1973) – NQA-1 1994, Subpart 2.1 is substituted for N45.2.1 in its commitment to Regulatory Guide 1.37. As noted in Regulatory Position C.1, other industry standards may be referenced; the commitment in this QATR to NQA-1, Subpart 2.1 includes commitment to those standards to the extent necessary to implement Subpart 2.1 requirements. If NRC guidance applies to those referenced standards, it is followed. Regulatory Positions C.3, C.4 and C.5 recommend alterations to certain provisions of N45.2.1. The provisions of NQA-1, Subpart 2.1 establish requirements that are consistent with those recommendations. Regulatory Position C.2 indicates that the requirements of the endorsed standard should be used during the operations phase "when applicable." This is addressed in Sections B.7 and B.16 of this QATR, which also establish any necessary exceptions or alternatives to the provisions of Subpart 2.1.
- Regulatory Guide 1.38, Revision 2, May 1977, "Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage, and Handling of Items for Water-Cooled Nuclear Power Plants," (ANSI N45.2.2-1972) – NQA-1 1994, Subpart 2.2 is substituted for N45.2.2 in its commitment to Regulatory Guide 1.38. As noted in Regulatory Position C.1.a, other industry standards may be referenced; the commitment in this QATR to NQA-1, Subpart 2.2 includes commitment to those standards to the extent necessary to implement Subpart 2.2 requirements. If NRC guidance applies to those referenced standards, it is followed. Regulatory Position C.1.b modifies a provision of N45.2.2 such that the minimum load for dynamic testing to re-rate hoisting equipment for special lifts becomes 110% of the rated load. NextEra Energy takes exception to the Storage Areas section (6.2.4) of NQA-1 and commits to "the use or storage of food, drinks, and salt tablet dispensers in any storage area shall be controlled and be limited to designated areas where such use or storage is not deleterious to stored items". The Handling section (7) of NQA-1, Subpart 2.2 defers to the provisions of Subpart 2.15. NextEra Energy does not commit to Subpart 2.15, as there is no current NRC guidance regarding the other provisions of this part. For purposes of compliance to Regulatory Guide 1.38, Position C.1.b, NextEra Energy commits to follow the guidance as stated (see Section B.7). Regulatory Positions C.1.c, C.1.e, C.2.a, C.2.b, C.2.c, C.2.d and C.2.e recommend alterations to certain provisions of N45.2.2. The provisions of NQA-1, Subpart 2.2 establish requirements that are consistent with those recommendations. Regulatory Position C.1.d indicates that the requirements of the endorsed standard should be used during the operations phase "when applicable." This is addressed in Section B.7 of this QATR, which also establishes any necessary exceptions or alternatives to the provisions of Subpart 2.2.

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**A.7 Regulatory Commitments (Continued)**

- Regulatory Guide 1.39, Revision 2, September 1977, "Housekeeping Requirements for Water-Cooled Nuclear Power Plants," (ANSI N45.2.3-1973) – NQA-1 1994, Subpart 2.3 is substituted for N45.2.3 in its commitment to Regulatory Guide 1.39. As noted in Regulatory Position C.1, other industry standards may be referenced; the commitment in this QATR to NQA-1, Subpart 2.3 includes commitment to those standards to the extent necessary to implement Subpart 2.3 requirements. If NRC guidance applies to those referenced standards, it is followed. Regulatory Position C.2 indicates that the provisions of section 3.2.3 of N45.2.3 are not part of the Regulatory endorsement. As NQA-1, Subpart 2.3, section 3.2.3 has the same wording as N45.2.3, the Regulatory Position is applicable and will be followed in implementation of Subpart 2.3. Regulatory Position C.3 indicates that the endorsed standard is "applicable for housekeeping activities during the operations phase that are comparable to those occurring during construction." This is addressed in Section B.7 of this QATR that also establishes any necessary exceptions or alternatives to the provisions of Subpart 2.3.
- Regulatory Guide 1.54, Revision 0, June 1973, "Quality Assurance for Protective Coatings Applied to Nuclear Power Plants" (N101.4-1972) - Commitment to Regulatory Guide 1.54 is site specific, as required by the approved UFSAR/License at each site.
- Regulatory Guide 1.94, Revision 1, April 1976, "Quality Assurance Requirements for Installation, Inspection, and Testing of Structural Concrete and Structural Steel During the Construction Phase of Nuclear Power Plants," (ANSI N45.2.5-1974) – NQA-1 1994, Subpart 2.5 is substituted for N45.2.5 in its commitment to Regulatory Guide 1.94; however, Subpart 2.5 includes requirements for soils and foundations which were not included in N45.2.5, and the commitment to Subpart 2.5 herein does not include commitment to those requirements. As noted in Regulatory Position C.1, other industry standards may be referenced; the commitment in this QATR to NQA-1, Subpart 2.5 includes commitment to those standards to the extent necessary to implement Subpart 2.5 requirements. If NRC guidance applies to those referenced standards, it is followed. Regulatory Position C.2 recommends using the general planning provisions of N45.2.5 in conjunction with Regulatory Guide 1.55, which has since been withdrawn; therefore, this position is no longer applicable. Regulatory Positions C.3 and C.4 recommend alterations to certain provisions of N45.2.5. The provisions of NQA-1, Subpart 2.5 are consistent with those recommendations. Applicability and use of Subpart 2.5 is addressed in Sections B.12 and B.16 of this QATR, which also establish any necessary exceptions or alternatives to the provisions of Subpart 2.5.
- Regulatory Guide 1.97, Revision 3, May 1983, "Instrumentation for Light-Water-Cooled Nuclear Power Plants to Assess Plant and Environs Conditions During and Following an Accident" (Table 1, paragraph 5) – In lieu of the Regulatory Guides listed in the Table, NextEra Energy commits to the Regulatory Guidance and industry standards for quality assurance as described in this QATR. Commitment to the technical provisions of Regulatory Guide 1.97 is site specific as addressed in each plant UFSAR or other licensing commitments.



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**A.7 Regulatory Commitments (Continued)**

- Regulatory Guide 1.116, Revision 0-R, May 1977, "Quality Assurance Requirements for Installation, Inspection, and Testing of Mechanical Equipment and Systems," (ANSI N45.2.8-1975) – NQA-1 1994, Subpart 2.8 is substituted for N45.2.8 in its commitment to Regulatory Guide 1.116. As noted in Regulatory Position C.1, other industry standards may be referenced; the commitment in this QATR to NQA-1, Subpart 2.8 includes commitment to those standards to the extent necessary to implement Subpart 2.8 requirements. If NRC guidance applies to those referenced standards, it is followed. Regulatory Position C.3 recommends using section 5 of N45.2.8 in conjunction with Regulatory Guide 1.68 for pre-operational, cold functional, and hot functional testing. While section 5 of NQA-1, Subpart 2.8 provides the same requirements, it is anticipated that NextEra Energy plants, since they are already beyond these tests, will not need to implement Regulatory Guide 1.68. If testing in accordance with Regulatory Guide 1.68 becomes necessary, NextEra Energy will comply with the guidance of the Regulatory Guide 1.116 position. Regulatory Position C.2 indicates that the endorsed standard should be "followed for those applicable operations phase activities that are comparable to activities occurring during the construction phase." This is addressed in Sections B.12 and B.16 of this QATR, which also establish any necessary exceptions or alternatives to the provisions of Subpart 2.8.
- Regulatory Guide 1.143, Revision 2, November 2001, "Design Guidance for Radioactive Waste Management Systems, Structures and Components Installed in Light-Water-Cooled Nuclear Power Plants" (Position C.7) – The intent of the quality assurance guidance cited in Position C.7 is met. Compliance with the remainder of the [technical] positions of Regulatory Guide 1.143 is site specific, as addressed in each plant UFSAR.
- Regulatory Guide 1.152, Revision 1, January 1996, "Criteria for Digital Computers in Safety Systems of Nuclear Power Plants" – None of the plants were committed to this Regulatory Guidance during original construction. Regulatory Guide 1.152 may be used for plant modifications on a case by case basis, but this QATR makes no generic commitment thereto.
- Regulatory Guide 1.155, Revision 0, August 1988, "Station Blackout" (Position C.3.5) - Quality Assurance guidance cited in Position C.3.5, Appendix A is met. Compliance with Appendix B and the remainder of the [technical] positions of Regulatory Guide 1.155 is site specific, as addressed in each plant UFSAR or License commitments.
- Generic Letter 89-02/EPRI-NP-5652 (March 1988, and supplements through March 1993) – NextEra Energy commits to compliance with the endorsed industry guidance regarding selection and qualification of commercial grade suppliers and dedication of commercial grade items for use in safety related applications.
- Generic Letter 91-05 (April 1991) – NextEra Energy commits to compliance with the guidance regarding licensee commercial-grade procurement and dedication programs.

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**A.7 Regulatory Commitments (Continued)**

- Branch Technical Position CMEB 9.5-1, Revision 2, July 1981 (Positions C.2 and C.4) – Provisions for administrative controls for Fire Protection comply with site specific commitments, or with the provisions of Position C.2 of CMEB 9.5.1, Rev. 2, as specified in NRC approved site fire protection programs and the applicable NRC Safety Evaluation Reports. Application of the provisions of this QATR to fire protection activities provides elements of quality assurance that comply with site specific fire protection quality assurance commitments or with CMEB 9.5.1, Revision 2, Position C.4.
- For plants with an NFPA 805 fire protection licensing bases, NextEra Energy commits to implement Regulatory Guide 1.205, December 2009, “Risk-Informed, Performance-Based Fire Protection for Existing Light-Water Nuclear Power Plants,” which endorses in part, NEI 04-02, Revision 2, Nuclear Energy Institute Guidance for Implementing a Risk-Informed, Performance-Based Fire Protection Program under 10 CFR 50.48(c). The implementation of these documents is described in the station specific Technical Specifications and License Conditions and station specific NRC approved Safety Evaluation Reports.
- Regulatory Guide 4.15, Revision 1, February 1979, “Quality Assurance for Radiological Monitoring Programs (Normal Operations) – Effluent Streams and the Environment” – The intent of Regulatory Guide 4.15 is met.
- Regulatory Guide 7.10, Revision 2, March 2005, “Establishing Quality Assurance Programs for Packaging Used in the Transport of Radioactive Material” – NextEra Energy commits to implement the quality assurance guidance for activities related to the packaging and transport of radioactive material that are under its control. Quality Assurance for the design, fabrication and licensing of shipping containers is the responsibility of the container certificate holders.
- Generic Letter 85-06, April 1985, “Quality Assurance Guidance for ATWS Equipment That Is Not Safety-Related” – NextEra Energy commits to the quality assurance guidance cited in the Generic Letter.
- Regulatory Issue Summary 2000-18, October 2000, “Guidance on Managing Quality Assurance Records in Electronic Media” – In instances when electronic media storage is chosen as a means of maintaining required records, NextEra Energy will comply with the guidance of this Regulatory Issue Summary.
- Confirmatory Order Number EA-08-172, Section V.c, states, “FPL will create a fleet security organization to provide management oversight related corrective actions and enhancements to improve the thoroughness of searches at the St. Lucie Plant and other fleetwide facilities.
- NextEra nuclear plants with a renewed Facility Operating License are committed to satisfy the intent of NUREG-1800, Branch Technical Position IQMB-I, “Quality Assurance for Aging Management Programs,” and/or NUREG-1801 elements. The 10 CFR Part 50, Appendix B quality assurance program provides for corrective actions, the confirmation process, and administrative controls for Aging Management Programs (AMP) for license renewal. The scope of this existing QA program is expanded to include non-safety-related structures and components that are subject to an Aging Management Review (AMR) for license renewal.

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**B. PERFORMANCE/VERIFICATION**

**B.1 Methodology**

Personnel who work directly or indirectly for NextEra Energy are responsible for the achievement of acceptable quality in the work covered by this QATR. This includes design, engineering, procurement, manufacturing, construction, installation, start-up, maintenance, modifications, and operations. Personnel performing verification activities are responsible for verifying the achievement of acceptable quality. Activities governed by the QAP are performed as directed by documented instructions, procedures and drawings that are of a detail appropriate for the activity's complexity and effect on safety. Instructions, procedures and drawings specify quantitative or qualitative acceptance criteria as applicable or appropriate for the activity, and verification is against these criteria. Provisions are established to designate or identify the proper documents to be used in an activity, and to ascertain that such documents are being used.

**B.2 Design Control**

A program has been established and implemented to control the design of items that are subject to the provisions of this QATR (see Section A.1). The program includes provisions to control design inputs, processes, outputs, changes, interfaces, records and organizational interfaces. These provisions assure that design inputs (such as design bases and the performance, regulatory, quality, and quality verification requirements) are correctly translated into design outputs (such as specifications, drawings, procedures, and instructions) such that the final design output can be related to the design input in sufficient detail to permit verification. The program defines the interface controls (internal and external between participating design organizations and across technical disciplines) necessary to control the development, review, approval, release, distribution and revision of design inputs and outputs.

Design processes provide for design verification (as described in Section B.3) that items and activities subject to the provisions of this QATR are suitable for their intended application, consistent with their effect on safety. Changes to final designs (including field changes) are subjected to these controls, which include measures commensurate with those applied to original plant design. Design changes and disposition of nonconforming items as "use as is" or "repair" are reviewed and approved by the responsible design organization.

Records are maintained sufficient to provide evidence that the design was properly accomplished. These records include the final design output and any revisions thereto, as well as record of the important design steps (e.g., calculations, analyses and computer programs) and the sources of input that support the final output.

In addition, temporary design changes (temporary modifications), such as temporary bypass lines, electrical jumpers and lifted leads, and temporary trip-point settings, are controlled by procedures that include requirements for appropriate installation and removal verifications and status tracking.

In establishing its program for design control, NextEra Energy commits to compliance with NQA-1, 1994, Basic Requirement 3, and Supplement 3S-1, Sections 1, 2, 3, 5, 6, and 7.

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**B. PERFORMANCE/VERIFICATION (CONTINUED)**

**B.3 Design Verification**

The design control program includes requirements for verifying the acceptability of design activities and documents, consistent with their effect on safety. This includes design inputs, design outputs and design changes. Design verification procedures are established and implemented to assure that an appropriate verification method is used, the appropriate design parameters to be verified are chosen, the acceptance criteria are identified, and the verification is satisfactorily accomplished and documented. Verification methods may include, but are not limited to, design reviews, alternative calculations and qualification testing. Testing used to verify the acceptability of a specific design feature demonstrates acceptable performance under conditions that simulate the most adverse design conditions expected for an item's intended use.

Design verification activities are completed before the design outputs are used by other organizations for design work, and before they are used to support other activities such as procurement, manufacture or construction. When such timing cannot be achieved, the unverified portion of the design is identified and controlled such that, in all cases, the design verification is completed before relying on the item to perform its intended safety function.

Design verification can be performed by the designer's immediate supervisor, provided (1) the supervisor did not specify a singular design approach or rule out certain design considerations and did not establish the design inputs used in the design, or (2) the supervisor is the only technically qualified individual capable of performing the verification, and (3) the need is individually documented and approved in advance by the supervisor's management. The frequency and effectiveness of the use of supervisors as design verifiers are independently verified to guard against abuse.

In establishing its program for design verification, NextEra Energy commits to compliance with NQA-1, 1994, Basic Requirement 3, and Supplement 3S-1, Section 4.

**B.4 Procurement Control**

Controls are established and implemented to assure that purchased items (components, spares and replacement parts necessary for plant operation, refueling, maintenance and modifications) and services are subject to quality and technical requirements at least equivalent to those specified for original equipment or specified by properly reviewed and approved revisions to assure the items are suitable for the intended service, and are of acceptable quality, consistent with their effect on safety. These controls include provisions such that:

- Where original technical or quality assurance requirements cannot be determined, an engineering evaluation is conducted and documented by qualified staff to establish appropriate requirements and controls to assure that interfaces, interchangeability, safety, form, fit and function, as applicable, are not adversely affected or contrary to applicable regulatory requirements.

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**B. PERFORMANCE/VERIFICATION (CONTINUED)**

**B.4 Procurement Control (Continued)**

- Items are inspected (see Section B.12) and identified and stored (see Sections B.6 and B.7) to protect against damage, deterioration or misuse.
- Prospective suppliers of safety related items and services are evaluated to assure that only qualified suppliers are used. Qualified suppliers are periodically evaluated to assure they continue to provide acceptable products and services. Industry programs, such as those applied by ASME, NUPIC, or other established utility groups, are used as input or the basis for supplier qualification whenever appropriate. In addition, NextEra Energy commits to Position C.3.2 of Regulatory Guide 1.28, Revision 3, for auditing and evaluation of suppliers, with the exception that for position C.3.2.2, the information described therein is reviewed as it becomes available through its ongoing receipt inspection, operating experience, and supplier evaluation programs, in lieu of performing a specific evaluation on an annual basis. The results of the reviews are promptly considered for effect on a supplier's continued qualification and adjustments made as necessary (including corrective actions, adjustments of supplier audit plans, and input to third party auditing entities, as warranted). In addition, results are reviewed periodically to determine if, as a whole, they constitute a significant condition adverse to quality requiring additional action. Other 10CFR50 licensees, Authorized Nuclear Inspection Agencies, National Institute of Standards and Technology, or other state and federal agencies which provide items or services to NextEra Energy plants are not required to be evaluated or audited. A 90-day grace period may be applied to the requirement to audit suppliers on a triennial basis. When the grace period is applied, the next due date for the activity is based upon the original scheduled date. However, in all cases the periodicity shall not exceed three years plus 90 days.
- Applicable technical, regulatory, administrative, quality and reporting requirements (such as specifications, codes, standards, tests, inspections, special processes, and 10CFR21) are invoked for procurement of items and services. Documentary evidence that an item conforms to these requirements is available at the site before relying on the item to perform its intended safety function. These documents are considered records according to Section B.15.
- Provisions are made for accepting purchased items and services, such as source verification, receipt inspection, pre- and post-installation tests, certificates of conformance, and document reviews. Acceptance actions are completed to ensure that procurement, inspection, and test requirements, as applicable, have been satisfied before relying on the item to perform its intended safety function.
- Controls are imposed for the selection, determination of suitability for intended use (critical characteristics), evaluation, receipt and acceptance of commercial grade or "off-the-shelf" items to assure they will perform satisfactorily in service in safety related applications.

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**B. PERFORMANCE/VERIFICATION (CONTINUED)**

**B.4 Procurement Control (Continued)**

In establishing controls for procurement, NextEra Energy commits to compliance with NQA-1, 1994, Basic Requirements 4 and 7, and Supplements 4S-1 and 7S-1, with the following exceptions:

- For Supplement 4S-1, Section 2.2 (which requires procurement documents to provide for identification of test, inspection, and acceptance requirements of the Purchaser for monitoring and evaluating the suppliers performance), and Supplement 7S-1, Section 5, for suppliers of commercial-grade calibration services with accreditation by a nationally-recognized accrediting body, a documented review of the supplier's accreditation may be used in lieu of inspection or tests following delivery or in-process surveillances during performance of the service. This review shall include, at a minimum, all of the following:
  1. The accreditation is to ANSI/ISO/IEC 17025.
  2. The accrediting body is either NVLAP or an accrediting body recognized by NVLAP through a mutual recognition agreement.
  3. The published scope of the accreditation for the calibration laboratory covers the needed measurement parameters, ranges, and uncertainties.
- For Supplement 4S-1, Section 2.3 (which requires procurement documents to require a quality program that complies with NQA-1), when purchasing commercial-grade calibration services from calibration laboratories accredited by a nationally-recognized accrediting body, the procurement documents are not required to impose a quality assurance program. Nationally-recognized accrediting bodies include the National Voluntary Laboratory Accreditation Program (NVLAP) administered by the National Institute of Standards and Technology (NIST) and other accrediting bodies recognized by NVLAP via a mutual recognition agreement. In such cases, accreditation may be accepted in lieu of imposing a QA Program consistent with NQA-1-1994, provided all the following are met:
  - (a) The accreditation is to ANSI/ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories."
  - (b) The accrediting body is National Voluntary Laboratory Accreditation Program (NVLAP) or the American Association for Laboratory Accreditation (A2LA), which is recognized by NVLAP through the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement.
  - (c) The published scope of accreditation for the calibration laboratory covers the needed measurement parameters, ranges, and uncertainties.

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**B. PERFORMANCE/VERIFICATION (CONTINUED)**

**B.4 Procurement Control (Continued)**

- (d) The purchase documents impose additional technical and administrative requirements, as necessary, to satisfy the QA Program and technical requirements and shall explicitly impose the NUPIC requirement that the calibration certificate/report include identification of the laboratory equipment/standards used.
- (e) The purchase documents require reporting as-found calibration data when calibrated items are found to be out-of-tolerance.
- For Supplement 4S-1, Section 2.3, which requires procurement documents to require a quality program that complies with NQA-1, other nationally recognized and NRC endorsed quality standards, such as N45.2, may be applied as appropriate to the circumstances of the procurement.
- For Supplement 7S-1, Section 8.1, documentary evidence that items conform to procurement requirements need not be available at the site prior to item installation, but will be available at the site prior to placing reliance on the item for its intended safety function.
- For Supplement 4S-1 and Supplement 7S-1, the guidance contained in Generic Letter 89-02/EPRI NP-5652 and Generic Letter 91-05 to procure Commercial Grade Items will be used in lieu of these requirements.
- For commercial grade calibration services from a supplier that has been accredited by a nationally recognized accrediting body (NVLAP or other accrediting body recognized by NVLAP via a Mutual Recognition Agreement {MRA}), the service may be accepted subject to the restrictions noted in Section B.4 above instead of Supplement 4S-1 and Supplement 7S-1.

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**B. PERFORMANCE/VERIFICATION (CONTINUED)**

**B.5 Procurement Verification**

Measures are established and implemented to verify the quality of purchased items and services, whether purchased directly or through contractors, at intervals and to a depth consistent with the item's or service's importance to safety, complexity, quantity and the frequency of procurement. Verification actions include testing, as appropriate, during design, fabrication and construction activities associated with plant maintenance or modifications. Verifications occur at the appropriate phases of the procurement process, including, as necessary, verification of activities of suppliers below the first tier.

In establishing procurement verification controls, NextEra Energy commits to compliance with NQA-1, 1994, Basic Requirement 7 and Supplement 7S-1.

**B.6 Identification and Control of Items**

Provisions are established and implemented for the identification and control of items to prevent the use of incorrect or defective items. This includes controls for consumable materials and items with limited shelf life. The identification of items is maintained throughout fabrication, erection, installation and use so that the item can be traced to its documentation, consistent with the item's effect on safety. Identification locations and methods are selected so as not to affect the function or quality of the item.

In establishing provisions for identification and control of items, NextEra Energy commits to compliance with NQA-1, 1994, Basic Requirement 8 and Supplement 8S-1.



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**B. PERFORMANCE/VERIFICATION (CONTINUED)**

**B.7 Handling, Storage and Shipping**

Provisions are established and implemented to control the handling, storage, shipping, cleaning and preservation of items to prevent inadvertent damage, loss or deterioration. These provisions include specific procedures, when required to maintain acceptable quality, for cleaning, handling, storage, packaging, shipping and preserving items important to safety. Items are appropriately marked and labeled during packaging, shipping, handling and storage to identify, maintain and preserve the item's integrity and indicate the need for special controls. Special controls (such as containers, shock absorbers, accelerometers, inert gas atmospheres, specific moisture content levels and temperature levels) are provided when required to maintain acceptable quality.

In establishing provisions for handling, storage and shipping, NextEra Energy commits to compliance with NQA-1, 1994, Basic Requirement 13 and Supplement 13S-1. NextEra Energy also commits to compliance with the requirements of NQA-1, 1994, Subpart 2.2, with the following exceptions:

- Subpart 2.2, Section 2.2 establishes criteria for classifying items into protection levels. Instead of classifying items into protection levels, plants may establish controls for the packaging, shipping, handling and storage of such items on a case-by-case basis with due regard for the item's complexity, use, and sensitivity to damage. Prior to installation or use, the items are inspected and serviced as necessary to assure that no damage or deterioration exists which could affect their function.
- Subpart 2.2, Section 5.2.2 requires receiving inspections be performed in an area equivalent in environmental controls to those for the level of storage of the item. At NextEra Energy plants, receiving inspection area environmental controls may be less stringent than the storage environmental requirements for the item. Such inspections are performed in a manner and in an environment which does not endanger the required quality of the item.
- Subpart 2.2, Section 6.2.4 states that the use or storage of food, drinks, and salt tablet dispensers in controlled storage areas shall not be permitted. Exception is taken to the wording of Section 6.2.4 and an alternate requirement substituted that the use or storage of food, drinks, and salt tablet dispensers in any storage area shall be controlled and be limited to designated areas where such use or storage is not deleterious to the stored items.
- Subpart 2.2, Section 6.4.2 states that care of items in storage shall be exercised in accordance with the following: (h) Other maintenance requirements specified by the manufacturer's instructions shall be performed. Exception is taken to the wording of Section 6.4.2 (h) and an alternate requirement substituted that "Care of items in storage shall be exercised in accordance with the following: Types of components that could require maintenance while in storage shall be identified and evaluated for specific maintenance requirements. Maintenance activities in Section 6.4.2 (h), listed in this requirement shall be considered during this evaluation and any deviations shall be documented."

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**B. PERFORMANCE/VERIFICATION (CONTINUED)**

**B.7 Handling, Storage and Shipping (Continued)**

- Subpart 2.2, Section 7.1 refers to Subpart 2.15 for requirements related to handling of items. The scope of Subpart 2.15 includes hoisting, rigging and transporting of items for nuclear power plants. This scope exceeds the scope of the NRC's original endorsement of ANSI N45.2.2 in Regulatory Guide 1.38, and establishes requirements for which there is no NRC regulatory position. In lieu of compliance with Subpart 2.15, Controls are established and implemented over hoisting, rigging and transport activities to the extent necessary to protect the integrity of the items involved, as well as potentially affected nearby structures and components. For re-rating of lifting equipment to allow "special lifts," NextEra Energy performs dynamic load testing over the full range of the lift using test loads at least 110% of the lift weight. Dynamic tests include raising, lowering, and traversing the load. Where required, NextEra Energy complies with applicable hoisting, rigging and transportation regulations and codes.

Housekeeping practices during normal operations and maintenance activities, including refueling, are established to account for conditions or environments that could affect the quality of structures, systems and components within the plant. This includes control of cleanness of facilities and materials, fire prevention and protection, disposal of combustible material and debris, control of access to work areas, protection of equipment, radioactive contamination control and storage of solid radioactive waste. Housekeeping practices assure that only proper materials, equipment, processes and procedures are used and that the quality of items is not degraded as a result. Necessary procedures or work instructions, such as for electrical bus and control center cleaning, cleaning of control consoles, and radioactive decontamination are developed and used.

In addition, NextEra Energy commits to compliance with the requirements of NQA-1, 1994, Subpart 2.1, to establish appropriate provisions for the cleaning of fluid systems and associated components; and Subpart 2.3, to establish appropriate provisions for housekeeping; with the following exceptions:

- Subpart 2.1, Sections 3.1 and 3.2 establish criteria for classifying items into cleanness classes and requirements for each class. Instead of using the cleanness level system of Subpart 2.1, plants may establish cleanness requirements on a case-by-case basis, consistent with the other provisions of Subpart 2.1. Appropriate cleanliness controls are established for work on safety related equipment to minimize introduction of foreign material and maintain systems/component cleanliness throughout maintenance or modification activities, including documented verification of absence of foreign materials prior to system closure.

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**B. PERFORMANCE/VERIFICATION (CONTINUED)**

**B.7 Handling, Storage and Shipping (Continued)**

- Instead of the five-level zone designation in Subpart 2.3, control over housekeeping activities is based on a consideration of what is necessary and appropriate for the activity involved. The controls are effected through procedures or instructions that, in the case of maintenance or modification work, are developed on a case-by-case basis. Factors considered in developing the procedures and instructions include cleanliness control, personnel safety, fire prevention and protection, radiation control and security. The procedures and instructions make use of standard janitorial and work practices to the extent possible.

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**B. PERFORMANCE/VERIFICATION (CONTINUED)**

**B.8 Test Control**

Testing programs are established and implemented to demonstrate that items subject to the provisions of this QATR will perform satisfactorily in service, that the plant can be operated safely and as designed, and that the coordinated operation of the plant as a whole is satisfactory. These programs include criteria for determining when testing is required, such as proof tests before installation, pre-operational tests, post-maintenance tests, post-modification tests, inservice tests, and operational tests (such as surveillance tests required by Plant Technical Specifications), to demonstrate that performance of plant systems is in accordance with design intent. Programs also include provisions for establishing and adjusting test schedules and maintaining status for periodic or recurring tests. Tests are performed according to applicable procedures that include, consistent with the effect on safety, (1) instructions and prerequisites to perform the test, (2) use of proper test equipment, (3) acceptance criteria, and (4) mandatory verification points as necessary to confirm satisfactory test completion. Test results are documented and evaluated by the organization performing the test and reviewed by the appropriate authority having responsibility for the item being tested. If acceptance criteria are not met, retesting is performed as needed to confirm acceptability following correction of the system or equipment deficiencies that caused the failure.

In establishing provisions for testing, NextEra Energy commits to compliance with NQA-1, 1994, Basic Requirement 11 and Supplement 11S-1.

**B.9 Measuring and Test Equipment Control**

Provisions are established and implemented to control the calibration, maintenance, and use of measuring and test equipment, including installed plant instrumentation, that provide information important to safe plant operation. The provisions cover equipment such as indicating and actuating instruments and gages, tools, reference and transfer standards, and nondestructive examination equipment. The provisions assure that:

- Measuring and test equipment is calibrated at specified intervals on the basis of the item's required accuracy, intended use, frequency of use, and stability characteristics or other conditions affecting its performance. Alternatively, equipment may be calibrated immediately before and after use if a defined interval is not appropriate.
- Measuring and test equipment is labeled, tagged or otherwise controlled to indicate its calibration status and provide traceability to calibration test data or records.
- Calibrations are performed against standards that have an accuracy of at least four times the required accuracy of the equipment being calibrated. When this is not possible, the standards have an accuracy that ensures the equipment being calibrated will be within the required tolerance.

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**B. PERFORMANCE/VERIFICATION (CONTINUED)**

**B.9 Measuring and Test Equipment Control (Continued)**

- Where possible, calibration standards are traceable to appropriate national standards. Calibration standards have greater accuracy than the standards being calibrated, except where the same accuracy as the instruments being calibrated can be shown to be adequate for the service requirements.
- Measuring and test equipment found out of calibration is tagged or segregated and not used until it is successfully re-calibrated. An evaluation is performed to determine the acceptability of any items measured, inspected or tested with an out-of-calibration device from the time of the previous calibration.

In establishing provisions for control of measuring and test equipment, NextEra Energy commits to compliance with NQA-1, 1994, Basic Requirement 12, Supplement 12S-1 and Subpart 2.16 for establishing appropriate requirements for calibration and control of measuring and test equipment, including installed plant instrumentation, with the following exception:

- Section 5.5 of IEEE 498-85 (NQA-1, Subpart 2.16) requires all M&TE to be labeled. As stated above, plants may not label certain M&TE, such as installed instrumentation, but provide other means of identification so appropriate controls can be implemented. This exception also applies to Section 7.2.1 of IEEE 336-85 (NQA-1, Subpart 2.4).

**B.10 Inspection, Test and Operating Status**

Measures are established and implemented to identify the inspection, test and operating status of items and components subject to the provisions of this QATR in order to maintain personnel and reactor safety and avoid unauthorized operation of equipment. Where necessary to preclude inadvertent bypassing of inspections or tests, or to preclude inadvertent operation, these measures require the inspection, test or operating status be verified before release, fabrication, receipt, installation, test or use. These measures also establish the necessary authorities and controls for the application and removal of status indicators or labels. Equipment control provisions for workmen's protection comply with applicable federal and state OSHA regulations.

In establishing measures for control of inspection, test and operating status, NextEra Energy commits to compliance with NQA-1, 1994, Basic Requirement 14.

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**B. PERFORMANCE/VERIFICATION (CONTINUED)**

**B.11 Special Process Control**

Provisions are established and implemented to assure that special processes that require interim process controls to assure quality, such as welding, heat treating, chemical cleaning, and nondestructive examination, are controlled. These provisions include assuring that special processes are accomplished by qualified personnel using qualified procedures and equipment. Special processes are performed in accordance with applicable codes, standards, specifications, criteria or other specially established requirements. Special processes are those where the results are highly dependent on the control of the process or the skill of the operator, or both, and for which the specified quality cannot be fully and readily determined by inspection or test of the final product.

In establishing measures for the control of special processes, NextEra Energy commits to compliance with NQA-1, 1994, Basic Requirement 9 and Supplement 9S-1, as well as the applicable ASME Boiler and Pressure Vessel Code provisions established via 10CFR50.55a.

**B.12 Inspection**

Provisions are established and implemented for inspections to assure that items, services and activities affecting safety meet established requirements and conform to applicable documented instructions, procedures and drawings. Inspection may also be applied to items, services and activities affecting plant reliability. Types of inspections may include those verifications related to procurement, as discussed in Sections B.4 and B.5, such as source, in-process, final, and receipt inspection, as well as maintenance, modification, in-service, and operational activities. Inspections are carried out by properly qualified persons independent of those who performed or directly supervised the work.

Inspection planning (for those activities subject to inspection) identifies the characteristics and activities to be inspected, the inspection techniques, the acceptance criteria and the organization responsible for performing the inspection. Inspection planning identifies required hold points, beyond which work is not to proceed without the consent of the inspection organization. Provisions for ASME Boiler and Pressure Vessel Code Authorized Inspections are included when required.

Inspection results are documented by the inspector and approved by authorized personnel. If acceptance criteria are not met, corrected areas are reinspected.

In establishing inspection requirements, NextEra Energy commits to compliance with NQA-1, 1994, Basic Requirement 10, Supplement 10S-1 and Subpart 2.4. In addition, for situations comparable to original construction, NextEra Energy commits to compliance with the requirements of Subparts 2.5 and 2.8 for establishing appropriate inspection requirements.

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**B. PERFORMANCE/VERIFICATION (CONTINUED)**  
**B.13 Corrective Action**

Provisions are established and implemented to assure that personnel have both the responsibility and authority to identify conditions adverse to quality, and the opportunity to suggest, recommend or provide solutions to resolve the condition. Provisions also include verification of resolution of significant issues (see also Section A.6).

Reworked, repaired and replacement items are inspected and tested to meet the original inspection or test requirements, or appropriately specified alternatives (see also Sections B.8 and B.12).

If evidence indicates that common components in safety related systems have performed unsatisfactorily, compensatory or corrective measures are planned prior to replacement or repair of such components. Replacement components receive adequate testing or are of a design for which experience indicates a high probability of satisfactory performance. Consideration is given to phased replacement to permit inservice performance to be evaluated and minimize the possibility of systemic failure.

In establishing provisions for corrective action and control of nonconforming items, NextEra Energy commits to compliance with NQA-1, 1994, Basic Requirements 15 and 16, and Supplement 15S-1.

**B.14 Document Control**

Provisions are established and implemented to specify the format and content (see Appendix B for procedures), and control the development, review, approval, issue, use and revision, of documents that specify quality requirements or prescribe activities affecting quality or safe operation to assure the correct documents are being employed. These provisions assure that specified documents are reviewed for adequacy, approved prior to use by authorized persons, and distributed according to current distribution lists and used at the location where the prescribed activity takes place. Procedures governing power plant activities (see Appendix B) are reviewed by qualified persons, other than the preparer, as designated by the Plant General Manager. Such procedure reviews include a determination whether additional cross-discipline reviews are required and whether a Plant Technical Specification change or other NRC approval is required. Only safety related procedures and procedures important to safety as used in 10CFR71 and 72 require this review. Provisions include establishing levels of use, such as requiring the document to be present at the work location. Documents subject to control provisions include, but are not limited to, drawings (design, as-built), engineering documents (calculations, analyses, specifications, computer codes, Updated Final Safety Analysis Reports, Plant Technical Specifications), and procedures (administrative, operating, emergency operating, maintenance, calibration, surveillance, inspection, test). Other documents, such as those related to procurement, corrective actions, and assessments, are controlled as defined by the provisions and commitments cited in those sections of this QATR. Controlled copies of instructions and procedures are made available to and used by the persons performing the activity covered. New or revised controlled documents are made available in a timely fashion to support ongoing work and preclude use of incorrect information. Superseded documents are identified or removed from availability. Each site maintains documentation that describes how implementing documents are maintained to assure that QAP requirements are met and are not inadvertently removed in later revisions.

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**B. PERFORMANCE/VERIFICATION (CONTINUED)**

**B.14 Document Control (Continued)**

Revisions to controlled documents are reviewed for adequacy and approved for release by the same organization(s) as originally did so, or by other designated organizations that are qualified and sufficiently knowledgeable of the requirements and intent of the original document. Programmatic procedure preparation, review and usage controls are established that ensure procedures are technically and administratively correct. These controls ensure that procedures are reviewed when pertinent source material is revised (such as when Technical Specifications are revised), when unusual incidents occur, when plant modifications are made, and when significant deficiencies are identified. Procedures may also be reviewed because industry experience reviews, use during job execution or training, self-assessments or independent assessments identify deficiencies or opportunities for improvement. Revisions are made as necessary. Emergency operating procedures, off-normal procedures, and procedures which implement the emergency plan are exercised on the simulator or reviewed at least once every two years and revised as appropriate.

The Plant General Manager may designate specific procedures or classes of procedures in writing to be reviewed by qualified reviewers in lieu of review by the ORG. Review by qualified reviewers shall be in accordance with implementing procedures. In addition, 10 CFR 50.59 and/or 10 CFR 72.48 reviews are performed on designated procedures, including subsequent changes, to determine if NRC review and approval is required prior to implementing the procedures/changes.

Procedures required by Technical Specifications shall be approved by the Plant General Manager or by cognizant managers or other supervisory personnel prior to implementation as specified by administrative requirements. The approval authority for specific procedures or classes of procedures shall be designated in writing by the Plant General Manager.

Temporary changes to approved procedures that do not change the intent are approved by two members of plant staff knowledgeable in the areas affected by the procedure. Additionally for temporary changes to approved procedures identified in Appendix B of this QATR, at least one of the two approvers must hold a senior reactor operator's license. Temporary changes are documented, reviewed by the ORG or by a qualified reviewer, and approved by the designated approval authority within 14 days of implementation. If appropriate, temporary changes are incorporated in the next revision of the procedure.

In establishing provisions for document control, NextEra Energy commits to compliance with NQA-1, 1994, Basic Requirement 6 and Supplement 6S-1.



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**B. PERFORMANCE/VERIFICATION (CONTINUED)**

**B.15 Records**

Provisions are established and implemented to ensure that sufficient records of items and activities affecting quality are generated and maintained to reflect completed work. Such records may include, but are not limited to, design, engineering, procurement, manufacturing, construction, inspection, test, installation, modification, operations, maintenance, corrective action, assessment, and associated reviews. The provisions establish requirements for records administration, including generation, receipt, preservation, storage, safekeeping, retrieval and final disposition. For activities governed by 10CFR71 or 72, these provisions address the specific requirements of sections 71.135 and 72.174.

The list of records in 10CFR71.135, 10CFR72.174, and Non-mandatory Appendix 17A-1, supplemented by the recommended retention times established in Regulatory Guide 1.28, Position C.2 (Table 1), are used to establish the types of records that will be created and retained in support of plant operation. Non-mandatory Appendix 17A-1 of NQA-1-1994 lists only those operations phase records having permanent (lifetime) retention; Regulatory Guide 1.28, Table 1, which provides for lifetime, 3, and 10 year (non-permanent) retention periods, does not specifically list operations phase record types. Appropriate retention times are established for non-permanent operations phase records based on similarity to the same record types identified in Table 1 of Regulatory Guide 1.28. Thus, non-permanent records are designated for 3 or 10 year retention, as required by NQA-1-1994, Supplement 17S-1, Sections 2.7 and 2.8. In cases where local or state retention requirements are more restrictive than the regulatory guidance, the local requirements are met. Records of the service lives of all snubbers including the date at which the service life commences and associated installation and maintenance records have lifetime retention.

In addition, when using optical or electronic records storage and retrieval systems, NextEra Energy complies with NRC guidance in RIS 2000-18.

In establishing provisions for records, NextEra Energy commits to compliance with NQA-1, 1994, Basic Requirement 17 and Supplement 17S-1, with the following exception:

- Supplement 17S-1, Section 4.2(b) requires records to be firmly attached in binders or placed in folders or envelopes for storage in steel file cabinets or on shelving in containers. For hard-copy records maintained by plants, the records are suitably stored in steel file cabinets or on shelving in containers, except that methods other than binders, folders or envelopes may be used to organize the records for storage.

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**B. PERFORMANCE/VERIFICATION (CONTINUED)**

**B.16 Plant Maintenance**

Controls are established for the maintenance or modification of items and equipment subject to this QATR to ensure quality at least equivalent to that specified in original design bases and requirements, such that safety related structures, systems and components are maintained in a manner that assures their ability to perform their intended safety function(s). Maintenance activities (both corrective and preventive) are scheduled and planned so as not to unnecessarily compromise the safety of the plant. Permission to release equipment or systems for maintenance is granted by designated operating personnel who are responsible to verify that the equipment or system can be released and determine how long it may be out of service. This includes attention to the potentially degraded degree of protection when one subsystem of a redundant safety system has been removed for maintenance. Release is documented. When equipment is ready to be returned to service, operating personnel place the equipment in operation and verify and document its functional acceptability. In completing maintenance and restoring equipment, attention is given to restoration of normal conditions, such as removal of jumpers or signals used in maintenance or testing, or such as returning valves, breakers or switches to proper operating positions.

In establishing controls for plant maintenance, NextEra Energy commits to compliance with NQA-1, 1994, Subparts 2.16 and 2.18, with the following exceptions:

- Section 5.5 of IEEE 498-85 (NQA-1, Subpart 2.16) requires all M&TE to be labeled. As stated in QATR Section B.9, plants may not label certain installed instrumentation, but provide other means of identification so appropriate controls can be implemented. This exception also applies to Section 7.2.1 of IEEE 336-85 (NQA-1, Subpart 2.4).
- Subpart 2.18, Section 2.3.a requires cleanliness during maintenance to be in accordance with Subpart 2.1. Commitment to Subpart 2.1 is described in Section B.7.
- Subpart 2.18, Section 2.7 requires the application of Subparts 2.4, 2.5 and 2.8 for inspections of installation activities. Commitment to Subparts 2.5 and 2.8 is limited to activities comparable in nature and extent to those during original construction (see Section B.12). Inspections (verifications) of maintenance or modification activities are established, conducted and documented as required by Section B.12 to establish a suitable level of confidence in affected structures, systems, or components. The inspection criteria in Subparts 2.5 and 2.8 may be used in establishing required inspections for maintenance and minor modifications.

**B.17 Computer Software Control**

Provisions are established and implemented to assure that computer software used in applications affecting safety is prepared, documented, verified and tested, and used such that the expected output is obtained and configuration control maintained. To this end, NextEra Energy commits to compliance with the requirements of NQA-1 1994, Supplement 11S-2 and Subpart 2.7 to establish the appropriate provisions.

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**C. ASSESSMENT**

**C.1 Methodology**

Programs are established for reviews and assessments to verify that activities covered by this QATR are performed in compliance with the requirements established, review significant proposed plant changes or tests, verify that reportable events are promptly investigated and corrected, and detect trends which may not be apparent to the day-to-day observer. These programs are, themselves, reviewed for effectiveness as part of the overall assessment process, as described herein.

Self-assessment is used (performed by or for the group responsible for the activity being assessed) and independent assessment (performed by the Nuclear Oversight organization) to monitor overall performance, identify anomalous performance and precursors of potential problems, and verify satisfactory resolution of problems. Persons responsible for carrying out these assessments are cognizant of day-to-day activities such that they can act in a management advisory function with respect to the scope of the assessment. Both self-assessments and independent assessments are accomplished using instructions or procedures that provide detail commensurate with the assessed activity's complexity and importance to safety.

The plants maintain on-site review groups to review overall plant performance and advise site management on matters related to nuclear safety. Appendix A establishes the requirements for these committees.

Independent reviews are periodically performed of matters involving the safe operation of the fleet of nuclear power plants, with a minimum of one such review being conducted for each generating site each year. The review addresses matters that plant and corporate management determine warrant special attention, such as plant programs, performance trends, employee concerns, or matters related to safe plant operations. The review is performed by a team consisting of personnel with experience and competence in the activities being reviewed, but independent (from cost and schedule considerations) from the organizations responsible for those activities. The review is supplemented by outside consultants or organizations as necessary to ensure the team has the requisite expertise and competence. Results are documented and reported to responsible management.

In establishing the independent assessment program, NextEra Energy commits to compliance with NQA-1, 1994, Basic Requirement 18 and Supplement 18S-1, with the following clarification:

- The term "audit" and "independent assessment" are synonymous and may be used interchangeably.

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**C. ASSESSMENT (CONTINUED)**

**C.2 Self-Assessment**

Self-assessments performed by or for the group responsible for the activity being assessed are used to identify anomalous performance and precursors of potential problems. When line organizations perform self-assessments, their focus is technically and performance oriented with focus on the quality of the end product as well as on compliance with procedures and processes. The objective of self-assessment is to verify compliance, improve performance and achieve excellence. Results of self-assessments are reported in an understandable form and in a timely fashion to a level of management having the authority to effect corrective action and verify satisfactory resolution of problems.

**C.3 Independent Assessment**

A program of planned and periodic performance-based independent assessments has been established to monitor overall performance and confirm that activities affecting quality comply with the QAP and that the QAP is effectively implemented. The organization performing independent assessment (Nuclear Oversight) is technically and performance oriented, with its focus on the quality of the end product and the effective implementation of procedures and processes. Persons performing independent assessments do not have direct responsibility for any area being assessed, and do not report to a management position with immediate responsibility for the activity being assessed. Assessment resources may be supplemented with technical specialists as needed. The independent assessment program will be reviewed at least semiannually through one of the following: an Independent Evaluation of QA/QC, review by a designated management representative, or review by a designated management review body.

The independent assessment program provides comprehensive independent evaluations of activities and procedures. Planning for independent assessments identifies the characteristics and activities to be assessed and the relevant performance and/or acceptance criteria. As appropriate to the scope of an assessment, these criteria include related plant Technical Specification requirements. Independent assessments are then conducted using these predetermined criteria.

All independent assessments include an examination of selected procedures to verify that the procedure review and revision controls of Section B.14 are effectively implemented.

Results of independent assessments are reported in an understandable form and in a timely fashion to a level of management having the authority to effect corrective action. Nuclear Oversight conducts timely follow-up action, including re-assessment of deficient areas, as necessary, to establish adequacy of corrective actions.

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**C. ASSESSMENT (CONTINUED)**

**C.3 Independent Assessment (Continued)**

Independent assessment results are documented and reviewed by Nuclear Oversight management and by management having responsibility for the area assessed. In addition, Nuclear Oversight activities are periodically assessed for effectiveness. Results are documented and reported to responsible management.

Nuclear Oversight provides for assessment of work carried out under the requirements of the QAP that is delegated to other (non-NextEra Energy) entities.

Independent Assessments are performed on a fixed frequency.

Independent Assessments of the topics in Table 1 are audited at least biennially. A 90-day grace period may be applied to these non-regulatory topics in executing this periodicity. When the grace period is applied, the next due date for the activity is based upon the original scheduled date. However, in all cases the periodicity shall not exceed two years plus 90 days. Certain activities, as identified in Table 2 (Regulatory Topics), receive independent assessments at frequencies established by related NRC rules. A grace period shall not be applied to these regulatory topics unless permitted by the NRC rule.

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**C. ASSESSMENT (CONTINUED)**

**C.3 Independent Assessment (Continued)**

**Table 1  
Topics Subject to Independent Assessment with QATR Defined Frequency**

<b>Topic<sup>1</sup></b>
Chemistry, Effluents & Environmental Monitoring
Engineering
Maintenance
Nuclear Oversight
Operations
Performance Improvement
Procurement & Nuclear Materials Management
QA Programs
Radiological Protection & Radwaste
Training
Work Management

**Table 2  
Topics Subject to Independent Assessment with Regulatory Defined Frequency**

<b>Topic<sup>1</sup></b>
Cyber Security
Emergency Planning
Fire Protection
Fitness For Duty and Access Authorization
Independent Spent Fuel Storage
Security

1. Topic titles in these tables may vary; however, all program elements (i.e. applicable regulatory requirements and all 10 CFR 50 Appendix B criteria) will be covered as identified in implementing procedures.

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## **APPENDICES**

### **Appendix A: On-Site Review Group**

#### **1.0 General**

The On-Site Review Group (ORG) is responsible to the Plant General Manager for advice on all plant-related matters concerning nuclear safety. The requirements for personnel, committee composition, meeting frequency, quorum and meeting records are identified in implementing procedures. A general description of these areas is included below.

(Note: Each plant may name this on-site review group function differently. Regardless of the name, these requirements are met.)

In discharging its independent review responsibilities, the ORG shall keep safety considerations paramount when opposed to cost or schedule considerations. Should a voting member at a particular meeting have direct responsibility for an item under review where a conflict of such considerations is likely, that member shall be replaced (to fill the quorum) by another voting member not having such potential conflict.

#### **2.0 Composition**

The ORG is comprised of a minimum number of members as designated by the Plant General Manager and detailed in implementing procedures. All members are qualified in accordance with implementing procedure requirements that meet site Technical Specifications. Membership includes representation from at least the following disciplines: Operations, Maintenance, Engineering, Radiation Protection and Chemistry. The ORG collectively has, or has access to, the experience and competence necessary to review the areas of (1) nuclear power plant operations, (2) nuclear engineering, (3) chemistry and radiochemistry, (4) metallurgy, (5) nondestructive testing, (6) instrumentation and control, (7) radiological safety, (8) mechanical and electrical engineering, (9) administrative controls and quality assurance practices, and (10) other fields associated with the unique characteristics of the plant. Consultants may be utilized to provide expert advice as needed.

Alternate chairmen and members may be appointed by the Plant General Manager to serve on a permanent or temporary basis.

#### **3.0 Meetings**

The ORG meets commensurate with the scope of activities, but minimal frequency requirements are specified in procedures.

Rules for a quorum are established and adhered to.

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**Appendix A: On-Site Review Group (Continued)**

**4.0        Review**

The ORG reviews at least the following:

- (1) Changes to the Offsite Dose Calculation Manual (ODCM) and the Process Control Program (PCP). In addition, changes to Radwaste Treatment Systems are reviewed for St. Lucie and Seabrook Plants.
- (2) Proposed tests or experiments that affect nuclear safety.
- (3) Proposed changes or modifications to plant systems or equipment that affect nuclear safety.
- (4) Written 10CFR50.59/72.48 evaluations to verify that changes to the facility or procedures, tests or experiments do not involve a change in the Technical Specifications or require prior NRC review.
- (5) Proposed changes to Operating License and Technical Specifications.
- (6) Reports covering violations of applicable NRC statutes, codes, regulations, orders, Technical Specifications, license requirements or of internal documents having nuclear safety significance.
- (7) Reports of special reviews and investigations as requested by the Site Vice President, or Plant General Manager.
- (8) Events reportable in writing to the NRC according to applicable regulations.
- (9) Reports of significant operating abnormalities or deviations from the normal and expected performance of plant equipment or systems that affect nuclear safety.
- (10) All recognized indications of an unanticipated deficiency in some aspect of design or operation of structures, systems, or components that could affect nuclear safety.
- (11) Review of any accidental, unplanned, or uncontrolled radioactivity release.
- (12) Any other matter related to nuclear safety requested by the Site Vice President, or Plant General Manager, selected by ORG members, or referred to the ORG by other site or corporate organizations.
- (13) Review of Diesel Fuel Oil Testing Program and implementing procedures (Turkey Point Only)
- (14) Review and documentation of judgment concerning prolonged operation in bypass, channel trip, and/or repair of defective protection channels of process variables placed in bypass since the last ORG meeting. (St. Lucie only)



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**Appendix A: On-Site Review Group (Continued)**

**4.0 Review (Continued)**

Reviews of Items (6) through (12) include results of any investigations made and recommendations resulting from such investigations to prevent or reduce the probability of recurrence of the event.

**5.0 Authority**

The ORG:

- Recommends in writing to the Plant General Manager approval or disapproval of items reviewed.
- Renders determinations in writing with regards to whether Items (1) through (4), or changes thereto, require prior NRC approval in accordance with 10CFR50.59/72.48.
- Provides written notification to level(s) above the Plant General Manager of any disagreements between the ORG and the Plant General Manager.

The ORG shall advise the Plant General Manager on matters related to safe operation and overall performance. The ORG has authority to obtain access to records and personnel as needed to conduct reviews.

In carrying out its review responsibilities, the ORG may establish subcommittees or use designated organizational units to carry out the review. The subcommittees or organizational units must regularly report results of reviews for full committee consideration and may recommend items for full committee review as warranted.

**6.0 Records**

The ORG maintains written minutes of each ORG meeting, to include identification of items reviewed, and decisions and recommendations of the Committee. Copies of the minutes are provided to the on-site and off-site management position(s) above the Plant General Manager, and to other management responsible for the areas reviewed as necessary. ORG records are retained according to Section B.15.

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**Appendix B: Procedures**

Procedures are used to provide an approved, preplanned method of conducting activities affecting safety. As stated in Position C.1 of Regulatory Guide 1.33, Revision 2, NextEra Energy commits to use Appendix A of Regulatory Guide 1.33 as guidance for establishing the types of procedures that are necessary to control and support plant operation. Procedures are sufficiently detailed for a qualified individual to perform the required function without direct supervision, but may not provide a complete description of the system or plant process.

Guidance is established to identify the manner in which procedures are to be implemented, including identification of those tasks that require (1) the written procedure to be present and followed step by step while the task is being performed, (2) the user to have committed the procedure steps to memory, (3) verification of completion of significant steps, as by initials or signatures or use of check-off lists. Procedures that are required to be present and referred to directly are those developed for extensive or complex jobs where reliance on memory cannot be trusted, tasks that are infrequently performed, and tasks where steps must be performed in a specified sequence. When documentation of an action is specified, the necessary data is recorded as the task is performed.

The format of procedures may vary from plant to plant; however, procedures include the following elements, as appropriate to the purpose or task covered. These elements are not intended to imply a specific format is required:

**Title/Status:** Each procedure is given a title descriptive of the work or subject it addresses, and includes a revision number and/or date and an approval status.

**Purpose/Statement of Applicability:** The purpose for which the procedure is intended is clearly stated (if not clear from the title).

**References:** Applicable references, including reference to appropriate Technical Specifications, are included. References are included within the body of the procedure when the sequence of steps requires other tasks to be performed (according to the reference) prior to or concurrent with a particular step.

**Prerequisites:** Identifies those independent actions or procedures that must be accomplished and plant conditions which must exist prior to performing the procedure. A prerequisite applicable to only a specific portion of a procedure is so identified.

**Precautions:** Alert the user to those important measures to be used to protect equipment and personnel, including the public, or to avoid an abnormal or emergency situation during performance of the procedure. Cautionary notes applicable to specific steps are included in the main body of the procedure and are identified as such.

**Limitations and Actions:** Limitations on the parameters being controlled and appropriate corrective measures to return the parameter to the normal control band are specified.

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**Appendix B: Procedures (Continued)**

**Main Body:** Contains the step-by-step instructions in the degree of detail necessary for performing the required function or task.

**Acceptance Criteria:** The quantitative or qualitative criteria against which the success or failure (as of a test-type activity) of the step or action would be judged.

**Check-off Lists:** Complex procedures use check-off lists (aka checklists) which may be included as part of the procedure or appended to it.

Certain types of procedures governing generating site activities are common to all plants. Individual plant terminology may vary from the following, and some procedure types may be combined. Sufficient procedures are maintained to provide appropriate direction for these activities. In amplification to the appropriate elements above, such procedures are further defined as follows:

**Calibration and Test Procedures:** Contain instructions for periodic calibration and testing of safety related instrumentation and control systems, and for periodic calibration of measuring and test equipment used in activities affecting the quality of these systems. These procedures provide for meeting surveillance requirements and for assuring measurement accuracy adequate to keep safety related parameters within operational and safety limits.

**Chemical-radiochemical Control Procedures:** Contain instructions for chemical and radiochemical activities such as the nature and frequency of sampling and analyses; maintaining coolant quality within prescribed limits; limitations on concentrations of agents that could cause corrosive attack, foul heat transfer surfaces or become sources of radiation hazards due to activation; control, treatment and management of radioactive wastes and control of radioactive calibration sources, including shipping.

**Emergency Plan Implementing Procedures:** Contain instructions for activating the Emergency Response Organization and facilities, protective action levels, organizing emergency response actions, establishing necessary communications with local, state and federal agencies, and for periodically testing the procedures, communications and alarm systems to assure they function properly. Format and content of such procedures are such that requirements of each site's NRC approved Emergency Plan are met.

**Emergency Procedures:** Contain instructions for response to potential emergencies so that a trained operator will know in advance the expected course of events that will identify an emergency and the immediate actions that should be taken in response. Format and content of emergency procedures are based on regulatory and Owner's Group(s) guidance that identify potential emergency conditions and generally require such procedures to include a title, symptoms to aid in identification of the nature of the emergency, automatic actions to be expected from protective systems, immediate operator actions for operation of controls or confirmation of automatic actions, and subsequent operator actions to return the reactor to a normal condition or provide for a safe extended shutdown period under abnormal or emergency conditions.

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**Appendix B: Procedures (Continued)**

**Fuel Handling Procedures:** Contain instructions for core alterations, accountability of fuel and partial or complete refueling operations that include, for example, continuous monitoring of neutron flux throughout core loading, periodic data recording, audible annunciation of abnormal flux increases, and evaluation of core neutron multiplication to verify safety of loading increments. Procedures are also provided for receipt and inspection of new fuel, and for fuel movements in the spent fuel storage areas. Fuel handling procedures include prerequisites to verify the status of systems required for fuel handling and movement; inspection of replacement fuel and control rods; designation of proper tools, proper conditions for spent fuel movement, proper conditions for fuel cask loading and movement; and status of interlocks, reactor trip circuits and mode switches. These procedures provide requirements for refueling, including proper sequence, orientation and seating of fuel and components, rules for minimum operable instrumentation, actions for response to fuel damage, verification of shutdown margin, communications between the control room and the fuel handling station, independent verification of fuel and component locations, criteria for stopping fuel movements, and documentation of final fuel and component serial numbers and locations.

**Maintenance Procedures:** Contain instructions in sufficient detail to permit maintenance work to be performed correctly and safely, and include provisions for conducting and recording results of required inspections or tests. Appropriate referencing to other procedures or vendor manuals is provided. Instructions are also provided, although not necessarily in Maintenance Procedures, for equipment removal and return to service, and appropriate radiation protection measures (such as protective clothing and radiation monitoring).

**Power Operation and Load Changing Procedures:** Contain instructions for steady-state power operation and load changing that include provisions for use of control rods, chemical shim, coolant flow channel control, or for any other system available for short- or long-term control of reactivity, making deliberate load changes and adjusting operating parameters.

**Process Monitoring Procedures:** Contain instructions for monitoring performance of plant systems to assure that core thermal margins and coolant quality are maintained in acceptable status at all times, that integrity of fission product barriers is maintained, and that engineered safety features and emergency equipment are in a state of readiness to keep the plant in a safe condition if needed. Maximum and minimum limits for process parameters are appropriately identified.

**Radiation Control Procedures:** Contain instructions for implementation of program requirements necessary to meet regulatory commitments, including acquisition of data and use of equipment to perform necessary radiation surveys, measurements and evaluations for the assessment and control of radiation hazards. These procedures provide requirements for monitoring both external and internal exposures of employees, utilizing accepted techniques; routine radiation surveys of work areas; environmental monitoring in the vicinity of the plant; radiation monitoring of maintenance and special work activities, and for maintaining records demonstrating the adequacy of measures taken to control radiation exposures to employees and others.

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**Appendix B: Procedures (Continued)**

**Shutdown Procedures:** Contain instructions for operations during controlled shutdown and following reactor trips, and include instructions for establishing or maintaining hot standby or cold shutdown conditions, as applicable. The major steps involved in shutting down the plant are specified, including instructions for such actions as monitoring and controlling reactivity, load reduction, cooldown rates, activating or deactivating equipment, and provisions for decay heat removal. Check-off lists are used, as appropriate, for confirming completion of major steps in proper sequence.

**Start-up Procedures:** Contain instructions for starting the reactor from cold or hot conditions and establishing power operation. This includes documented determination that prerequisites have been met, including confirmation that necessary instrumentation is operable and properly set; necessary system procedures, tests and calibrations have been completed; and required approvals have been obtained. The main body includes the major steps of the start-up sequence, including reference to appropriate systems procedures. Start-up procedures contain check-off lists where appropriate.

**System Procedures:** Contain instructions for energizing, filling, venting, draining, starting up, shutting down, changing modes of operation and other instructions appropriate for operations of systems related to the safety of the plant. Separate procedures may be developed for correcting off-normal conditions for those events where system complexity may lead to operator uncertainty. System procedures contain check-off lists where appropriate.

**Test and Inspection Procedures:** Contain the objectives, acceptance criteria, prerequisites for performing the test or inspection, limiting conditions, and appropriate instructions for performing the test or inspection. These procedures also specify any special equipment or calibrations required to conduct the test or inspection and provide for appropriate documentation and evaluation by responsible authority to assure test or inspection requirements have been satisfied. Where necessary, hold or witness points are identified within the procedures and require appropriate approval for the work to continue beyond the designated point. These procedures provide for recording the date, identification of those performing the test or inspection, as-found condition, corrective actions performed (if any), and as-left condition, as appropriate for the subject test or inspection.

While not specifically a procedure type, **Temporary Procedures** may be used to direct operations during testing, refueling, maintenance and modifications; to provide guidance in unusual situations not within the scope of normal procedures; and to insure orderly and uniform operations for short periods when the plant, a system, or a component of a system is performing in a manner not covered by existing detailed procedures, or has been modified or affected in such manner that portions of existing procedures do not apply. Temporary Procedures include designation of the period of time during which they may be used.

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**Appendix C: Definitions**

The definitions of terms as provided in Section 4 of the Introduction of NQA-1 1994 are used in interpreting the requirements of NQA-1 and other standards to which the QATR commits. In addition, definitions are provided for the following terms not covered in NQA-1:

**Administrative Controls:** Rules, orders, instructions, procedures, policies, practices and designations of authority and responsibility.

**Emergency Procedures:** See Appendix B.

**Experiments:** Performance of plant operations carried out under controlled conditions in order to establish characteristics or values not previously known.

**Independent Assessment:** Planned and documented activity performed to determine by investigation, examination, observation, or evaluation of objective evidence the adequacy of and compliance with established procedures, instructions, drawings, and other applicable documents, and to determine the effectiveness of implementation. Independent Assessment, as used in this QATR, is considered equivalent to the term "audit".

**Independent Review:** Review completed by personnel not having direct responsibility for the work function under review whether they operate as part of an organizational unit or individual staff members (see Review).

**Maintenance and Modification Procedures:** Written procedures defining the policies and practices by which structures, mechanical, electrical and instrumentation and control systems, and components thereof, are kept in a condition of good repair or efficiency so that they are capable of performing their intended functions.

**Nuclear Power Plant:** Any plant using a nuclear reactor to produce electric power, process steam or space heating.

**Off normal Condition Procedures:** Written procedures which specify operator actions for restoring an operating variable to its normal controlled value when it departs from its range, or to restore normal operating conditions following a perturbation. Such actions are invoked following an operator observation or an annunciator alarm indicating a condition which, if not corrected, could degenerate into a condition requiring action under an emergency procedure. (May be called Abnormal, Off-normal or other term conveying the same intent.)

**On-site Operating Organization:** On-site personnel concerned with the operation, maintenance and certain technical services.

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**Appendix C: Definitions (Continued)**

**Operating Activities:** Work functions associated with normal operation and maintenance of the plant, and technical services routinely assigned to the on-site operating organization.

**Operating Procedures:** Written procedures defining the normal methods, means and limits of operation of the nuclear power plant, a plant system or systems, or processes, including actions to be taken by operating personnel for removal from and return to service equipment on which maintenance is to be or has been performed.

**Operational Phase:** That period of time during which the principal activity is associated with normal operation of the plant. This phase of plant life is considered to begin formally with commencement of initial fuel loading and ends with plant decommissioning.

**Quality Instruction:** Any instruction or procedure that defines programmatic controls needed to implement the Quality Assurance Topical Report. These instructions and procedures consist of documents specifically identified as "Quality Instructions" and other equivalent administrative procedures and instructions. Quality Instructions do not include lower tier work procedures or instructions where the QA program controls are contained in other documents. For example, Quality Instruction includes the plant procedure or instruction that defines the programmatic requirements for control of M&TE but not the procedure for calibrating a particular piece of M&TE.

**Quality Related:** This classification is applied to selected equipment, components, structures and services designed to support and/or protect the safety function of safety related equipment. Quality Assurance Program elements are applied with a graded approach to quality to an extent that is commensurate with the item's importance to safety. Implementing documents establish program element applicability.

These include those items or related services that are not safety related and are in one or more of the following categories:

1. Equipment, components and structures designed to meet seismic requirements or whose failure could:
  - (a) damage safety related equipment such that the equipment would be prevented from performing its safety function, or
  - (b) result in releases exceeding the exposure guidelines of the Offsite Dose Calculation Manual.

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**Appendix C: Definitions (Continued)**

2. Fire protection equipment, systems and features:
  - (a) that minimize the adverse effects of fires on safety related and the quality related structures, systems and components identified in this definition, and
  - (b) whose failure or inadvertent operation could significantly impair the safety function of structures, systems and components, and
  - (c) that is required for 10 CFR 50 Appendix R compliance (10 CFR 50 Appendix R licensed plants only), or
  - (d) that is required for compliance with the nuclear safety goal and radioactive release goal of NFPA 805 (NFPA 805 license plants only).

The above definition addresses the minimum scope of Fire Protection Equipment that is classified as Quality Related. Site specific definitions and/or commitments take precedence, if more restrictive.

3. A partial or total loss of function of a radioactive confinement system that could result in an accidental, unplanned, or uncontrolled release of radioactivity exceeding the Offsite Dose Calculation Manual limits.
4. Equipment whose failure under normal operating conditions or an anticipated transient, results in:
  - (a) exceeding a safety limit specified in the Technical Specifications, or
  - (b) initiation of a UFSAR Design Basis Accident, or
  - (c) the reactor coolant system not being in a controlled or design condition while operating or shutdown.
5. Instrumentation, equipment, components, or structures required to be operable by the Technical Specifications.
6. Instrumentation that is essential to preventing or monitoring release of radioactive material to the environment which could exceed the guidelines of the Offsite Dose Calculation Manual.
7. Instrumentation used in post accident monitoring and classified as Category 3 in response to the requirements of Regulatory Guide 1.97. (Some Category 2 instruments may also be classified as Quality Related.)
8. Items or services that are subject to unique quality assurance requirements due to specific NRC imposed regulatory requirements.



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**Appendix C: Definitions (Continued)**

**Review:** A deliberately critical examination, including observation of plant operation, evaluation of assessment results, procedures, certain contemplated actions, and after-the-fact investigations of abnormal conditions.

**Supervision:** Direction of personnel activities or monitoring of plant functions by an individual responsible and accountable for the activities they direct or monitor.

**Surveillance Testing:** Periodic testing to verify that safety related structures, systems and components continue to function or are in a state of readiness to perform their functions, and to provide assurance that failures or substandard performance do not remain undetected and that the required reliability of safety related systems is maintained. Such functions include keeping parameters within normal bounds or acting to put the plant in a safe condition if they exceed normal bounds.

**System:** An integral part of nuclear power plant comprising components which may be operated or used as a separate entity to perform a specific function.

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**Appendix D: Revision Summaries**

<b>Revision 0, 01/19/07</b>	
<b>Change/Reason for Change</b>	<b>Basis for Meeting 10CFR50</b>
New Program	<ul style="list-style-type: none"> <li>NRC SE dated December 29, 2006</li> </ul> <p>Subsequent organizational change, which added the Chief Operating Officer (COO), was reviewed in accordance with 10 CFR50.54(a) and determined not to constitute a reduction in commitment.</p>

<b>Revision 1, 02/11/08</b>	
<b>Change/Reason for Change</b>	<b>Basis for Meeting 10CFR50</b>
<ul style="list-style-type: none"> <li>Organizational changes and editorial corrections</li> <li>Add ISFSI as required assessment topics</li> <li>Site Security assessment topic was clarified to indicate that it includes safeguards contingency plans</li> </ul>	<ul style="list-style-type: none"> <li>Organizational changes and editorial corrections were reviewed in accordance with 10 CFR 50.54(a) and determined not to constitute a reduction in commitment.</li> </ul> <p>Assessment topic added is in accordance with 10 CFR 72, SubpartG. Assessment of safeguards contingency plans is in accordance with 10 CFR 50.54(P)</p>

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Revision 2, 06/20/08	
Change/Reason for Change	Basis for Meeting 10CFR50
<ul style="list-style-type: none"> <li>• Add NextEra Energy Point Beach, LLC to the scope of FPL-1</li> <li>• The scope of the Engineering and Configuration Management assessment topic was clarified to indicate that it includes determination of QAP applicability to SSCs and classification of SSCs</li> <li>• The scope of the corrective action program and self-assessment topic was clarified to indicate that it includes Operating Experience</li> <li>• Make an editorial correction</li> <li>• The Introduction was clarified to indicate that nuclear safety related items may be identified in a Q-List.</li> <li>• The commitment to General Design Criteria I was corrected to indicate that some plants are committed to the 1967 proposed draft.</li> <li>• Provide an alternate exception to NQA-1, Appendix 2A-1, for qualification / certification of inspection personnel applicable to Point Beach only.</li> <li>• Revise FPL's commitment to Regulatory Guide 1.28, Regulatory Position C.1, to reflect the alternate exception for Point Beach.</li> <li>• To reflect organizational changes</li> </ul>	<ul style="list-style-type: none"> <li>• Changes for NextEra Energy Point Beach, LLC were reviewed in accordance with 10 CFR 50.54(a) and determined not to constitute a reduction in commitment</li> <li>• The clarifications and corrections were reviewed in accordance with 10 CFR 50.54(a) and determined not to constitute a reduction in commitment</li> <li>• The alternate exception to NQA-1, Appendix 2A-1, which is only applicable to Point Beach, is contained in the current NextEra Energy Point Beach, LLC, QATR (NextEra Energy PB-1), therefore, there is no change in commitment.</li> <li>• Organizational changes were reviewed in accordance with 10 CFR 50.54(a) and determined not to constitute a reduction in commitment.</li> </ul>

Revision 3, 02/06/09	
Change/Reason for Change	Basis for Meeting 10CFR50
<ul style="list-style-type: none"> <li>• Organizational changes</li> <li>• Editorial corrections</li> <li>• Grammatical corrections</li> <li>• New Compliance Order</li> <li>• Update audit requirement basis for FFD/AA</li> <li>• Clarification for electronic records</li> </ul>	<ul style="list-style-type: none"> <li>• Organizational changes to align with fleet concepts</li> <li>• Clarifications for electronic records</li> <li>• Editorial and grammatical corrections</li> </ul>

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Revision 4, 06/27/09	
Change/Reason for Change	Basis for Meeting 10CFR50
<ul style="list-style-type: none"> <li>Remove "FPL Energy" nomenclature and replace with "NextEra Energy"</li> </ul>	<ul style="list-style-type: none"> <li>This is a name change only and does not affect any commitments.</li> </ul>

Revision 5, 08/28/09	
Change/Reason for Change	Basis for Meeting 10CFR50
<ul style="list-style-type: none"> <li>Organizational changes</li> <li>Title corrections</li> <li>Grammatical corrections</li> <li>Standardizing on FPL/NextEra Energy</li> <li>NUPIC reference clarification</li> <li>Standardizing on Nuclear Oversight</li> </ul>	<ul style="list-style-type: none"> <li>Organization changes, grammatical corrections, NextEra Energy nomenclature changes, and Nuclear Oversight name changes were reviewed in accordance with 10 CFR 50.54(a) and determined not to constitute a reduction in commitment.</li> </ul>

Revision 6, 03/05/10	
Change/Reason for Change	Basis for Meeting 10CFR50
<ul style="list-style-type: none"> <li>Revise Chief Nuclear Officer's new title to Executive Vice President and Chief Nuclear Officer</li> <li>Correct title and update responsibilities of Vice President Fleet Support</li> <li>Remove position of Vice President Nuclear Plant Support</li> <li>Remove position of Vice President Nuclear Capital Projects</li> <li>Add new position of Vice President Fleet Outages Planning and Execution</li> </ul>	<ul style="list-style-type: none"> <li>This change reflects recent organizational changes, title changes, and realignment of responsibilities that were reviewed in accordance with 10 CFR 50.54(a) and determined not to constitute a reduction in commitment.</li> </ul>

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<b>Revision 7, 06/18/10</b>	
<b>Change/Reason for Change</b>	<b>Basis for Meeting 10CFR50</b>
<ul style="list-style-type: none"> <li>Company name change from FPL Group to NextEra Energy</li> </ul>	<ul style="list-style-type: none"> <li>This is a company name change only with corresponding CEO and COO title changes. This was reviewed in accordance with 10 CFR 50.54(a) and determined not to constitute a reduction in commitment.</li> </ul>

<b>Revision 8, 10/22/10</b>	
<b>Change/Reason for Change</b>	<b>Basis for Meeting 10CFR50</b>
<ul style="list-style-type: none"> <li>Revise Table 1</li> <li>Remove Table 2</li> </ul>	<ul style="list-style-type: none"> <li>This change implements a restructuring of audit topic areas for the NextEra Energy Nuclear Oversight Auditing process to align with the Corporate Functional Area Manager (CFAM) areas. This will improve the effectiveness of reporting identified issues and support fleet standardization. This was reviewed in accordance with 10 CFR 50.54(a) and determined not to constitute a reduction in commitment.</li> </ul>

<b>Revision 9, 02/18/11</b>	
<b>Change/Reason for Change</b>	<b>Basis for Meeting 10CFR50</b>
<ul style="list-style-type: none"> <li>To add an additional exception to NQA-1-1994 requirements for In-Storage Maintenance to Section B.7.</li> <li>Organizational Change creating position of Vice President Organizational Support and realigning organizational responsibilities from Vice President Fleet Support and adding the position of Director IT Business Solutions IM Nuclear Systems to Section A.2, Organization and the organizational chart to support cyber security program interface.</li> </ul>	<ul style="list-style-type: none"> <li>This change provides an exception that provides greater flexibility in evaluating vendor recommendations as they apply to In-Storage Maintenance. This change was reviewed in accordance with 10 CFR 50.54, and it was determined not to constitute a reduction in commitment based on the fact that this exception has been approved by the NRC for other nuclear utilities.</li> <li>This change creates a new position of Vice President Organizational Support, and realigns responsibilities previously assigned to the VP Fleet Support. Realignment of responsibilities was reviewed in accordance with 10 CFR 50.54(a) and determined not to constitute a reduction in commitment.</li> </ul>

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Revision 10, 07/29/11	
Change/Reason for Change	Basis for Meeting 10CFR50
<ul style="list-style-type: none"> <li>Organizational change to remove the position of Director Plant Support from the site organization chart.</li> </ul>	<ul style="list-style-type: none"> <li>This change deletes an unused position from the QATR organizational chart. This change was reviewed in accordance with 10 CFR 50.54(a) and determined not to constitute a reduction in commitment.</li> </ul>

Revision 11, 02/10/12	
Change/Reason for Change	Basis for Meeting 10CFR50
<ul style="list-style-type: none"> <li>Organizational change eliminating Vice President Nuclear Engineering Support and the Vice President Organizational Support positions. All of the responsibilities/functions currently reporting to these two positions will be aligned under the Vice President Nuclear Fleet Support. Functional position descriptions from the two eliminated positions are being moved into Section A.2.3.b Vice President Fleet Support, which is renamed Vice President Nuclear Fleet Support.</li> </ul>	<ul style="list-style-type: none"> <li>This change eliminates the Vice President Nuclear Engineering support and the Vice President Organizational Support, and realigns all responsibilities under the Vice President Nuclear Fleet Support. This change was reviewed in accordance with 10 CFR 50.54(a) and was determined not to constitute a reduction in commitment.</li> </ul>

Revision 12, 07/03/12	
Change/Reason for Change	Basis for Meeting 10CFR50
<ul style="list-style-type: none"> <li>Administrative change to: (1) Institute the NextEra Energy logo; (2) Clarify Section A.7.3 based on Confirmatory Action Letter EA-08-172 dated 10/20/08 (bulleted item # 24).</li> <li>Administrative change to: (1) Delete the limit on alternates consistent with Seabrook Station License Amendment 34; (2) Clarify Appendix B applicability to audit topics.</li> <li>Administrative change to: (1) Change title to Vice President Nuclear Fleet Technical Support; (2) Standardize to NextEra Energy; (3) Update title to President and Chief Executive Officer.</li> </ul>	<ul style="list-style-type: none"> <li>This change incorporates administrative changes. This change was reviewed in accordance with 10 CFR 50.54(a) and determined not to constitute a reduction in commitment.</li> <li>This change incorporates administrative changes. This change was reviewed in accordance with 10 CFR 50.54(a) and determined not to constitute a reduction in commitment.</li> <li>This change incorporates administrative changes. This change was reviewed in accordance with 10 CFR 50.54(a) and determined not to constitute a reduction in commitment.</li> </ul>

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Revision 12, 07/03/12	
Change/Reason for Change	Basis for Meeting 10CFR50
<ul style="list-style-type: none"> <li>Organizational change to: (1) Realigned a number of positions that reported up through the Vice President and Chief Strategy, Policy and Business Process Improvement Officer. As a result of these changes Vice President and Chief Information Officer will report to Vice Chairman and Chief Financial Officer. (2) An organizational announcement made on March 16, 2012 that relates to the future retirement of the Chairman and CEO. Effective July 1, 2012, the CEO will be replaced by the President and CEO.</li> </ul>	<ul style="list-style-type: none"> <li>This change incorporates organizational changes. This change was reviewed in accordance with 10 CFR 50.54(a) and determined not to constitute a reduction in commitment.</li> </ul>
<ul style="list-style-type: none"> <li>An organizational announcement was made on April 19, 2012 identifying a new position titled General Manager Issue Management, which reports to the Vice President Nuclear Fleet Technical Support. Two existing positions will be aligned under this General Manager, which is the Nuclear Engineering Chiefs Manager and the Nuclear Component Support &amp; Inspection Manager. One General Manager title was changed from Functional Area Support to Nuclear CFAM.</li> <li>An organizational announcement was made by the Chief Nuclear Officer on May 24, 2012 outlining the following changes that affect the QATR: <ul style="list-style-type: none"> <li>A new position of Vice President CFAM and Outage Support was created that reports to the Vice President Nuclear Fleet Technical Support.</li> <li>A new position of Vice President Organizational Effectiveness was created that reports to the Vice President Nuclear Fleet Technical Support.</li> <li>A new position of General Manager of Operations has been created that reports to the Vice President CFAM and Outage Support.</li> <li>The new position of General Manager Issue Management has been renamed General Manager Engineering Rapid Response Team (ERRT).</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>This change incorporates organizational changes. This change was reviewed in accordance with 10 CFR 50.54(a) and determined not to constitute a reduction in commitment.</li> <li>This change incorporates organizational changes. This change was reviewed in accordance with 10 CFR 50.54(a) and determined not to constitute a reduction in commitment.</li> </ul>

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**Revision 13, 04/01/13**

Change/Reason for Change	Basis for Meeting 10CFR50
<ul style="list-style-type: none"> <li>Restructured section C.3 "Independent Assessment" in its entirety by modifying the sequence of paragraphs within this section and making the following changes: <p>Regrouped and consolidated internal audit topics to improve the efficiency and effectiveness of audit process execution. In support of this revision, Table 1 lists topics that are audited on either a fixed frequency or on a variable frequency as governed by an Expert Panel process. Table 2 lists the topics that are audited on a fixed frequency that is prescribed by regulatory requirements. As part of this change a more detailed list of applicable 10 CFR 50 Appendix B criteria, governing regulations and the corresponding audit frequencies has been removed from the QATR and has been added to an implementing procedure.</p> <p>Restructuring this section also clarifies the distinction between requirements that are applicable to the use of the fixed audit scheduling and the variable frequency audit scheduling methods.</p> </li> <li>An organizational announcement dated July 3, 2012 made by Vice President; Nuclear Fleet Technical Support rearranged a number of positions reporting to him. As part of this announcement, the position of General Manager Engineering Rapid Response Team was eliminated.</li> </ul>	<ul style="list-style-type: none"> <li>This change was evaluated in accordance with 10 CFR 50.54(a) requirements against the guidance in NUREG 0800, Standard Review Plan (SRP). The SRP requires a commitment to audit compliance with the requirements of 10CFR 50 Appendix B. NextEra Energy FPL-1 Quality Assurance Topical Report contains this commitment in section A.7 "Regulatory Commitments". The SRP does not require that a specific listing of either audit topics or applicable Appendix B criteria be described in the QATR. In addition, a note included in both the previous and proposed revisions to the QATR that applies to the Table 1 &amp; 2 assessment topics, states "Topic titles in these tables may vary; however, all program elements (i.e. applicable regulatory requirements and all 10CFR50 Appendix B criteria) will be covered as identified in implementing procedures". <p>This change is consistent with the FPL Topical Quality Assurance Report that existed before transitioning to the QATR in that it only contained a list of audit topics and a statement that all criteria in Appendix B to 10 CFR Part 50 would be audited. The program met the SRP and was approved by the NRC.</p> <p>Therefore removing the more detailed list of applicable 10 CFR 50 Appendix B criteria, governing regulations and the corresponding audit frequencies from the QATR does not constitute a "reduction in commitment".</p> </li> <li>This change incorporates organizational changes and was reviewed in accordance with 10 CFR 50.54(a) and determined not to constitute a reduction in commitment.</li> </ul>



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<b>Revision 14, 11/21/13</b>	
<b>Change/Reason for Change</b>	<b>Basis for Meeting 10CFR50</b>
<ul style="list-style-type: none"> <li>Revise Section A.7, Regulatory Commitments for plants with an NFPA 805 Fire Protection licensing bases</li> <li>Revise Appendix C "Fire Protection Equipment" definition</li> </ul>	<p>This change identifies the Regulatory guide and NEI commitments that implement the NFPA 805 Licensing requirement. This change was reviewed in accordance with 10 CFR 50.54(a) and was determined not to constitute a reduction in commitment.</p>

<b>Revision 15, 09/01/14</b>	
<p>Note: Since this QATR revision incorporates multiple Quality Program Revision Request (QPRR) packages, in some cases, pending QPRR revisions were impacted by subsequent QPRR revisions.</p>	
<b>Change/Reason for Change</b>	<b>Basis for Meeting 10CFR50</b>
<ul style="list-style-type: none"> <li><b>QPRR QR032:</b> The site organizational chart was modified to show the Shift Technical Advisor (STA) position reporting to the "Shift Manager" position.</li> <li><b>QPRR QR033:</b> The position of General Manager Organizational Effectiveness was introduced. The Emergency Preparedness and Chemistry CFAMs were included under the VP CFAM and Outage Support. The Director IT Business Solutions IM Nuclear Systems dotted line reporting function was moved from the Vice President Nuclear Fleet Technical Support to the new General Manager Organizational Effectiveness position. An editorial change in QATR Section C.1 changed the word "can" to "may" to be consistent with QATR Section A.5 (third bullet, last sentence).</li> <li><b>QPRR QR035:</b> A change to the recently incorporated definition for Fire Protection Equipment was made to clarify what is specifically meant when referring to Quality-Related Fire Protection Equipment.</li> </ul>	<p>This change was evaluated in accordance with 10 CFR 50.54(a) requirements. The change is an Organizational revision and persons and organizations performing quality assurance functions continue to have the requisite authority and organizational freedom, including sufficient independence from cost and schedule when opposed to safety considerations and therefore this is not considered a reduction in commitment.</p> <p>This change was evaluated in accordance with 10 CFR 50.54(a) requirements. The change is an Organizational revision and persons and organizations performing quality assurance functions continue to have the requisite authority and organizational freedom, including sufficient independence from cost and schedule when opposed to safety considerations and therefore this is not considered a reduction in commitment.</p> <p>This change was evaluated in accordance with 10 CFR 50.54(a) requirements and the requirements of Regulatory Guide 1.205, December 2009, Risk-Informed, Performance-Based Fire Protection For Existing Light-Water Nuclear Power Plants. Since this change to the NextEra Energy quality assurance program description addresses the addition of a new commitment, it does not constitute a reduction in existing commitments. This change is a non-intent administrative change being made because the term "important to safety" is an undefined term. There is no reduction in commitment.</p>

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**Revision 15, 09/01/14**

Note: Since this QATR revision incorporates multiple Quality Program Revision Request (QPRR) packages, in some cases, pending QPRR revisions were impacted by subsequent QPRR revisions.

Change/Reason for Change	Basis for Meeting 10CFR50
<ul style="list-style-type: none"> <li>• <b>QPRR QR036:</b> The positions of Vice President Fleet Support Services and Director Fleet Design Engineering were created. The Vice President CFAM and Outage Support and the General Manager Organizational Effectiveness were realigned to report to the Vice President Fleet Support Services position. The Director Fleet Design Engineering reports to the Vice President Fleet Technical Support. The positions of Vice President Extended Power Uprate (EPU), EPU Project Implementation, and EPU Site Director have been eliminated due to completion of the EPU projects. Clarification of the reporting chain for the Director IT Business Solutions IM Nuclear Systems has been provided as part of this change. The position of Vice President Organizational Effectiveness was eliminated.</li> <li>• <b>QPRR QR037:</b> Project Momentum changes have been made to incorporate Fleet Design Engineering and Interfaces with Power Generation for Turbine Generators, large pumps and motors, thermal performance, and the Fleet Performance and Diagnostic Center. "NextEra Energy President and Chief Executive Officer" title changed to "NextEra Energy Chairman and Chief Executive Officer".</li> <li>• <b>QPRR QR038:</b> The Nuclear Materials Manager position was eliminated at each site, and the Integrated Supply Chain (ISC) was reorganized. The "Executive Vice President Engineering, Construction &amp; Corporate Services" title has changed to "Executive Vice President Engineering, Construction, and ISC".</li> </ul>	<p>This change was evaluated in accordance with 10 CFR 50.54(a) requirements. The change is an Organizational revision and persons and organizations performing quality assurance functions continue to have the requisite authority and organizational freedom, including sufficient independence from cost and schedule when opposed to safety considerations and therefore this is not considered a reduction in commitment.</p> <p>This change was evaluated in accordance with 10 CFR 50.54(a) requirements. The change is an Organizational revision and persons and organizations performing quality assurance functions continue to have the requisite authority and organizational freedom, including sufficient independence from cost and schedule when opposed to safety considerations. The interfaces established with Power Generation will not affect any quality or safety-related functions described in the QATR. Therefore these changes are not considered reductions in commitments and continue to meet 10CFR 50 Appendix B requirements.</p> <p>This change was evaluated in accordance with 10 CFR 50.54(a) requirements. The change is an Organizational revision and persons and organizations performing quality assurance functions continue to have the requisite authority and organizational freedom necessary to perform their quality assurance functions and therefore this is not considered a reduction in commitment.</p>
<ul style="list-style-type: none"> <li>• <b>QPRR QR041:</b> "Executive Vice President and Chief Nuclear Officer" title changed to "President and Chief Nuclear Officer, Nuclear Division".</li> </ul>	<p>This change reflects an administrative title change that was reviewed in accordance with 10 CFR 50.54(a) and determined not to constitute a reduction in commitment.</p>

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**Revision 16, 12/19/14**

Change/Reason for Change	Basis for Meeting 10CFR50
<ul style="list-style-type: none"> <li>• <b>QR039:</b> NextEra nuclear plants with a renewed Facility Operating License are committed to satisfy the intent of NUREG-1800, Branch Technical Position IQMB-I, "Quality Assurance for Aging Management Programs," and/or NUREG-1801 elements. The 10 CFR Part 50, Appendix B quality assurance program provides for corrective actions, the confirmation process, and administrative controls for Aging Management Programs (AMP) for license renewal. The scope of this existing QA program is expanded to include non-safety-related structures and components that are subject to an Aging Management Review (AMR) for license renewal. AR 01921585 identified that this issue was identified during the NRC License Renewal Inspection at PDA.</li> <li>• <b>QR040:</b> Revise Section A.2.1.2.d, General Manager Organizational Effectiveness to modify the "Licensing" functional responsibility to read: "Licensing, including licensing actions". Also, revise Section A.2.2.1.b, Licensing Manager to delete the words "licensing actions" from this position. This change is to show that the "licensing actions" are performed at the Corporate level.</li> <li>• <b>QR042:</b> Revise Section A.2.1.2.I, Director Nuclear Assurance, through Nuclear Oversight Manager(s), to address the responsibility for the performance of receipt inspection to verify that purchased items comply with procurement documents at stations where receipt inspection is performed by the Nuclear Oversight Organization. (Reference: AR 1984358)</li> </ul>	<p>This change was evaluated in accordance with 10 CFR 50.54(a) and NUREG-1800 and 1801 requirements. The change is documenting previous commitments identified in the SER's that approved the renewed Facility Operating Licenses and is including these commitments in Section A.7 Regulatory Commitments. This change is not changing any requirements or commitments currently in the QATR and is not considered a reduction in commitment.</p> <p>This change was evaluated in accordance with 10 CFR 50.54(a) requirements. The change is documenting the relocation of the licensing functional responsibility for "licensing actions" from the site Licensing organizations to the Corporate Licensing organization and does not change how this function is performed. This is not considered a reduction in commitment.</p> <p>This change was evaluated in accordance with 10 CFR 50.54(a) requirements. The change is documenting the additional responsibilities of the Director Nuclear Oversight and does not change how the function is performed. This is not considered a reduction in commitment.</p>

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Revision 17, 04/13/15	
Change/Reason for Change	Basis for Meeting 10CFR50
<ul style="list-style-type: none"> <li>• <b>QR043:</b> Remove alternative Independent Assessment scheduling methodology utilizing the review and evaluation by an expert panel (Flexible Audit Scheduling) from Section C.3, Independent Assessment.</li> </ul>	<p>This change was evaluated in accordance with 10 CFR 50.54(a) requirements.</p> <p>ASME NQA-1-1994 states that audits shall be scheduled at a frequency commensurate with the status and importance of the activity. It does not specify either a flexible or fixed audit scheduling process.</p> <p>The deletion of the flexible audit scheduling process is not a reduction in commitment since the remaining fixed audit scheduling process continues to meet the QATR basis document and 10 CFR 50.</p>
<ul style="list-style-type: none"> <li>• <b>QR044:</b> Organizational Announcement from Mano Nazar, President, Nuclear Division and Chief Nuclear Officer dated March 3, 2015. <ul style="list-style-type: none"> <li>– Section A.2, Organization--New positions, descriptions, and reporting relationships for Nuclear Chief Operating Officer; Vice President Projects Design and Execution, Director Fleet Regulatory Projects, General Manager Fleet Projects, and General Manager Fleet Engineering.</li> <li>– Appendix E, Corporate Organization Chart--Organization Relationships of Key Management and Functional Groups (Corporate) for Nuclear Chief Operating Officer, Vice President Projects Design and Execution, and Director Fleet Regulatory Projects. Move General Manager Fleet Engineering to report to the VP Fleet Support Services. Delete VP. Fleet Technical Support. Align General Manager Fleet Projects and Director Fleet Design Engineering under VP Projects Design and Execution.</li> </ul> </li> </ul>	<p>This change was evaluated in accordance with 10 CFR 50.54(a) requirements. The change is an organizational revision and persons and organizations performing quality functions continue to have the requisite authority and organizational freedom, including sufficient independence from cost and schedule when opposed to safety considerations and therefore this is not considered a reduction in commitment.</p>

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Revision 18, 11/20/15	
Change/Reason for Change	Basis for Meeting 10CFR50
QR045: Change "Director of Emergency Preparedness" to "Manager of Emergency Preparedness" due to the position Director of Emergency Preparedness being downgraded to Manager of Emergency Preparedness when the Director of Emergency Preparedness retired.	<ul style="list-style-type: none"> <li>This is a position title change only and does not affect any commitments.</li> </ul>
<p>QR046: This revision has been prepared to incorporate the Vice President Fleet Technical Support organizational announcement made on April 30, 2015, and the Chief Nuclear Officer organizational announcement made on August 11, 2015.</p> <p>The April 30, 2015 announcement contains the addition of a General Manager CFAMs and Projects CFAM position and the realignment of the Director Fleet Design Engineering under the Vice President Fleet Technical Support. The August 11, 2015 announcement contains the realignment of the Nuclear Operations and Fleet Technical Support functions to the Chief Nuclear Officer.</p> <p>This revision also streamlines the A.2 Organization and Appendix E Corporate Organization Chart QATR sections to show senior management and interfacing positions reporting to the Chief Nuclear Officer and above.</p>	<ul style="list-style-type: none"> <li>This change was evaluated in accordance with 10 CFR 50.54(a) requirements. The change is an Organizational revision and persons and organizations performing quality functions continue to have the requisite authority and organizational freedom, including sufficient independence from cost and schedule when opposed to safety considerations and therefore this is not considered a reduction in commitment.</li> </ul>
QR047: The proposed revision to the QATR Appendix C has been submitted by Engineering in order to align fleet procedures, site procedures and the QATR by adding the following two additional categories to the definition of "Quality Related": (1) Instrumentation used in post accident monitoring and classified as Category 3 in response to the requirements of Regulatory Guide 1.97 (some Category 2 instruments may also be classified as Quality Related); and (2) Items or services that are subject to unique quality assurance requirements due to specific NRC imposed regulatory requirements.	<ul style="list-style-type: none"> <li>Selected elements of the Quality Assurance Program are applied to certain quality related equipment and activities that are not safety related, but support safe and reliable plant operations, or where other regulatory or industry guidance establishes program requirements. This quality related classification is applied to selected equipment, components, structures and services designed to support and/or protect the safety function of safety related equipment.</li> <li>The proposed revision to the QATR definition of "Quality Related" was evaluated in accordance with 10 CFR 50.54(a) requirements and determined to <u>not</u> constitute a reduction to the commitments in the quality assurance program description as accepted by the NRC. This evaluation was based upon the proposed revision <u>adding</u> additional non safety related categories to the definition of "Quality Related". Therefore, the proposed revision is not considered to be a reduction in commitment.</li> </ul>

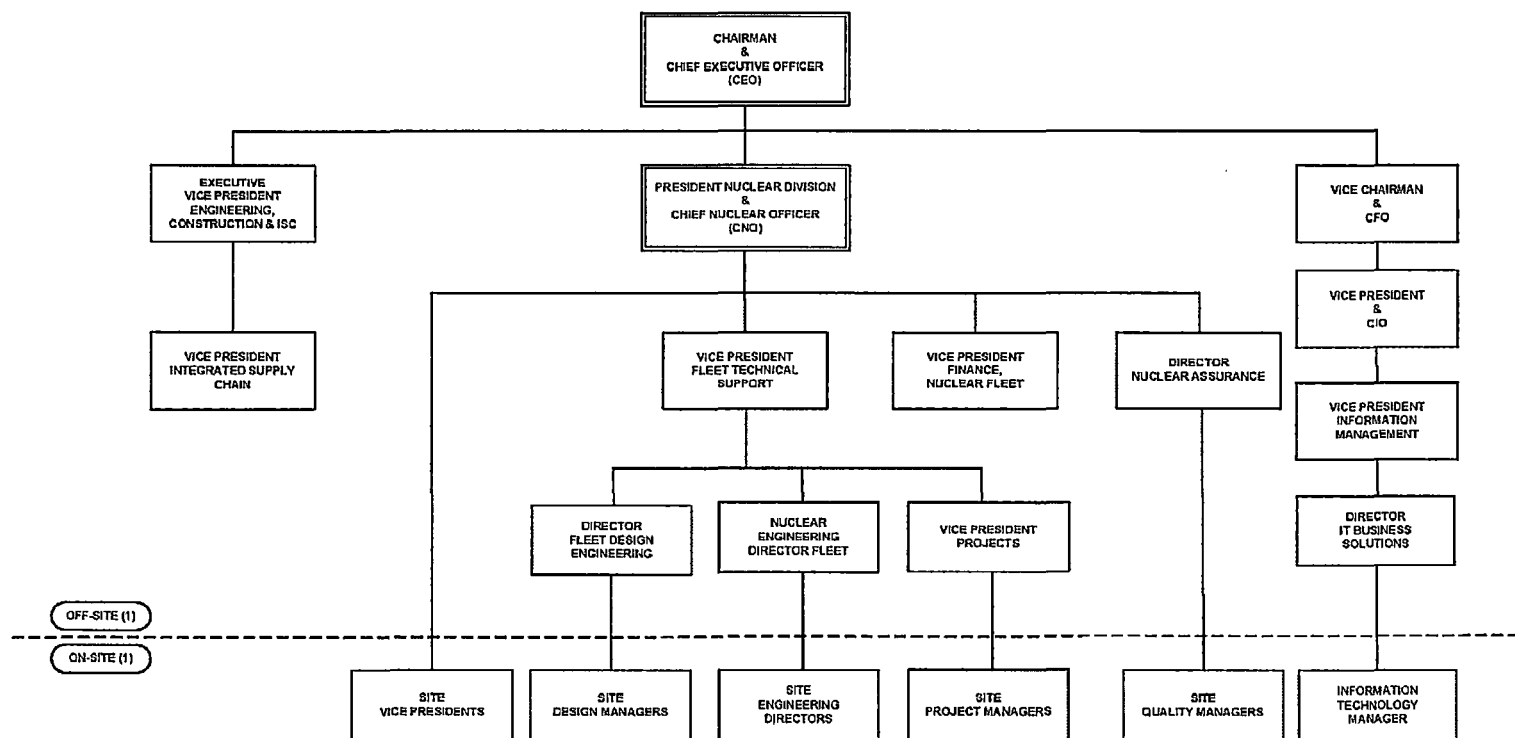
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Revision 19, 03/11/16	
Change/Reason for Change	Basis for Meeting 10CFR50
<p>QR048: The changes incorporated within this revision include both Administrative and Organizational (Conforming) changes. The conforming change results from a senior management organizational announcement and will be distributed "For Information Only" to affected organizations as described by NA-AA-210-1000, Section 4.3.B. (2). The administrative change incorporates a functional responsibility description which was omitted from QATR Section A.2.1.2.h (Revision 18). As provided by NA-AA-210-1000, Section 4.3.C. (1), administrative changes only require approval of the NOS QAPRC member, the QAPRC Chairperson and the Director Nuclear Assurance.</p>	<ul style="list-style-type: none"> <li>• This change was evaluated in accordance with 10 CFR 50.54(a), <i>Conditions of License</i> requirements and NA-AA-210-1000, <i>Quality Assurance Program Administration</i> (Attachment 1). The Organizational and Administrative Changes described do not result in reduction of any QA Program commitment for the following reasons: (1) Organizational revisions that ensure that persons and organizations performing quality assurance functions continue to have the requisite authority and organizational freedom, including sufficient independence from cost and schedule when opposed to safety considerations (paragraph vi). (2) Quality Assurance program changes involving administrative improvements and clarifications, spelling corrections, punctuation or editorial items. (paragraph vii)</li> </ul>

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**Appendix E: Organization Charts**  
**Chart 1 of 2: Corporate**

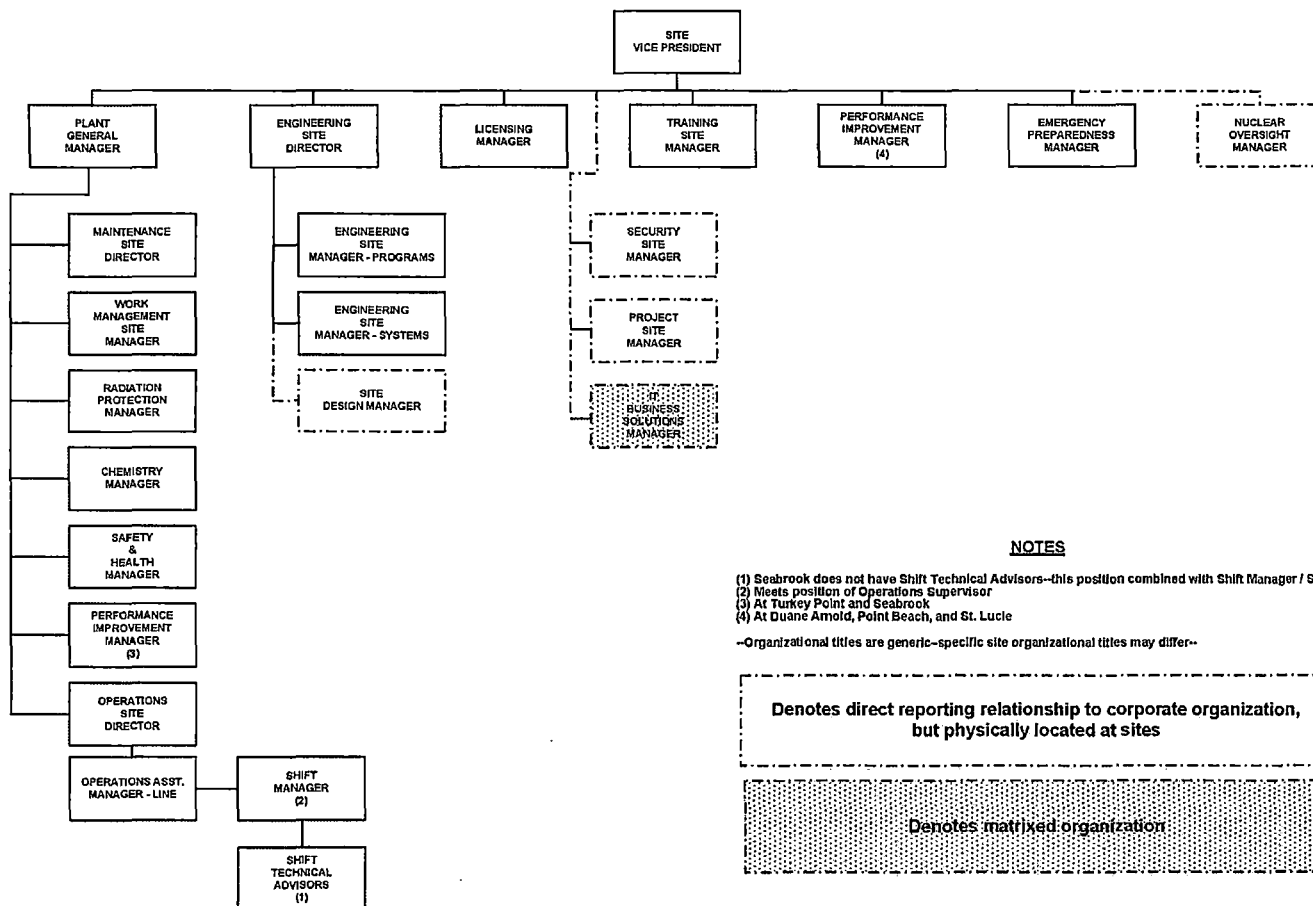
**ORGANIZATION RELATIONSHIPS OF KEY MANAGEMENT & FUNCTIONAL GROUPS**  
**(CORPORATE)**  
**Revision 13**



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**Appendix E: Organization Charts**  
**Chart 2 of 2: Site**

**ORGANIZATION RELATIONSHIPS OF KEY MANAGEMENT & FUNCTIONAL GROUPS**  
**(SITE)**  
Revision 7

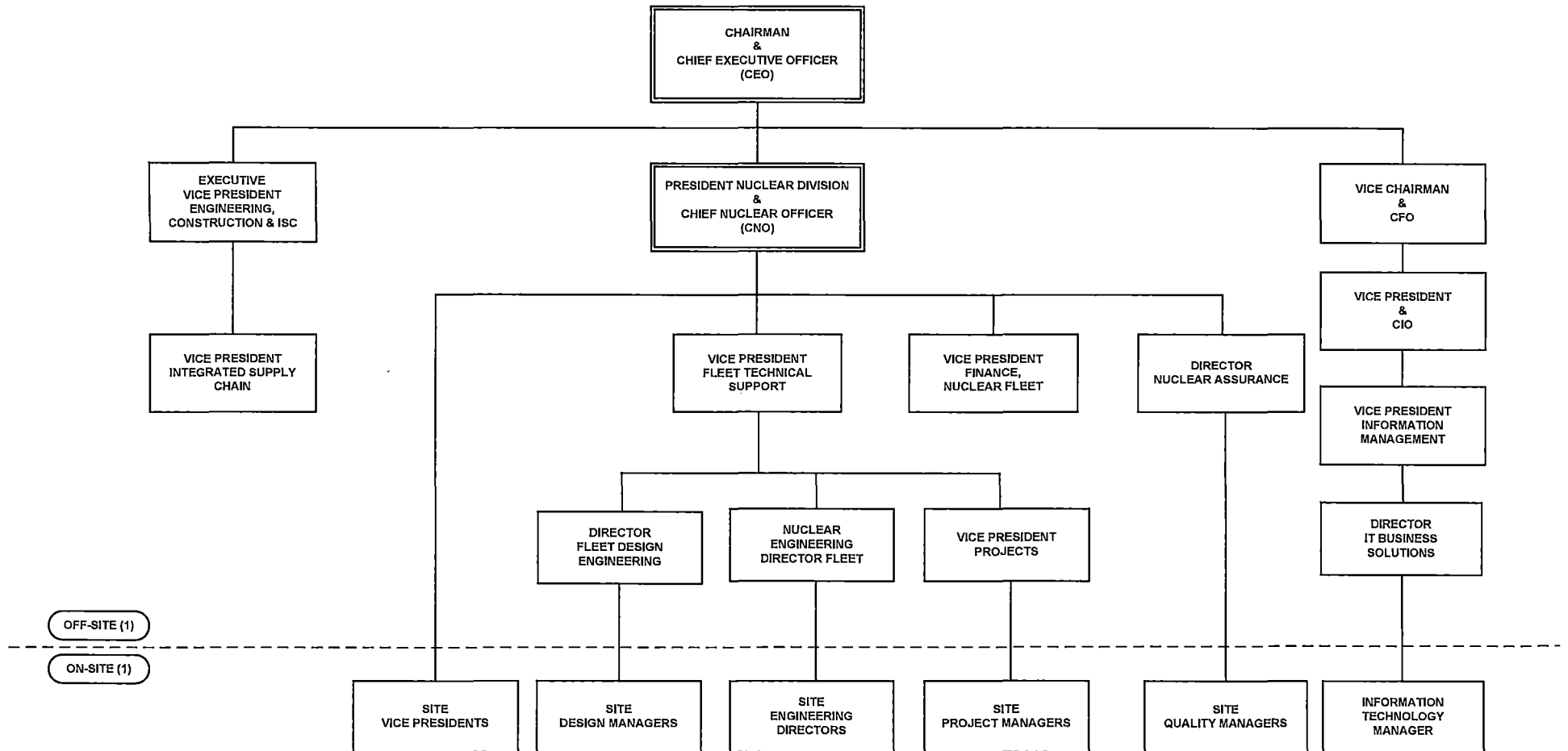






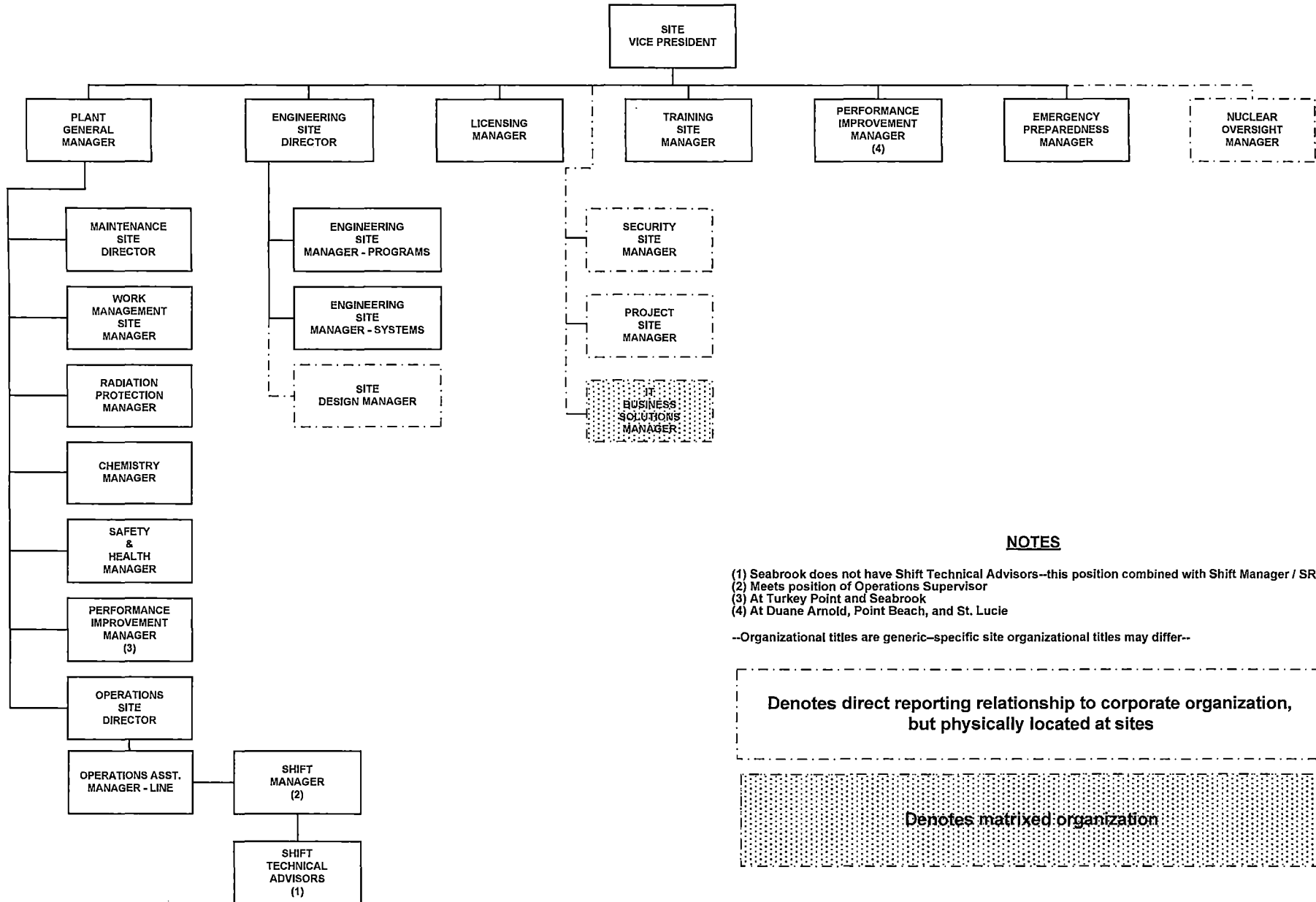
# **Organization Chart**

**ORGANIZATION RELATIONSHIPS OF KEY MANAGEMENT & FUNCTIONAL GROUPS  
(CORPORATE)**  
Revision 13



# ORGANIZATION RELATIONSHIPS OF KEY MANAGEMENT & FUNCTIONAL GROUPS (SITE)

Revision 7



## NOTES

- (1) Seabrook does not have Shift Technical Advisors--this position combined with Shift Manager / SRO
- (2) Meets position of Operations Supervisor
- (3) At Turkey Point and Seabrook
- (4) At Duane Arnold, Point Beach, and St. Lucie

--Organizational titles are generic--specific site organizational titles may differ--

Denotes direct reporting relationship to corporate organization,  
but physically located at sites

Denotes matrixed organization