



L-2022-068  
10 CFR 50.54(a)(3)

April 25, 2022

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

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

NextEra Energy Duane Arnold Quality Assurance Topical Report (FPL-3)  
Revision 2

Pursuant to 10 CFR 50.54(a)(3), attached is the an update of the NextEra Energy Duane Arnold, LLC Quality Assurance Topical Report (QATR) (FPL-3). 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 2 is the current version of FPL-3 in use and became effective on April 21, 2022. The Enclosure of this letter provides a copy of Revision 2 of FPL-3 for information purposes only.

Should there be any questions or need for additional information, please contact Russell Stottlemire at (561) 805-2535.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Russell Stottlemire', is written over a horizontal line.

Russell Stottlemire  
Director, Nuclear Assurance and Assessment  
Florida Power & Light Company

Enclosure: NextEra Energy Duane Arnold QATR (FPL-3) Current Version (Revision 2)

cc: Regional Administrator, Region III



NextEra™ Energy Duane Arnold, LLC

Quality Assurance Topical Report

FPL- 3

**NextEra Energy**  
**Quality Assurance Topical Report (FPL-3)**

**POLICY STATEMENT**

NextEra Energy Duane Arnold, LLC shall maintain the shut-down Duane Arnold Energy Center in a manner that will ensure the health and safety of the public and workers. The facility shall be maintained in compliance with the requirements of the Code of Federal Regulations, the applicable Nuclear Regulatory Commission (NRC) Facility Licenses, and applicable laws and regulations of the state and local governments.

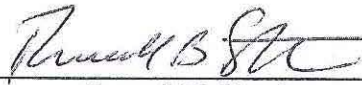
The Quality Assurance Program (QAP) described herein and associated implementing documents provide for control of activities that affect the quality of safety related nuclear plant structures, systems, and components (SSCs). The QAP is also applied to certain quality related equipment and activities where other regulatory or industry guidance establish 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 and Assessment.

NextEra Energy  
Quality Assurance Topical Report (FPL-3)

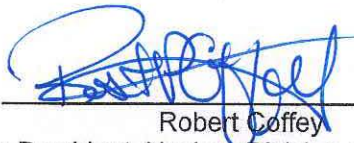
Approved By:



Russell Stottlemire  
Director, Nuclear Assurance and Assessment

4/21/22

Date



Robert Coffey  
Executive Vice President, Nuclear Division and Chief Nuclear Officer

April 22, 2022

Date

**NextEra Energy**  
**Quality Assurance Topical Report (FPL-3)**

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**NextEra Energy**  
**Quality Assurance Topical Report (FPL-3)**

## **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 at the shut-down Duane Arnold Energy Center (DAEC).

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. 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 plant. Portions of the Quality Assurance Program requirements are also applicable to quality related items and services. Those portions applicable to specific quality related items or services 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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**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 the DAEC. The following requirements apply to all organizations and positions that manage and perform activities within DAEC's scope. The organization is committed to implementing these requirements. Personnel engaged in supporting activities at the DAEC 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. The facility shall comply with the applicable Code of Federal Regulations, NRC 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 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.

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; fuel handling; 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 the 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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**A.1. Methodology (Continued)**

It is NextEra Energy's policy to assure 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 other regulatory or industry guidance that 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 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 the DAEC to compliance with ASME NQA-1, 1994, Basic Requirement 2. QATR revisions are reviewed by senior management and approved by the Director Nuclear Assurance & Assessment 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 the DAEC 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 the DAEC 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 de-commissioning activities. Requirements specific to procedures are also provided in Appendix B of this QATR.



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**A.2        Organization**

The organization structure responsible for implementation of the QAP is described below. The organizational structure includes corporate functions and onsite functions. Appendix E contains an organization chart depicting the organizational relationships for key management and functional groups. 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. 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.

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**Quality Assurance Topical Report (FPL-3)**

**A.2 Organization (Continued)**

In establishing its organizational structure, NextEra Energy commits the DAEC 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 the site, 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 and Assessment.

**A.2.1.2 Executive Vice President and 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, and responsibility for ensuring that defects and non-compliances are reported to the NRC as required by 10CFR21.

**A.2.1.2.a. Director Nuclear Assurance and Assessment**

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 Assurance Manager, to verify that purchased items comply with procurement documents.
- 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 the DAEC and immediately apprising senior management of significant problems affecting quality; and verifying implementation of solutions for significant conditions adverse to quality identified by Nuclear Assurance and Assessment.
- 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

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**A.2        Organization (Continued)**

**A.2.1.3    Additional Support Organizations**

Additional support organizational activities such as emergency preparedness, licensing, calibrations, procurement, security, training, legal, communications, records and document control, information technology, business operations, and human resources may be provided by the station or by corporate or contracted organizations.

**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 organization includes one or more individuals knowledgeable in the following fields: nuclear power plant systems; 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. Site procedures provide detailed organizational descriptions.

**A.2.2.1.a   Decommissioning Director**

This position reports to the CNO and is responsible for the safe activities at the plant. The Decommissioning Director has control of the onsite resources necessary for the safe activities and maintenance regardless of organizational reporting.

In this position, the Decommissioning Director assures that activities at the plant are within the constraints of applicable regulatory requirements and the QAP. Functional areas of responsibility also include chemistry activities, environmental services, fuel handling (movement, and storage), radiation protection, maintenance and work control, and related procedures and programs. The Onsite Review Group serves the Decommissioning Director in a technical capacity and provides review of plant safety and performance (see Appendix A).

**A.2.2.1.b   Licensing /Emergency Preparedness Manager**

This position reports to the Decommissioning Director and is responsible for site regulatory interfaces. This position is also responsible for maintaining and implementing the emergency plan for the station.

**A.2.2.1.c   Nuclear Assurance Manager**

This position reports to the Director Nuclear Assurance & Assessment (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.2        Organization (Continued)**

**A.2.2.1.d   Engineering Manager**

This position reports to the Decommissioning Director and has functional areas of responsibility that include authority for day-to-day engineering support activities, engineering administration, system engineering, and technical support.

**A.2.2.1.e   Security Manager**

This position reports to the Decommissioning Director and is responsible for implement of the site Security Plan.

**A.2.2.1.f   Operations Manager**

This position reports to the Decommissioning Director and is responsible for operating strategies that support nuclear and personal safety within the constraints of the decommissioning license and regulatory requirements.

**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 Assurance 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.

**NextEra Energy**  
**Quality Assurance Topical Report (FPL-3)**

**A.3 Responsibility (Continued)**

In addition, personnel responsibilities include:

- The responsibility to adhere to the plant's Technical Specifications and Certificates of Compliance associated with dry fuel storage.
- 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 the DAEC to compliance with NQA-1, 1994, Basic Requirement 1 and Supplement 1S-1.

**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 the DAEC to compliance with NQA-1, 1994, Basic Requirement 1 and Supplement 1S-1.

**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, indoctrination and training programs are maintained for personnel performing, verifying or managing activities within the scope of the QAP to assure that suitable proficiency is achieved and maintained. Site and support staff minimum qualification requirements are as delineated in Appendix G. Other qualification requirements may be established but will not reduce those required by Appendix G. 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.

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

The Certified Fuel Handler training program ensures that the qualifications of fuel handlers are commensurate with the tasks to be performed and the conditions requiring response. The requirements of 10 CFR 50.120, "Training and Qualification of Nuclear Power Plant Personnel" requires training programs to be derived using a systems approach to training (SAT) as defined in 10 CFR 55.4. Although the requirements of 10 CFR 50.120 apply to holders of an operating license issued under Part 50, and the DAEC license no longer authorizes operation, the Certified Fuel Handler training program will, nonetheless, align with those requirements. Records of personnel training and qualification are maintained in accordance with procedures.

In establishing qualification and training programs, NextEra Energy commits the DAEC 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.
- 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 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.
- 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 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.

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

- 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 15 months.

**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 the DAEC to compliance with NQA-1, 1994, Basic Requirements 15 and 16, and Supplement 15S-1.

**A.7 Regulatory Commitments**

**A.7.1**

Through this QATR, NextEra Energy commits the DAEC 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"

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

- General Design Criterion 1, of Appendix A to 10CFR Part 50
- 10CFR50.55a, “Codes and Standards”
- 10 CFR 73, “Physical Protection of Plants and Materials”

**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 Appendix G.
- 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) – NextEra Energy Duane Arnold 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. See the specific exceptions to 2S-1 and 2A-1 contained in Section A.5 of this QATR.



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

- Safety/Regulatory Guide 1.29, “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 the UFSAR, and in other docketed analysis.
- 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 1.37, 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.

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

- 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 the DAEC 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 the DAEC 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.
- 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.

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

- 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 the DAEC 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 are addressed in the UFSAR.
- 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 addressed in the UFSAR.

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

- 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 addressed in the UFSAR or License commitments.
- Regulatory Guide 1.164, Revision 0, June 2017, "Dedication of Commercial-Grade Items for Use in Nuclear Power Plants" - Regulatory Guide 1.164 endorses, in part, the Electric Power Research Institute (EPRI) 3002002982, Revision 1 to EPRI NP-5652 and TR-102260, "Plant Engineering: Guideline for the Acceptance of Commercial-Grade Items in Nuclear Safety-Related Applications", with respect to acceptance of commercial-grade items and services to be used as basic components for nuclear power plants. NextEra Energy commits to utilizing the EPRI Guidance 3002002982, as endorsed in part by this Regulatory Guide 1.164, as a basis for our acceptance of commercial grade items to be used in Nuclear Safety-Related applications. Utilizing Regulatory Guide 1.164 and EPRI 3002002982 Guidance, subject to the exceptions or clarifications provided in the Regulatory Guide 1.164, will provide adequate basis for performing dedication as defined in 10 CFR Part 21, and fulfillment of our quality assurance requirement of Procurement Control.
- 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 the DAEC 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.
- 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.

**A.8 Other General Guidance Documents**

- NUREG/CR-6407, "Classification of Transportation Packaging and Dry Spent Fuel Storage System Components According to Importance to Safety (2/96)".

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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, maintenance, and modifications. 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 the DAEC 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 the DAEC 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 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 the DAEC to Position C.3.2 of Regulatory Guide 1.28, Revision 3, for auditing and evaluation of suppliers, with an option to take exception for position C.3.2.2, where 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 the DAEC are not required to be evaluated or audited. A grace period of 25 percent of the audit interval 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 45 months and not exceed 3.25 times the specified interval for any three consecutive inspections or audits.
- 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 the DAEC 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 encompasses ANSI/ISO/IEC 17025:2005, (or ANSI/ISO/IEC 17025:2017), "General Requirements for the Competence of Testing and Calibration Laboratories".
  2. The accreditation body is recognized by the ILAC (International Laboratory Accreditation Cooperation) via a MRA (Mutual Recognition Agreement).
  3. The published scope of the accreditation for the calibration laboratory covers the needed measurement parameters, ranges, and uncertainties.
  4. For procurement of testing services, the published scope of accreditation for the test laboratory covers the needed testing services including test methodology and tolerances/uncertainty.
- 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/testing services from laboratories accredited by a domestic or international calibration and testing laboratory accredited by an ILAC MRA signatory, the accreditation process may be used in lieu of performing a commercial grade survey as part of the commercial grade dedication process. 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:
  - 1) A review of the Supplier Accreditation is performed and includes verification of the following:
    - (a) The accreditation is to ANSI/ISO/IEC 17025:2005, (or ANSI/ISO/IEC 17025:2017), "General Requirements for the Competence of Testing and Calibration Laboratories."
    - (b) The accrediting body is recognized by the ILAC (International Laboratory Accreditation Cooperation) via a MRA (Mutual Recognition Agreement).



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

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

- (c) For procurement of calibration services, the published scope of accreditation for the calibration laboratory covers the needed measurement parameters, ranges, and uncertainties.
  - (d) For procurement of testing services, the published scope of accreditation for the test laboratory covers the needed testing services including test methodology and tolerances/uncertainty.
- 2) Purchase order documents shall require:
- (a) The service must be provided in accordance with the supplier's accredited ISO/IEC 17025:2005 (or ANSI/ISO/IEC 17025:2017) program and scope of accreditation.
  - (b) As-Found calibration data must be reported in the certificate of calibration when calibrated items are found to be out-of-tolerance (for calibration services only).
  - (c) Equipment/standards used to perform the calibration must be identified in the certificate of calibration (for calibration services only).
  - (d) The calibration/testing laboratory to notify the DAEC of any condition that adversely impacts the laboratory's ability to maintain the scope of accreditation.
  - (e) Any additional technical and quality requirements, as necessary, based upon a review of the procured scope of services, which may include, but are not necessarily limited to, tolerances, accuracies, ranges, and industry standards.
- 3) The receipt inspection shall validate the laboratory's document/certificate that:
- (a) Certification that the calibration or test service has been performed in accordance with the ISO/IEC 17025:2005 program and that the test/calibration has been performed within their scope of accreditation and all purchase order requirements have been met.
- 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 EPRI 3002002982 and Regulatory Guide 1.164 to procure Commercial Grade Items will be used in lieu of these requirements.

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

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

- The methodology for use of accreditation in lieu of commercial grade surveys for laboratory calibration and test services is defined in the Nuclear Energy Institute document NEI 14-05A and acknowledged by the NRC in RIS 2016-01 as acceptable for use by all holders of operating license under Title 10 of the Code of Federal Regulations (10 CFR) Part 50. Requirements for applying this methodology are defined in RIS 2016-01. Additionally, the NRC provided provisional acceptance of ISO/IEC 17025:2017 applicable during the transition period set to expire on November 30, 2020 to allow accredited laboratories to transition from the current 2005 edition as provided by ISO. The use of ISO/IEC 17025:2017 beyond the transition period requires NRC acceptance of the next revision to NEI 14-05A supporting this edition (ADAMS Accession Number ML19056A451 dated April 16, 2019 to Nuclear Energy Institute).
- 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 ILAC 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.

**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 the DAEC 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 the DAEC 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 the DAEC to compliance with NQA-1, 1994, Basic Requirement 13 and Supplement 13S-1. NextEra Energy also commits the DAEC 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 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 the DAEC 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.
- 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, and that plant systems can be operated safely and as designed. These programs include criteria for determining when testing is required, such as proof tests before installation, pre-operational tests, post-maintenance tests, and post-modification tests 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 the DAEC 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 plant system 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.
- 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.

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

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

- 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 the DAEC 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, the DAEC 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 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 the DAEC to compliance with NQA-1, 1994, Basic Requirement 14.

**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 the DAEC 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.

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

**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. 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 the DAEC 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 the DAEC to compliance with the requirements of Subparts 2.5 and 2.8 for establishing appropriate inspection requirements.

**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.

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

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

**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 plant system 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 Decommissioning Director. 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, 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. The 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.

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. Procedures which implement the emergency plan are exercised on the simulator or reviewed at least once every two years and revised as appropriate.

Site managers 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.



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

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

Procedures required by Appendix G shall be approved by the Decommissioning Director 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 Decommissioning Director.

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 be a Certified Fuel Handler. 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 the DAEC to compliance with NQA-1, 1994, Basic Requirement 6 and Supplement 6S-1.

**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. In establishing measures for the retention of security records, NextEra Energy commits the DAEC to compliance with NQA-1 1994, Basic Requirement 17 and Supplement 17S-1, as well as the applicable portions of 10 CFR 73 established via 10 CFR 73.55 (q) and 10 CFR 73.70.

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. 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.

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

**B.15 Records (Continued)**

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

-Attachment 1 to RIS 2000-18 states that the 1988 versions of the NIRMA Technical Guidelines, TG-11, TG15, TG-16, AND TG-21, when implemented together, provide an acceptable basis for complying with the record keeping requirements of 10 CFR Part 31, Part 32, Part 34, Part 40, Appendix B to 10 CFR Part 50, Part 60, Part 70, Part 71, Part 72, or Part 76. For the management of electronic records as outlined in these guidelines, NextEra Energy complies with the 2011 versions.

In establishing provisions for records, NextEra Energy commits the DAEC 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.

**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 the DAEC 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.

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

**B.16 Plant Maintenance (Continued)**

- 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 the DAEC 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 Assurance 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 DAEC maintains an 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 this committee.

Independent reviews are periodically performed of matters involving the safe activities for the plant, with a minimum of one such review being conducted 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 activities. 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 the DAEC 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.

**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

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**C. ASSESSMENT (CONTINUED)**

**C.2 Self-Assessment (Continued)**

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 performance and confirm that activities affecting quality comply with the QAP and that the QAP is effectively implemented. The organization performing independent assessment (Nuclear Assurance) 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 Appendix G requirements. Independent assessments are then conducted using these predetermined criteria.

An independent biennial assessment includes 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 Assurance conducts timely follow-up action, including re-assessment of deficient areas, as necessary, to establish adequacy of corrective actions.

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

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

Independent Assessments of Non-Regulatory topics are audited in accordance with site implementing procedures. Regulatory Topics, as listed in Table 1, 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.

**Table 1**  
**Regulatory Topics Subject to Independent Assessment**

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

1. Topic titles in this table 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 Decommissioning Director 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.

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 Decommissioning Director and detailed in implementing procedures. All members are qualified in accordance with implementing procedure requirements that meet Appendix G. Membership includes representation from at least the following disciplines: Operations, Maintenance, Engineering and Radiation Protection / 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 Decommissioning Director 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).
- (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 the 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 Decommissioning Director.
- (8) Events reportable in writing to the NRC according to applicable regulations.
- (9) Reports of significant 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 Decommissioning Director , selected by ORG members, or referred to the ORG by other site or corporate organizations.

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.



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

**5.0 Authority**

The ORG:

- Recommends in writing to the Decommissioning Director 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 Decommissioning Director of any disagreements between the ORG and the Decommissioning Director.

The ORG shall advise the Decommissioning Director 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 off-site management position(s) above the Decommissioning Director, 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 the DAEC to use Appendix A of Regulatory Guide 1.33 as guidance for establishing the types of procedures that are necessary to control and support site activities. 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.

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 the 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 accountability of fuel. Procedures are also provided 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; designation of proper tools, proper conditions for spent fuel movement, and proper conditions for fuel cask loading and movement. These procedures provide requirements for proper sequence, orientation and seating of fuel and components, rules for minimum operable instrumentation, actions for response to fuel damage, 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).

**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.

**System Procedures:** Contain instructions for energizing, filling, venting, draining, starting up, shutting down, 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.

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**Appendix B: Procedures (Continued)**

While not specifically a procedure type, **Temporary Procedures** may be used to direct operations during testing, 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.

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

**Operating Activities:** Work functions associated with 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, 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.

**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.

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**Appendix C: Definitions (Continued)**

**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.
2. Fire protection equipment, systems and features:
  - (a) that reasonable prevent fires from occurring that could result in a radiological hazard
  - (b) that rapidly detect, control, and extinguish those fires that do occur and that could result in a radiological hazard; and
  - (c) that ensure the risk of fire-induced radiological hazards to the public, environment and plant personnel is minimized.

The above definition addresses the minimum scope of Fire Protection Equipment that is classified as Quality Related.
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

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**Appendix C: Definitions (Continued)**

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.

**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: Administrative Controls**

**1.0 Fire Protection**

10 CFR 50.48(f) requires that licensees that have submitted the certification required under 50.82(a)(1) shall maintain a fire protection program to address the potential for fires that could cause the release or spread of radioactive materials. The Quality assurance program established for these fire protection SSCs ensures that design, procurement, instruction, procedures drawings, inspection, installation, testing, maintenance, operations, nonconforming items, corrective action, records, audits and administrative controls meet the applicable quality assurance guidelines as described in CMEB 9.5.1, Revision 2, Position C.4, "Quality Assurance Program" during decommissioning and permanent shutdown. Additionally, NRC Regulatory Guide 1.191 (May 2001) "Fire Protection Program for Nuclear Power Plants during Decommissioning and Permanent Shutdown" is used as guidance to implement 10 CFR 50.48(f). Engineering determines what fire protection SSCs are required to prevent fires, rapidly detect, control, and extinguish fires that do occur and could result in a radiological hazard and, minimize the risk to the public, environment, and plant personnel resulting from fires that could result in a release of radioactive materials. Engineering also establishes the requirements for the design, procurement, fabrication, installation and/or modification of these fire protection SSCs. All other fire protection equipment and supplies will be of commercial quality, in accordance with National Fire Protection Association (NFPA) guidelines.

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**Appendix E: Revision Summaries**

<b>Revisions 0</b>	
<b>Change/Reason for Change</b>	<b>Basis for Meeting 10 CFR 50</b>
<ul style="list-style-type: none"> <li>New Program</li> </ul>	<ul style="list-style-type: none"> <li>NRC SE Dated</li> </ul>
<b>Revision 1 (December 03, 2020)</b>	
<b>Change/Reason for Change</b>	<b>Basis for Meeting 10 CFR 50</b>
<p>1. Update the QATR to reflect the organizational structure following fleet organizational announcements.</p> <p>2. Remove CEO signature from the Policy statement page per the CEO request.</p> <p>3. Update with FPL-1 changes performed since revision that was used to create FPL-3: • Update to commitment for commercial grade dedication (QR-058)</p> <ul style="list-style-type: none"> <li>• Update guidance on Electronically Managing QA Records (QR-059)</li> <li>• Adoption of a standard criterion for audit interval maximum extension of 25% of the audit</li> <li>• interval and state the timeframe in months that shall not be exceeded. (QR-060)</li> <li>• Revise reporting relationship to CNO &amp; responsibilities (QR-061)</li> </ul>	<p>The changes do not degrade the effectiveness of the quality program and are not considered a reduction in commitment per NA-AA-210-1000, Attachment 1, <i>QA Program Changes That Are Not Considered Reduction In Commitments</i>.</p> <p><b>1. Update the QATR to reflect the organizational structure following fleet organizational announcements.</b></p> <p>The use of generic organizational charts to indicate functional relationships, authorities, and responsibilities, or, alternately, the use of descriptive text. (paragraph iv)</p> <p><b>2. Remove CEO signature from the Policy statement page per the CEO request.</b></p> <p>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).</p> <p><b>3. Update with FPL-1 changes performed since revision that was used to create FPL-3:</b></p> <p>The following excerpts are from the individual 50.54(a) completed for the changes previously evaluated containing the justification for each change.</p>

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	<p><b>Update to commitment for commercial grade dedication (QR-058)</b>  Change/Reason for Change:  This revision has been prepared to update references to commercial grade dedication utilizing NA-AA-210-1000, Quality Assurance Program Administration, Attachment 1, "QA Program Changes that are not Considered Reduction in Commitment," based on Regulatory Guide 1.164. Remove reference to EPRI NP-5652 and update with EPRI 3002002982.</p> <p>Basis for Meeting 10 CFR 50.1  This change was evaluated in accordance with 10 CFR 50.54(a) requirements. The change is allowing the use of a QA standard approved by the NRC which is more recent than the QA standard in NextEra Energy's current QA program at the time of the change.</p> <p>(paragraph i)  This change is not considered a reduction in commitment based on the guidance in NA-AA-210-1000, Attachment 1, Step i., and the following:</p> <ul style="list-style-type: none"> <li>• EPRI 3002002982 provided revision to EPRI NP5652 and reference Generic Letter 89-02 and 91-05.</li> <li>• Regulatory Guide 1.164 endorses, in part, the EPRI 3002002982, Revision 1 to EPRI NP-5652 and TR-102260, "Plant Engineering: Guideline for the Acceptance of Commercial-Grade Items in Nuclear Safety-Related Applications," with respect to acceptance of commercial-grade dedication of items and service to be used as basic components for nuclear power plants.</li> <li>• Regulatory Guide 1.164 documents that EPRI 3002002982 is acceptable to the NRC staff in providing an adequate basis for dedication as defined in 10 CFR Part 21, and fulfills the QA requirement in Appendix B of 10 CFR Part 50, subject to the exceptions or clarifications provided in Regulatory Guide.</li> <li>• <b>Update guidance on Electronically Managing QA Records (QR-059)</b></li> </ul> <p>Change/Reason for Change:  This revision requests the ability to comply to NRC approved guidance using a later revision than what is currently identified in RIS-200-18, Guidance on Managing Quality Assurance Records in Electronic Media.</p>
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	<p>Basis for Meeting 10 CFR 50:  This change was evaluated in accordance with 10 CFR 50.54(a) requirements  The change is requesting an exception be added to the QATR, Revision 22, Section B.15 to reference the 2011 Nuclear Information and Records Management Association (NIRMA) technical guides as follows:  TG 11-2011, Authentication of Records and Media,  TG 15-2001, Management of Electronic Records,  TG 16-2011, Software Quality Assurance Documentation and Records,  TG 21-2011, Required Records Protection, Disaster Recovery and Business Continuation.  This change was reviewed and approved by the NRC's in a response to Duke Energy's submittal letter (ADAMS – Accession No. ML14300A011, dated October 23, 2014) requesting a safety evaluation of the QATR amendment.  The NRC evaluated the submittal and concluded "the newer 2011 version of the NIRMA technical guides provide additional implementing details that continue to meet the quality assurance record requirements contained in 10CFR 50 Appendix B, Criterion XVII." (ADAMS Accession No. ML15099A561, dated May 11, 2015)  Bases on the above, the change described does not result in a reduction of any QA Program commitment as a result of the following:  The use of a QA Standard approved by the NRC which is more recent than the QA standard in NextEra Energy's current QA program at the time of the change. (paragraph i)  <b>• Adoption of a standard criterion for audit interval maximum extension of 25% of the audit interval and state the timeframe in months that shall not be exceeded. (QR-060)</b></p> <p>Change/Reason for Change:  The changes incorporated within this revision include the following:  Adopt a standard criterion for audit interval maximum extension of 25% of the audit interval and state the timeframe in months that shall not be exceeded.  Basis for Meeting 10 CFR 50:</p>
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	<p>This change was evaluated in accordance with 10 CFR 50.54 (a) requirements. The change is requesting adoption of standard industry criteria for maximum audit extensions.</p> <p>The maximum extension of 25 percent of audit intervals is consistent with similar criteria approved by the NRC for multiple nuclear utilities, including but not limited to Southern Nuclear, Exelon, and First Energy. The NRC staff previously approved similar audit extension provisions siting that the revised program conforms to the acceptance criteria of NUREG-0800, sections 17.2, and continues to satisfy the quality assurance requirement of Appendix B to 10 CFR Part 50 and are therefore acceptable.</p> <ul style="list-style-type: none"> <li>• U.S. NRC Letter with Safety Evaluation to Southern Nuclear Operating Company, Inc, ADAMS Accession No. ML051570349</li> <li>• U.S. NRC letter to Rochester Gas and Electric, "Approve or Proposed Revisions to the RG&amp;E Corporation's RE Ginna Nuclear Power Plant Quality Assurance Program for Station Operation," July 22, 1998. ADAMS Accession No ML101820108.</li> </ul> <p>The proposed QATR changes described are in compliance with 10CFR50, Appendix B. The changes do not degrade the effectiveness of the audits performed under the NEE Quality Assurance Program and is not considered a reduction in commitment due to:</p> <p>The use of a QA standard approved by the NRC which is more recent than the QA standard in NextEra Energy's current QA Program at the time of the change." (per NA-AA-210-1000, Attachment 1 paragraph i)</p> <p><b>Revise reporting relationship to CNO &amp; responsibilities (QR-061)</b>  Change/Reason for Change:  This revision has been prepared to reflect the organizational structure following a fleet organizational announcement.  Basis for Meeting 10 CFR 50:  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</p>
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	<p>independence from cost and schedule le when opposed to safety considerations.</p> <p>This change is not considered a reduction in commitment based on the following guidance in NA-AA-210-1000, Attachment 1:</p> <p>iii. The use of generic organizational position titles that clearly denote the position function, supplemented as necessary by descriptive text, rather than specific titles.</p> <p>iv. The use of generic organizational charts to indicate functional relationships, authorities, and responsibilities, or, alternately, the use of descriptive text.</p>
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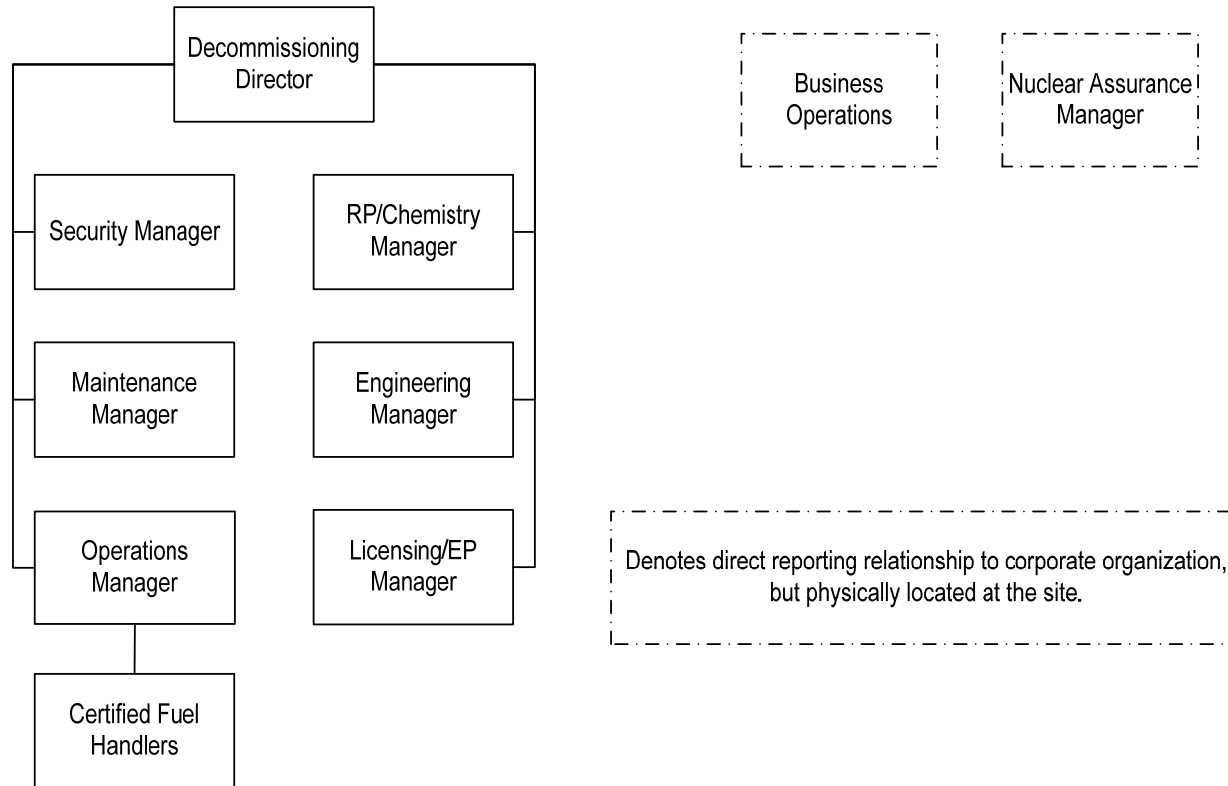
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Revision 2 (April 21, 2022)	
Change/Reason for Change	Basis for Meeting 10 CFR 50
<p><b>QRDC-003:</b>  NRC-issued Amendment No. 315 requires the relocation of certain administrative controls from the DAEC Technical Specifications to the DAEC Quality Assurance Topical Report (FPL-3). It is proposed that the information be added as a new appendix - Appendix G.</p> <p>Correspondingly, references to plant Technical Specifications on pages 12, 15, 32, 36 and 38 should be replaced with "Appendix G".</p> <p>Additionally, "Appendix E: Revision Summaries" was edited to reflect the changes being incorporated via this QRDC.</p> <p>Impacted Sections A.5, A.7.3, B.14, C.3, App A Section 2.0, App E, and App G (New).</p> <p>These steps were necessary to implement the relocation of administrative requirements as prescribed by DAEC License Amendment 315.</p>	<p>This change created FPL-3 Appendix G. The new appendix provides a repository of administrative requirements formerly retained with the plant Duane Arnold Technical Specifications but relocated to FPL as specifically approved in NRC License Amendment 315 dated January 1, 2022. The revision also involved several minor changes in nomenclature (e.g., changed references to Technical Specifications to references to Appendix G, and references to the "plant manager" to an alternate title, each change made was expressly authorized in Amendment 315.</p> <p>This revision involved no reduction in commitment as it only adds requirements to the QAPD and those added requirements were specifically approved for addition to the DAEC QAPD in a License Amendment.</p>

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Appendix F: Organization Chart

ORGANIZATION RELATIONSHIPS OF KEY MANAGEMENT & FUNCTIONAL GROUPS  
(SITE)





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**Appendix G: General Administrative Controls**

**Responsibility**

The manager responsible for overall operational activities shall be responsible for overall facility operation and shall delegate in writing the succession to this responsibility during his absence.

The manager responsible for overall operational activities or his designee shall approve, prior to implementation, each proposed test, experiment or modification to systems or equipment that affect safe storage and maintenance of spent nuclear fuel.

**Organization**

Onsite and offsite organizations shall be established for facility staff and corporate management, respectively. The onsite and offsite organizations shall include the positions for activities affecting safety of the nuclear fuel.

- a. Lines of authority, responsibility, and communication shall be defined and established throughout highest management levels, intermediate levels, and all facility organization positions. These relationships shall be documented and updated, as appropriate, in organizational descriptions. These organizational descriptions shall be documented in the UFSAR or QA Program Description;
- b. The manager responsible for overall operational activities shall be responsible for overall safe operation of the facility and shall have control over those onsite activities necessary for safe storage and maintenance of spent nuclear fuel;
- c. The corporate officer shall have responsibility for the overall facility safety and shall take measures needed to ensure acceptable performance of the staff in operating, maintaining, and providing technical support to the facility to ensure safe management of spent nuclear fuel.
- d. The individuals who carry out health physics, or perform quality assurance functions may report to the appropriate onsite manager; however, these individuals shall have sufficient organizational freedom to ensure their ability to perform their assigned functions.

**Qualifications**

Each member of the facility staff shall meet or exceed the minimum qualifications referenced for comparable positions in ANSI/ANS 3.1-1978. The radiation protection manager shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975.

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**Appendix G: General Administrative Controls (Continued)**

**Procedures**

Written procedures shall be established, implemented, and maintained covering the following activities:

- a. The applicable procedures recommended in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978;
- b. The emergency operating procedures required to implement the requirements of NUREG-0737 and to NUREG-0737, Supplement 1, as stated in Generic Letter 82-33;
- c. Quality assurance for effluent and environmental monitoring;
- d. All programs specified in "Programs and Manuals" below.

**Programs and Manuals**

The following programs shall be established, implemented and maintained:

**Offsite Dose Assessment Manual (ODAM)**

- a. The ODA shall contain the methodology and parameters used in the calculation of offsite doses resulting from radioactive gaseous and liquid effluents, in the calculation of gaseous and liquid effluent monitoring alarm and trip setpoints, and in the conduct of the radiological environmental monitoring program; and
- b. The ODA shall also contain the radioactive effluent controls and radiological environmental monitoring activities and descriptions of the information that should be included in the Annual Radiological Environmental Operating Report and Radioactive Material Release Report required by "Reporting Requirements" below, and Technical Specification 5.6.3.
- c. Licensee initiated changes to the ODA:
  1. Shall be documented and records of reviews performed shall be retained. This documentation shall contain:
    - a. Sufficient information to support the change(s) together with the appropriate analyses or evaluations justifying the change(s), and
    - b. A determination that the change(s) maintain the levels of radioactive effluent control required by 10 CFR 20.1302, 40 CFR 190, 10 CFR 50.36a, and 10 CFR 50, Appendix I, and not adversely impact the accuracy or reliability of effluent dose or setpoint calculations;
  2. Shall become effective after the approval of the plant manager; and

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**Appendix G: General Administrative Controls (Continued)**

3. Shall be submitted to the NRC in the form of a complete, legible copy of the entire ODAM as a part of or concurrent with the Radioactive Material Release Report for the period of the report in which any change in the ODAM was made. Each change shall be identified by markings in the margins of the affected pages, clearly indicating the area of the page that was changed, and shall indicate the date (i.e., month and year) the change was implemented.

**Radioactive Effluent Controls Program**

This program, conforming to 10 CFR 50.36a, provides for the control of radioactive effluents and for maintaining the doses to members of the public from radioactive effluents as low as reasonably achievable. The program shall be contained in the ODAM, shall be implemented by procedures, and shall include remedial actions to be taken whenever the program limits are exceeded. The program shall include the following elements:

- a. Limitations on the functional capability of radioactive liquid and gaseous monitoring instrumentation including surveillance tests and setpoint determination in accordance with the methodology in the ODAM;
- b. Limitations on the concentrations of radioactive material released in liquid effluents from the site to unrestricted areas, conforming to ten times (10x) the concentrations listed in Appendix B, Table 2, Column 2 to 10 CFR 20.1001 – 20.2402;
- c. Monitoring, sampling, and analysis of radioactive liquid and gaseous effluents pursuant to 10 CFR 20.1302 and with the methodology and parameters in the ODAM;
- d. Limitations on the annual and quarterly doses or dose commitment to a member of the public from radioactive materials in liquid effluents released to unrestricted areas, conforming to 10 CFR 50, Appendix I;
- e. Determination of cumulative and projected dose contributions from radioactive effluents for the current calendar quarter and current calendar year in accordance with the methodology and parameters in the ODAM at least every 31 days;
- f. Limitations on the functional capability and use of the liquid and gaseous effluent treatment systems to ensure that the appropriate portions of these systems which were used to establish compliance with the design objectives in 10 CFR 50, Appendix I, Section II be used when specified to provide reasonable assurance that releases of radioactive material in liquid and gaseous effluents be kept as low as reasonably achievable;
- g. Limitations on the dose rate resulting from radioactive material released in gaseous effluents from the site to areas at or beyond the site boundary shall be limited to the following:
  - For tritium, and for all radionuclides in particulate form with half lives > 8 days: less than or equal to a dose rate of 1500 mrem/yr to any organ;

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**Appendix G: General Administrative Controls (Continued)**

- h. Limitations on the annual and quarterly doses to a member of the public from tritium, and all radionuclides in particulate form with half lives > 8 days in gaseous effluents released to areas beyond the site boundary, conforming to 10 CFR 50, Appendix I; and
- i. Limitations on the annual dose or dose commitment to any member of the public, beyond the site boundary, due to releases of radioactivity and to radiation from uranium fuel cycle sources, conforming to 40 CFR 190.

**Reporting Requirements**

**Annual Radiological Environmental Operating Report**

The Annual Radiological Environmental Operating Report covering the operation of the facility during the previous calendar year shall be submitted by May 15 of each year. The report shall include summaries, interpretations, and analyses of trends of the results of the Radiological Environmental Monitoring Program for the reporting period. The material provided shall be consistent with the objectives outlined in the Offsite Dose Assessment Manual (ODAM), and in 10 CFR 50, Appendix I, Sections IV.B.2, IV.B.3, and IV.C.

The Annual Radiological Environmental Operating Report shall include the results of analyses of all radiological environmental samples and of all environmental radiation measurements taken during the period pursuant to the locations specified in the table and figures in the ODA, as well as summarized and tabulated results of these analyses and measurements in the format of the table in Regulatory Guide 4.8. In the event that some individual results are not available for inclusion with the report, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted in a supplementary report as soon as possible.