NEXTera ENERGY
DUANE ARNOLD

April 26, 2022

NG-22-0050
10 CFR 50.90
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U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Duane Arnold Energy Center
Docket No. 50-331
Renewed Op. License No. DPR-49

Subject: Revised Response to Request for Additional Information Relating to Decommissioning Quality Assurance Program, Revision 0 (EPID L-2021-LLN-0003)

References:

1. P. Hansen (NextEra Energy Duane Arnold, LLC) to USNRC, "Request for Approval of NextEra Energy Duane Arnold, LLC's Decommissioning Quality Assurance Program Revision 0," dated July 30, 2021 (ML21214A125)

2. USNRC to B. Coffey (Florida Power & Light Company), "Duane Arnold Energy Center – Request for Additional Information Regarding the Decommissioning Quality Assurance Program, Revision 0 (EPID: L-2021-LLN-0003)," dated March 22, 2022 (ML22080A182)

3. P. Hansen (NextEra Energy Duane Arnold, LLC) to USNRC, "Response to Request for Additional Information Relating to Decommissioning Quality Assurance Program, Revision 0 (EPID L-2021-LLN-0003)" dated April 13, 2022 (ML22103A056)

NextEra Energy Duane Arnold, LLC (NEDA) submitted a proposed Decommissioning Quality Assurance Program (DQAP) Revision 0 for the Duane Arnold Energy Center (DAEC) (Reference 1). Subsequently, the NRC Staff requested additional information regarding that application (Reference 2). NEDA provided the requested information in Reference 3. This letter provides a revised response, which replaces Reference 3 in its entirety.

This letter contains no new or revised regulatory commitments.

If you have any questions regarding this matter, please contact Mike Davis, Licensing Manager at (319) 851-7032.

Paul Hansen
Decommissioning Director, Duane Arnold Energy Center
NextEra Energy Duane Arnold, LLC

Enclosure

cc: Regional Administrator, USNRC, Region III
Inspector, USNRC, Duane Arnold Energy Center
Project Manager, USNRC, Duane Arnold Energy Center

ENCLOSURE TO NG-22-0050

NEXTERA ENERGY DUANE ARNOLD, LLC

DUANE ARNOLD ENERGY CENTER

Revised Response to Request for Additional Information Relating to Decommissioning Quality Assurance Program, Revision 0

4 pages follow

REQUEST FOR ADDITIONAL INFORMATION

DECOMMISSIONING QUALITY ASSURANCE PROGRAM, REVISION 0

NEXTERA ENERGY DUANE ARNOLD, LLC

DUANE ARNOLD ENERGY CENTER

DOCKET NO. 50-331

By letter dated July 30, 2021 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML21214A125), NextEra Energy Duane Arnold, LLC (NEDA, the licensee) submitted to the U.S. Nuclear Regulatory Commission (NRC) a request for approval of the Decommissioning Quality Assurance Program (DQAP), Revision 0, for the Duane Arnold Energy Center (DAEC). The proposed DQAP is based on the NRC-approved Duane Arnold Quality Assurance Topical Report (QATP) FPL-3. The QATP FPL-3 will no longer be effective at Duane Arnold following approval and implementation of the DAEC DQAP.

The following information is needed to complete the NRC staff's technical review. Specifically, the following requests for additional information (RAIs) will facilitate the technical review being conducted by the Division of Reactor Oversight, Quality Assurance and Vendor Inspection Branch staff. Timely and accurate response to these RAIs is requested.

RAI-1

Criterion I, "Organization," of Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, "Domestic Licensing of Production and Utilization Facilities," states, in part, that "the authority and duties of persons and organizations performing activities affecting the safety-related functions of structures, systems, and components (SSCs) shall be clearly established and delineated in writing. These activities include both the performing functions attaining quality objectives and the quality assurance functions. The quality assurance functions are those of: (1) assuring that an appropriate quality assurance program is established and effectively executed; and (2) verifying, such as by checking, auditing, and inspecting, that activities affecting the safety-related functions have been correctly performed."

In Section 1.0, "Organization," of the proposed DAEC DQAP, the Nuclear Assurance Manager (Quality Assurance (QA) Manager) functions and responsibilities have been removed from the site organization to the corporate organization. In the Table of Changes, NEDA states that "after all fuel has been transferred to dry storage, activities at the site that would fall under the requirements of the DQAP will be infrequent. The decrease in these types of activities will no longer necessitate the continuous on-site presence of Nuclear Assurance. The corporate Nuclear Assurance organization will be able to provide the necessary oversight of the site's quality assurance program." However, in Section 1.3, "Station Management," of the proposed DAEC DQAP there is no mention of the Nuclear Assurance Manager or QA Manager and his/her functions and responsibilities. Therefore, NEDA is requested to provide details of the Nuclear Assurance Manager or QA Manager, his/her functions and responsibilities, and how these functions and responsibilities will still be accomplished when this position is no longer a site position.

In addition, the NRC-approved DAEC QATR FPL-3, Revision 0, delineates site positions responsible for functional areas such as security, maintenance, operations, fuel handling, radiation protection, chemistry, engineering, licensing, and emergency preparedness. However, Section 1.0 of the proposed DAEC DQAP did not mention any positions that are responsible for these functional areas. Therefore, NEDA is requested to provide details of these functional areas and the corresponding positions that are responsible for these functional areas.

DAEC Response

As outlined in Section 1.2.1, the management position responsible for Nuclear Oversight for the Duane Arnold Energy Center resides at the Corporate Office. This position serves the function of the site Nuclear Oversight Manager, and is responsible for managing and performing audits. When on-site audits are required, they will be performed by corporate Nuclear Oversight staff.

Section 1.3, "Station Management," has been updated in Attachment 1 to include the following:

> *"The following DAEC decommissioning facility management positions and associated DQAP functional responsibilities may be delegated to others as established in this document."*

Additionally, Section 1.3.1 has been updated in Attachment 1 to include the following:

"Three (3) management positions reporting to the Decommissioning Director have individually assigned responsibilities for the following:

- *Implementation of the site's Physical Security Plan*
- *ALARA planning*
- *Chemistry and environmental activities*
- *Engineering support activities, development and maintenance of engineering programs, policies, procedures and providing engineering services in accordance with the DQAP*
- *Document control and records management*
- *Maintaining an interface between the station and federal and state regulators*
- *Emergency Preparedness*
- *Corrective Action Program*
- *Maintenance and modification activities*

The following responsibility may be included in the decommissioning facility management or in the corporate organization:

- *Coordination, evaluation, and procurement of materials for the decommissioning facility."*

RAI-2

In Section 7.0, "Control of Purchased Material, Equipment and Services," of the proposed DAEC DQAP, multiple references were made to the standard International Standard Organization (ISO)/International Electrotechnical Commission (IEC)-17025, "General Requirements for the

Competence of Testing and Calibration Laboratories," for the purpose of procuring commercial grade calibration and testing services from domestic and international laboratories.

In an NRC safety evaluation dated February 2015 (see ADAMS Accession No. ML14322A535), the NRC staff concluded that Revision 0 of NEI 14-05A, "Guidelines for the Use of Accreditation in Lieu of Commercial Grade Surveys for Procurement of Laboratory Calibration and Test Services," provided an acceptable approach for licensees and suppliers of basic components for using the International Laboratory Accreditation Conference (ILAC) accreditation process in lieu of performing surveys as part of the commercial-grade dedication process. This approach addressed procurement of calibration and testing services performed by domestic and international laboratories that are accredited to ISO/IEC-17025:2005 by Accreditation Bodies (ABs) that are signatories to the ILAC Mutual Recognition Arrangement (MRA).

In a letter dated April 16, 2019 (ADAMS Accession No. ML19056A451), the NRC staff concluded that the 2017 edition of the ISO/IEC-17025 maintains the same technical and quality requirements as the 2005 edition of ISO/IEC-17025. It was also noted in this letter that the NRC's acceptance of ISO/IEC- 17025:2017 would only be applicable during the 3-year transition period, which began on November 30, 2017, and expired on November 30, 2020, with the expectation that the industry would seek recognition of the 2017 edition of ISO/IEC-17025 beyond the transition period through a revision of NEI 14-05A. Due to the travel restrictions resulting from the Coronavirus pandemic in 2019, in a letter dated November 20, 2020 (ADAMS Accession No. ML20325A192), the NRC extended its recognition of the 2017 edition of ISO/IEC-17025 from November 30, 2020, to June 1, 2021.

In an NRC safety evaluation dated November 23, 2020 (ADAMS Accession No. ML20322A019), the NRC staff concluded that Revision 1 of NEI 14-05A, which references ISO/IEC-17025:2017, continues to provide an acceptable approach for licensees and suppliers subject to the QA requirements of Appendix B to 10 CFR Part 50 for using laboratory accreditation by ABs that are signatories to the ILAC MRA, in lieu of performing commercial-grade surveys as part of the commercial-grade dedication process for procurement of calibration and testing services performed by domestic and international laboratories. It was also noted in the safety evaluation that after June 1, 2021, the 2005 edition of ISO/IEC-17025 will become invalid and only accreditation to the 2017 edition of ISO/IEC-17025 can be achieved and recognized under the ILAC MRA process. Therefore, NEDA is requested to remove references to the 2005 edition of ISO/IEC-17025 in the proposed DQAP and only reference the 2017 edition of ISO/IEC-17025.

DAEC Response

All references to the 2005 edition of ISO/IEC-17025 have been updated in Attachment 1 to reflect the 2017 edition.

Additionally, Section 7.4.2 has been updated in Attachment 1 to include the following:

- *Subcontracting of these accredited services is prohibited.*

RAI-3

Regulatory Guide 1.28, "Quality Assurance Program Criteria (Design and Construction)," Revision 5, Section C, "Regulatory Position," Subsection 4.b, "External Audits," bullet (2), states, in part, that "the applicant or licensee should either audit its supplier's QA program on a triennial

basis or arrange for such an audit. The triennial period begins when an audit is performed. The licensee or applicant may perform an audit when the supplier has completed sufficient work to demonstrate that its organization is implementing a QA program that has the required scope for purchases placed during the triennial period. If a subsequent contract or a contract modification significantly enlarges the scope or changes the methods or controls for activities performed by the same supplier, the licensee or applicant should conduct an audit of the modified requirements, thus starting a new triennial period."

In Section 18.0, "Audits," of the proposed DAEC DQAP, Subsection 18.4 states that "external audits of suppliers provided materials, parts, equipment or services within the scope of this DQAP are scheduled and performed based on the importance of the activity and to confirm implementation of the supplier's Quality Assurance Program at a frequency of not less than three (3) years with an audit extension period identified in D above."

External audits are performed at a frequency of not more than three (3) years, or at an interval not to exceed three (3) years. Therefore, NEDA is requested to clarify the frequency of external audits in the proposed DAEC DQAP.

DAEC Response

Subsection 18.4 has been updated in Attachment 1 to clarify the frequency of external audits, as follows:

> *"External audits of suppliers providing materials, parts, equipment or services within the scope of this DQAP are scheduled and performed based on the importance of the activity and to confirm implementation of the supplier's Quality Assurance Program at a frequency of not more than three (3) years with an audit extension period identified in D above."*

Attachment 1 to this enclosure has been updated to include the responses above and replaces Attachment 1 of "Request for Approval of NextEra Energy Duane Arnold, LLC's Decommissioning Quality Assurance Program Revision 0," dated July 30, 2021 (ML21214A125), in its entirety.

ENCLOSURE TO NG-22-0050

Attachment 1

NextEra Energy Duane Arnold, LLC
Decommissioning Quality Assurance Program

35 pages follow

NextEra™ Energy Duane Arnold, LLC

DECOMMISSIONING QUALITY ASSURANCE PROGRAM (DQAP)

(Formerly QATR)

Duane Arnold Energy Center

Proposed Revision 0

Approved By:

_____
Richard Baird
Director Nuclear Assurance and Assessment

_____
Date

_____
Bob Coffey
Executive Vice President, Nuclear Division and
Chief Nuclear Officer

_____
Date

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POLICY STATEMENT

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

The Decommissioning Quality Assurance Program (DQAP), is the highest tiered document that assigns major functional responsibilities for the DAEC. Implementing documents assign more specific responsibilities and define the organizational interfaces involved in conducting important to safety activities within the scope of this DQAP. These requirements apply to those organizations and positions which manage and perform activities within its scope.

The NEDA organization is structured on the basis that the attainment of the objectives of this Program relies on those who manage, perform, and support the performance of activities within the scope of the DQAP. Assurance of this attainment relies on those who have no direct responsibility for performing the activity.

1.0 ORGANIZATION

NEDA is responsible for the establishment and execution of the DQAP at DAEC. NEDA submitted a Certification of Permanent Cessation of Operations and Certification of Permanent Removal of Fuel to the NRC, per 10 CFR 50.82(a)(1)(i) and (ii), respectively. The titles of managers used in the DQAP are generic, or functional titles and their formal titles may vary. Unless otherwise specifically prohibited, responsibilities of managers described in the DQAP may be delegated to, and be performed by, other qualified individuals. Site organizations will be commensurate with the activities and risks associated with decommissioning.

1.1 Responsibilities

1.1.1 The authorities and duties of persons and organizations performing activities within the scope of this DQAP are established and delineated in writing. These activities include both performing the functions of attaining quality objectives and the Quality Assurance functions.

1.1.2 All NEDA personnel who work directly, or indirectly, for NEDA are responsible for the achievement of quality in their work. Accordingly, all NEDA personnel, affiliate personnel, and its contractors engaged in supporting decommissioning activities shall comply with the requirements of this DQAP.

1.1.3 The overall responsibility for maintenance, inspection, test, modification, decommissioning and storage of spent fuel resides with the Executive Vice President and Chief Nuclear Officer (CNO), NextEra Energy, Nuclear. The Decommissioning Director is responsible for the administration and implementation of the DQAP at the DAEC.

1.1.4 The DQAP is reviewed and approved by the management position responsible for Nuclear Oversight. The management position responsible for Nuclear Oversight is responsible for periodically appraising the CNO on the effectiveness of the DQAP implementation and immediately apprises the CNO of significant problems affecting quality.

1.1.5 Management of line organizations at the decommissioning facility is responsible to ensure that the quality of work and activities meets the requirements set forth in the decommissioning technical specifications, this DQAP, and implementing procedures.

1.2 Corporate Organizations

1.2.1 The Chief Nuclear Officer (CNO), NextEra Energy, reports to the Chairman and CEO of NextEra Energy, Inc., 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, expectations, and priorities to ensure activities are performed in accordance with this DQAP and other requirements. The following fleet management positions and committees report to and/or receive direction from the CNO with respect to their assigned roles and responsibilities associated with the execution of this DQAP:

- A management position responsible for Strategic Planning, Project Management, License Renewal, Nuclear Projects, and Decommissioning. This position reports to the CNO and is responsible for defining standard programs and processes, delivering effective services and support, providing technical oversight of program implementation, and supporting the deployment and sharing of best practices throughout the nuclear organization in accordance with the QAP and other requirements, as applicable.

- A management position responsible for Nuclear Oversight reports to the CNO and is responsible to provide oversight to ensure compliance with the DQAP. Nuclear Oversight maintains a staff of supervisory, administrative, and technical personnel to verify the DQAP is effectively implemented. Nuclear Oversight personnel shall have sufficient authority and organizational freedom to identify any quality problems and to verify implementation of corrective actions. Additionally, Nuclear Oversight personnel shall have direct access to appropriate levels of management necessary to perform their function and shall be independent from cost and schedule when opposed to quality and safety considerations. Functional responsibilities include:

    - Managing the performance of periodic audits and quality verification inspections in order to verify that activities within the scope of the DQAP have been correctly performed.
    - Establishing quality assurance practices and policies.
    - Authority and obligation to raise any conditions adverse to quality to the CNO for resolution as necessary.
    - Assuring quality activities are performed in accordance with implementing procedures.
    - Employee Concerns Program.
    - Reporting on oversight activities to the CNO.
    - Authority to stop work when quality is adversely affected.
    - Preparation and performance of audits as required by the DQAP.

1.2.2 Additional Support Organization

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

1.3 Station Management

The following DAEC decommissioning facility management positions and associated DQAP functional responsibilities may be delegated to others as established in this document.

1.3.1 The Decommissioning Director reports to the CNO and is responsible for the overall safe activities at the plant. The Decommissioning Director shall have control over those onsite activities necessary for safe storage and maintenance of spent nuclear fuel, including maintaining the facility within the constraints of applicable regulatory requirements, license, decommissioning technical specifications and training. The Decommissioning Director, or specified designee, shall approve, prior to implementation, all tests, experiments, and modifications to systems or equipment that affect the safe storage and maintenance of spent nuclear fuel. Supervisory direction is provided for the technical review program, including approval of individuals as technical reviewers as applicable. Three (3) management positions reporting to the Decommissioning Director have individually assigned responsibilities for the following:

- Implementation of the site's Physical Security Plan
- ALARA planning
- Chemistry and environmental activities
- Engineering support activities, development and maintenance of engineering programs, policies, procedures and providing engineering services in accordance with the DQAP
- Document control and records management
- Maintaining an interface between the station and federal and state regulators
- Emergency Preparedness
- Corrective Action Program
- Maintenance and modification activities

The following responsibility may be included in the decommissioning facility management or in the corporate organization:

- Coordination, evaluation, and procurement of materials for the decommissioning facility.

The Safety Review Group serves the Decommissioning Director in a technical capacity and provides review of plant safety and performance (see Appendix D).

2.0 QUALITY ASSURANCE PROGRAM

2.1 The QA Program for the DAEC decommissioning facility is described in this DQAP, which provides control over activities affecting quality to an extent consistent with their importance to safety and compliance. The DQAP includes specific monitoring activities which are measured against acceptance criteria in a manner sufficient to provide NEDA management assurance that the activities affecting quality are performed in an acceptable manner. The DQAP requirements apply to (i.e. the following are in the scope of the DQAP) structures, systems, or components (SSCs) designated as important to safety, regulatory programs, and other activities, and SSCs identified in either the facility specific Decommissioning Safety Analysis Report (DSAR) or Appendices of this DQAP.

2.2 The DQAP satisfies the requirements of 10 CFR 50 Appendix B, Quality Assurance Criteria for Nuclear Power Plants and Fuel Processing Plants, 10 CFR 71 Subpart H, Quality Assurance for Packaging and Transportation of Radioactive Material, and 10 CFR 72 Subpart G, Quality Assurance for Independent Storage of Spent Nuclear Fuel and High-Level Radioactive Waste. Regulatory commitments are listed within Appendix C of the DQAP. Implementation of this DQAP is controlled through separately issued procedures, instructions, and drawings. Each organization is responsible for the establishment and implementation of procedures and instructions prescribing the activities within the scope of this DQAP for which they are responsible.

2.3 Activities affecting quality shall be accomplished under suitably controlled conditions. Controlled conditions include the use of appropriate equipment; suitable environmental conditions for accomplishing the activity, such as adequate cleanliness; and assurance that all prerequisites for the given activity have been satisfied. The DQAP takes into account the need for special controls, processes, test equipment, tools, and skills to attain the required quality, and the need for verification of quality by inspection and testing where required.

2.4 Changes to the DQAP will be implemented in accordance with 10 CFR 50.54(a).

2.5 Program Control and Authority

2.5.1 The management position responsible for Nuclear Oversight is responsible for ensuring that the applicable portions of the DQAP are properly documented, approved and implemented before an activity within the scope of the DQAP is executed. Disputes arising between departments or organizations on any QA matter that cannot be resolved at a lower level of management will be referred to the CNO.

2.5.2 Additional requirements for specific programs are described in Administrative Controls, in the applicable facility Decommissioning technical specifications, or in the DQAP, with the exception of security requirements which are contained in the applicable facility Physical Security Plan; and Emergency Plan requirements which are contained within the applicable facility Site Emergency Plan. Fire Protection Program requirements are addressed in Appendix D of this DQAP.

2.6 Program Review

2.6.1 The status and effectiveness of the DQAP and its implementation is periodically reviewed by the management of the organization responsible for its execution. In addition, the effectiveness of the DQAP is evaluated and reported by Nuclear Oversight through the audit and inspection functions.

2.7 Personnel Training and Qualifications

2.7.1 Formal indoctrination and training programs for personnel performing or verifying activities within the scope of this DQAP are established and maintained. The indoctrination and training programs are established by on-site and/or off-site organizational units responsible for the performance or verification of activities within the scope of this DQAP.

2.7.2 All personnel shall have sufficient qualifications, as applicable, to perform their assigned duties. Implementing procedures provide the criteria utilized for determining and assessing appropriate staff qualifications. Indoctrination, training, and qualification programs are established such that:

- Personnel performing and/or verifying activities affecting quality are trained and qualified in the principles, techniques, and requirements of the activity being performed.
- Formal training and qualification program documentation includes the objective, content of the program, attendees, and date of attendance.
- Proficiency tests are given as applicable to those personnel performing and verifying activities affecting quality and the acceptance criteria are developed to determine if individuals are properly trained and qualified.
- Certificate of qualification, as applicable, clearly delineates the specific functions personnel are qualified to perform and the criteria used to qualify personnel in each function.
- Proficiency of personnel performing and verifying activities affecting quality is maintained by re-training, re-examining, re-qualifying, and/or recertifying as determined by management or program commitment.

3.0 DESIGN CONTROL

3.1 Measures shall be established to assure that the designs, including applicable regulatory requirements and design bases, technical and quality requirements, are correctly translated to design documents which include specifications, drawings, procedures and instructions. NEDA has overall responsibility for design and design control activities including, preparing, reviewing, approving, and verifying design documents related to the facility's structures, systems, and components (SSCs) within the scope of the DQAP.

3.2 Design changes to SSCs within the scope of this DQAP shall be properly controlled using design control measures commensurate with those applied to the original design. Design changes are reviewed and approved by the same design groups cognizant in the discipline affected by the change that reviewed and approved the original documentation, unless alternative design groups are designated. Design activities associated with the facility changes or modifications may be performed by NEDA or qualified contractors. Design groups shall have access to background information, shall be competent in the specific area of design interest, and shall understand the requirements and intent of the original design.

3.3 Measures shall be established for the selection and review for suitability of application of materials, parts, equipment, and processes that are essential to SSCs that have current important to safety functions. Design control implementing procedures shall define responsibility for the following:

- Design Input
- Design Performance
- Design Interface
- Design Verification
- Design Change

3.4 Design inputs shall be identified, documented, and correctly translated into design outputs. Design inputs shall be specified to a level of detail necessary to allow the design activities to be carried out in a controlled manner. The final design output shall relate to the design input in sufficient detail to facilitate design verification.

3.5 The design organization shall prescribe and document the design activities to the level of detail necessary to permit the design process to be completed in a correct manner which permits verification that the design meets requirements. Design documents shall support facility design, construction, safe storage and handling of spent fuel, and decommissioning projects. Appropriate quality standards shall be identified and documented, and their selection reviewed and approved. Deviations from original design standards shall be reviewed to ensure that the designated quality requirements remain in the design of SSCs, as applicable.

3.6 Design control measures shall be applied to those SSCs within the scope of this DQAP. Design analyses shall be sufficiently detailed such that a person technically qualified in the subject can review and understand the analyses and verify the adequacy of the results without additional input.

3.7 Design interfaces for SSCs within the scope of this DQAP shall be identified and controlled. Interface controls shall include the assignment of responsibility and the establishment of procedures among participating design organizations. Controls shall be established for the review, approval, release, distribution, and revision of documents involving design interfaces. Design information transmitted across interfaces shall be documented and controlled.

3.8 Changes or modifications to designated SSCs shall be approved by the Design Authority or designee. Procedures for implementing design changes and field changes shall assure that the impact of the change is considered, required actions documented, and information concerning the change transmitted to affected persons or organizations. Applicable regulatory criteria (i.e. 10 CFR 50.59, 10 CFR 50.82(a), or 10 CFR 72.48) shall be used to determine if NRC approval is required prior to implementation of a design change. For SSCs within the scope of this DQAP, these changes shall be subject to design control measures commensurate with those applied to the original design.

3.9 Design verification for SSCs within the scope of this DQAP shall provide assurance that the final design is correct and has been performed in accordance with approved procedures describing position responsibilities and authorities for the design reviews. Documentation to be reviewed for this design work includes the necessary calculations and/or analysis, design criteria specifications, drawings, procedures, and instructions to permit a comprehensive review.

3.10 Design verification may be accomplished through design reviews, alternate calculations, or qualification testing. These methods of design verification are defined in design procedures as applicable. The results of the design verification activities shall be documented with the identification of the verifier clearly documented. Design verification shall be performed by competent individual(s) other than those who performed the original design but may be from the same organization. This verification may be performed by the originator's supervisor, provided the supervisor did not specify a singular design approach, rule out certain design considerations, did not establish the design inputs used in the design, or the supervisor is the only individual in the organization competent to perform the verification. Cursory supervisory reviews do not satisfy the intent of design verification. Design verification shall be completed prior to relying upon the SSC to perform its important to safety function.

3.11 Nonconforming activities such as deviations, errors, or deficiencies in the approved design documents, including design methods (e.g., computer codes), shall be identified, documented, and controlled. Computer programs used to calculate or develop data for important to safety activities shall be subject to validation and verification.

3.12 Design documentation and records which provide evidence that the design and design verification process was performed in accordance with the DQAP, shall be collected, stored, and maintained in accordance with approved procedures. This documentation includes final design documents, such as drawings, specifications, calculations, and revisions there to and documentation which identifies important steps, including sources of design inputs that support the final design.

4.0 PROCUREMENT DOCUMENT CONTROL

4.1 Measures shall be established for the preparation, review, and approval of procurement documents for those items and activities within the scope of this DQAP. Procurement documents include or reference the appropriate regulatory, technical, and quality requirements necessary to assure adequate quality for those materials, equipment, and services that are within the scope of this DQAP. Measures are established to assure that, to the extent necessary, contractors or subcontractors provide a QA Program consistent with the provisions of 10 CFR 50 Appendix B, 10 CFR 71 Subpart H, or 10 CFR 72 Subpart G, and 10 CFR 21, as applicable.

4.2 NextEra Energy maintains a controlled list of evaluated suppliers that are audited on a triennial basis. The evaluated list of such vendors, suppliers, and contractors is described in controlling procedures for the appropriate important to safety classification, except for procurement from other licensees that have an NRC approved quality program.

4.3 Procurement documents require the vendors to incorporate quality assurance program requirements in sub-tier procurement documents and allow right of access to the vendors, sub-tier vendors, and contractors facilities and records for inspection or audit by NEDA or designated representative.

4.4 Procurement document control applies to SSCs within the scope of this DQAP and any spare or replacement parts for those SSCs. Procurement documents shall include those requirements necessary to assure that the items and services to be provided meet the specified technical and quality requirements. Specifically, the procurement system assures that the appropriate technical and quality requirements are specified for procurement of items and services considering the important to safety function, complexity of the design, manufacturing, degree of inspection / testability upon receipt, and other factors which affect the quality of products and services.

4.5 Procedures that implement procurement document control shall describe the organizational responsibilities for procurement planning, preparation, review, approval and control of procurement documents; supplier selection; bid evaluation; identification of replacement parts where applicable; and review and evaluation of supplier's QA Program prior to release for bid and contract award for activities within the scope of this DQAP.

4.6 Procedures shall be established to review the adequacy of the technical and QA requirements specified within procurement documents. Personnel who have access to pertinent information and who have an adequate understanding of the requirements and intent of the procurement documents shall perform reviews required to ensure the adequacy of the technical and QA requirements. Changes to procurement documents shall be subject to the same controls as the original documents.

5.0 INSTRUCTIONS, PROCEDURES AND DRAWINGS

5.1 Measures shall be established to assure that quality activities are prescribed by and performed in accordance with documented instructions, procedures, or drawings. Documented and approved instructions, procedures, and drawings are required to accomplish work on SSCs within the scope of this DQAP.

5.2 These instructions, procedures, and drawings include, as appropriate, quantitative or qualitative acceptance criteria for determining that activities have been satisfactorily accomplished. Procedures may include reference to vendor equipment manuals, design drawings and specifications, prerequisites, special precautions, and the delineation of work to be performed. Equipment manuals and manufacturer's instructions shall be readily available for use as appropriate.

5.3 Controls are established which ensure that instructions, procedures, and drawings are current and accurately reflect plant design and regulatory requirements. Documents comprising of instructions, procedures, specifications, and drawings prepared by outside contractors for the performance of site activities are reviewed and approved by the responsible manager or designated representative.

6.0 DOCUMENT CONTROL

6.1 Measures shall be established to control the issuance of documents, such as instructions, procedures, drawings, including changes thereto, which prescribe activities affecting quality and activities within the scope of this DQAP. These measures assure that documents, such as procedures, instructions and drawings, are reviewed for adequacy by qualified personnel other than the personnel that prepared the document, approved for release and use, and available at the location where the activity is performed. Written procedures shall define the type of documents to which the document control system applies. These procedures also define the process for controlling the preparation, review, approval, issuance, and distribution.

6.2 Documents and changes to documents that prescribe or verify activities within the scope of this DQAP shall be controlled in a manner that precludes the use of inappropriate or outdated documents. The document control system procedures shall be established to identify the current revision of instructions, procedures, specifications, drawing and procurement documents.

6.3 Changes to documents shall be reviewed and approved by the same organization that performed the original review and approval unless another qualified organization has been designated. Administrative controls shall be established that provide the methods by which temporary changes can be made to procedures which are approved, including the designation of persons authorized to approve such changes, and the time period during which they may be used. Minor changes to documents, such as inconsequential editorial corrections, shall not require that the revised documents receive the same review and approval as the original documents. To avoid a possible omission of a required review, the type of minor changes that do not require such a review and approval, and the persons who can authorize such a decision, shall be clearly delineated.

7.0 CONTROL OF PURCHASED MATERIAL, EQUIPMENT AND SERVICES

7.1 Measures shall be established for the control of purchased material, equipment, and services, to assure they conform to the procurement documents as they apply to activities within the scope of this DQAP. These measures provide for the following as appropriate: source evaluation and selection, evaluation of objective evidence of quality furnished by the supplier, source inspection, audit, and examination of items or services. Procedures shall describe each organization's responsibilities for the control of purchased material, equipment, and services, including the interfaces between all affected organizations.

7.2 Verification that a supplier can meet the specified technical and quality requirements shall be documented. NextEra Energy maintains a controlled list of evaluated suppliers that are audited on a triennial basis. Documented supplier performance monitoring is performed in accordance with approved procedures as an acceptable alternate to the performance of the annual evaluation of suppliers. The evaluated list of such vendors, suppliers, and contractors is described in controlling procedures for the appropriate important to safety classification, except for procurement from other licensees that have an NRC approved quality program. Suppliers of commercial grade calibration services may be qualified based on their accreditation by a nationally recognized accrediting body, as an alternative to qualification by supplier audit, commercial grade survey, or in-process surveillance as described below.

7.3 This DQAP considers that other 10 CFR Parts 50 and 52 licensees, Authorized Nuclear Inspection Agencies, National Institute of Standards and Technology, or other State and Federal agencies, which may provide items or services to the facility, are not required to be evaluated or audited.

7.4 Commercial grade calibration and/or testing services may be procured from domestic and international commercial calibration and/or testing laboratories based on the laboratory's accreditation to ISO/IEC-17025 by an Accreditation Body (AB) which is a signatory to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA) provided all of the following are met:

7.4.1 A documented review of the supplier's accreditation is performed, and includes a verification of the following:

- The calibration or test laboratory holds accreditation by an accrediting body recognized by the ILAC MRA.
- The accreditation encompasses ISO/IEC-17025:2017, "General Requirements for the Competence of Testing and Calibration Laboratories."
- For procurement of calibration services, the published scope of accreditation for the calibration laboratory covers the needed measurement parameters, ranges, and uncertainties.
- 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.

Control of Purchased Material, Equipment and Services (Continued)

7.4.2 The purchase documents require that:

- The service must be provided in accordance with their accredited ISO/IEC-17025:2017 program and scope of accreditation.
- 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)
- The equipment/standards used to perform the calibration must be identified in the certificate of calibration. (For calibration services only)
- The calibration/testing laboratory to notify the DAEC of any condition that adversely impacts the laboratory's ability to maintain the scope of accreditation.
- 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.
- Subcontracting of these accredited services is prohibited.

7.4.3 It is validated, at receipt inspection, that the laboratory's documentation certifies that:

- The contracted calibration or test service has been performed in accordance with their ISO/IEC-17025:2017 program, and has been performed within their scope of accreditation; and
- The purchase order's requirements are met.

7.5 The effectiveness of contractors and supplier's QA program shall be assessed at intervals consistent with the importance, complexity, and quantity of the product or service. Supplier performance and compliance with procurement documents are monitored by source verification, receipt inspection, audit, or a combination, to ensure continued acceptable supplier performance. Receiving inspection shall verify, by objective evidence, the acceptability of items in accordance with facility procedures. Accepted items are appropriately marked and located in a controlled storage area until use. Documentary evidence shall be retained in accordance with facility requirements, and applicable regulatory requirements, and shall be sufficient to identify the specific requirements, such as codes, standards, or specifications, met by the purchased material and equipment.

7.6 For acquiring of services only, such as: third-party inspection, engineering and consulting services; auditing and installation; and repair, overhaul, or maintenance work, from suppliers whose QA Program has not been reviewed or accepted, those suppliers may be used, provided additional controls such as technical verification of data produced, surveillance and/or audit of the activity, or review of objective evidence are employed. These additional controls shall be documented in the request for services, and approved by the appropriate level of management.

Control of Purchased Material, Equipment and Services (Continued)

7.7 Spare and replacement parts are procured such that their performance and quality are at least equivalent to those of the parts that will be replaced, as determined by engineering where applicable.

7.8 Designated quality personnel, or other personnel with appropriate qualifications, are responsible for assuring source inspections, surveys, or audits of suppliers are performed as necessary. Documentation of acceptance shall be available prior to installation or acceptance for use.

8.0 IDENTIFICATION AND CONTROL OF MATERIALS, PARTS, AND COMPONENTS

8.1 Measures shall be established for the identification and control of material, parts, and components, including partially fabricated assemblies and consumables, to assure that only correct and accepted items are used or installed. Identification is maintained on the items or in documents traceable to the items, and physical identification shall be used to the maximum extent possible. If physical identification is either impractical or insufficient for proper control, an item is controlled by physical separation, procedural control, or other appropriate means.

8.2 Markings are applied using materials and methods that are clear, legible and do not detrimentally affect the function or service life of the items that are marked. Markings are transferred to each part of an identified item prior to being subdivided. Markings are not obliterated or masked by surface treatments or coatings unless alternative identification methods are established. When codes, standards, or specifications require specific identification or traceability requirements of an item, procedures shall describe how to maintain traceability as applicable.

8.3 Provisions are made in procedures for maintenance or replacement of markings or identification due to damage from handling or aging, excessive deterioration due to environmental exposure, and for updating records while in storage. Items having limited shelf or operating life are controlled to preclude use after the shelf life or operating life has expired.

9.0 CONTROL OF SPECIAL PROCESSES

9.1 Measures shall be established to assure that special processes that require interim process controls to assure quality, such as welding, heat treating, and nondestructive examination, are controlled. These provisions include assuring that special processes are accomplished by qualified personnel using instructions, procedures, drawings, checklists, or other appropriate means. Personnel are qualified and 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. Records are maintained, as appropriate, for the qualified personnel, processes, and equipment.

9.2 NEDA qualifies NDE personnel in accordance with the applicable editions of the codes and standards accepted by the NRC, as identified in fleet NDE procedures.

10.0 INSPECTION

10.1 Measures shall be established for inspection of activities within the scope of this DQAP by or for the organization performing the activity, in order to verify conformance with approved instructions procedures, drawings, and specifications for accomplishing the task.

10.2 A comprehensive program of inspections shall be established and implemented to verify conformance of an item or activity with the specified requirements and inspection methods used and will be performed by personnel qualified to validate that the activities meet this acceptance criteria specified in applicable design documents. Inspections shall be performed by qualified individuals other than those who perform or directly supervise the activity being inspected. Inspections, examinations, or tests may be performed by individuals in the same organization as that which performed the work.

10.3 Where mandatory hold or witness points are required for witness or inspection activities by designated personnel, the designated hold points shall be indicated in appropriate documentation. Work shall not progress beyond the point of an assigned hold point unless the inspection is complete or consent to waive the hold point is given by the designated organization.

10.4 Inspections shall be planned to ensure the characteristic to be inspected and the methods used to perform the inspection and acceptance criteria are documented. If inspection of processed or fabricated items is impractical, monitoring of the processing method and equipment shall be utilized. Process monitoring shall be performed by qualified personnel or a qualified automated process. Inspection and process monitoring shall both be used if quality control is inadequate without both.

10.5 Final inspections shall include record review and examinations, measurements / tests as appropriate to verify adequate quality measures were employed in the construction, fabrication and/or processing. Final inspection results shall document the as-found condition including final acceptance/rejection criteria evaluation.

10.6 Unacceptable inspection results shall be evaluated and resolved in accordance with approved procedures. Any modifications, repairs, and replacements are re-inspected to the same standard or method to verify acceptability of the items. Inspection records shall identify the item inspected, date of inspection, inspector's identity, results of inspection, and reference to information taken in connection with nonconformances.

11.0 TEST CONTROL

11.1 Measures shall be established for a documented test program in accordance with applicable Decommissioning technical specifications, license conditions, and design documents to assure that all required testing demonstrate that the structures, systems, or components within the scope of this DQAP will perform satisfactorily in service. The test program shall ensure that design and performance criteria have been satisfied and that the testing does not adversely affect the important to safety SSCs.

11.2 The test program shall include criteria for determining when testing is required, such as proof tests prior to installation, preoperational tests, and operational tests of SSCs. The procedures that implement testing shall specify the appropriate prerequisites for the test (e.g., personnel qualification requirements, environmental conditions, equipment requirements) sufficient instruction for the performance of the testing, hold or witness points, acceptance/rejection criteria and limits, and the required test documentation. Test results are evaluated by qualified personnel to determine compliance with established acceptance criteria. Test results which do not meet acceptance criteria shall be documented and evaluated in order to determine the appropriate corrective actions. The test program shall require that modifications, repairs, and replacement of items that have a current important to safety function be tested, utilizing the same criteria as the original items to the extent applicable to the current important to safety function. If alternative tests are required, the alternative tests must be reviewed and approved by the same organization that established the original requirements unless the applicable manager designates another responsible organization. Test records shall be maintained in accordance with approved procedures.

12.0 CONTROL OF MEASURING AND TEST EQUIPMENT

12.1 Measures shall be established to assure those tools, gauges, instruments, and other measuring and test equipment (M&TE), used for activities within the scope of this DQAP, are controlled, calibrated and adjusted in order to maintain accuracy within necessary limits and to ensure its traceability to calibration test data. Measures shall also be established for the control of permanently installed instrument and control devices that are within the scope of this DQAP.

12.2 Organizational responsibilities shall be delineated for establishing, implementing, and assuring the effectiveness of the calibration program for M&TE. Reference standards used to determine the acceptability of items and activities shall be of appropriate type, and maintained within prescribed accuracy limits, suitable ranges, and accuracies, in order to verify conformance to specified requirements.

12.4 Procedures for the control and calibration of permanently installed plant equipment that are within the scope of this DQAP shall specify identification requirements (labeling, codes, or other documented control system), the recall process and calibration process and frequencies (including documented pre-calibration checks) of the M&TE to nationally recognized standards. Calibration methods are documented and performed by competent personnel in an environment that does not adversely affect the calibration. The calibration procedures shall specify recording of as-found conditions and a means for determining which equipment shall be included in the calibration program. M&TE used in the calibration of permanently installed plant equipment shall have ranges, precision, and accuracy equal to or greater than that to be calibrated and where this is impractical; the cognizant authority shall document rationale for accuracy.

12.5 The calibration procedures shall delineate special controls where applicable, for usage, handling, and storage required for environmental conditions such as temperature, humidity, cleanliness, or radiation, in order to maintain accuracy and operating characteristics of the M&TE.

12.6 Calibration reference standards shall be based on nationally recognized standards or accepted values of natural physical constants. Where national standards do not exist, the basis for the calibration shall be documented. Special calibration and control measures are not required when normal commercial practices provide adequate accuracy (e.g. rulers, tape measures, levels, and other such devices).

12.7 M&TE which is found to be damaged, out-of-calibration or for which accuracy is suspect, shall be tagged and segregated and processed in accordance with approved procedures. When M&TE is found to be out-of-tolerance, an evaluation is made of its previous uses to determine corrective action.

13.0 HANDLING, STORAGE, AND SHIPPING

13.1 Measures shall be established to control the handling, storage, shipping, packaging, cleaning and preservation of items, material and equipment within the scope of this DQAP, in accordance with applicable design, work, and procurement requirements in order to prevent damage or deterioration during handling, packaging, preservation, storage, and shipping.

13.2 Special coverings, equipment and protective environments shall be specified and provided where necessary for the protection of items, material, and equipment from damage and deterioration. Special protective measures are specified and provided when required to maintain acceptable quality. When special protective features are required, their existence shall be verified and monitored as necessary to assure that the special protective features continue to serve its intended function. Special handling tools and equipment shall be provided, where necessary, to ensure items, material and equipment can be handled safely and without damage.

13.3 Controls for hoisting, rigging, and transporting shall be established to protect SSCs within the scope of this DQAP as applicable. Markings or labeling shall be used to indicate the presence of special environments, or the need for special controls. Provisions shall be described for the storage of chemicals, reagents (including control of shelf life), lubricants and other combustible materials. Cleanliness controls shall be implemented to protect applicable SSCs from the introduction of foreign material and maintain system cleanliness as applicable throughout maintenance and modification activities.

14.0 INSPECTION, TEST, AND OPERATING STATUS

14.1 Measures shall be established for indicating the status of items within the scope of this DQAP undergoing inspections and tests to prevent the inadvertent bypassing or altering the sequence of such inspections or tests and avoid inadvertent operation. 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. The methods used to indicate inspection, test and operating status, including control of these indicators, are prescribed by approved procedures and shall be readily apparent and verifiable.

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

14.3 Deviations from the required sequence shall be subject to the same level of control as the generation of the original sequence to prevent the bypassing or omission of required test or inspection. The operating status of nonconforming, inoperable or malfunctioning SSCs shall be identified and documented to prevent inadvertent operation.

15.0 NONCONFORMING MATERIAL, PARTS, OR COMPONENTS

15.1 Measures shall be established for the identification, evaluation, segregation when practical, disposition of nonconforming items, and for notification to affected organizations. Items (including applicable services) that do not conform to specified requirements shall be controlled to prevent inadvertent installation or use.

15.2 Measures shall require that the individual (or designee), discovering a nonconformance, identify, describe, and document the nonconformance in accordance with the requirements of the corrective action program. Actions taken to address nonconforming items shall be documented. Controls are provided to address conditional release of nonconforming items for use on an at-risk basis prior to resolution and disposition of the nonconformance, including maintaining identification of the item and documenting the basis for such release. Conditional release of nonconforming items for installation requires the approval of the designated management. Nonconformances are corrected or resolved prior to depending on the item to perform its intended important to safety function. Nonconformances to design requirements dispositioned as repair or use as-is are subject to design control measures commensurate with those applied to the original design. Significant trends in nonconformances are reported to management in accordance with applicable procedures, regulatory requirements, and industry standards.

15.3 Nonconforming items that are being used for training must be controlled (e.g., administratively controlled, permanently identified, marked, obliterate Material ID Tag or Q level indicators) to prevent inadvertent or inappropriate use of the item.

16.0 CORRECTIVE ACTION

16.1 Measures shall be established to promptly identify, control, document, classify, and correct conditions adverse to quality. Procedures assure that corrective actions are documented and initiated following the determination of conditions adverse to quality in accordance with regulatory requirements and applicable quality standards. Procedures require personnel to identify known conditions adverse to quality. When a complex issue arises where it cannot be readily determined if a condition adverse to quality exists, measures shall be established for documentation and timely evaluation of the issue. Significant conditions adverse to quality are documented and reported to responsible management. In the case of a significant condition adverse to quality, the cause is determined and actions to preclude recurrence are taken and followed up on to verify implementation.

16.2 In case of suppliers performing activities within the scope of this DQAP, or other similar situations, the applicable manager may delegate specific responsibilities for corrective actions but maintains responsibility for the effectiveness of corrective action measures.

17.0 QUALITY ASSURANCE RECORDS

17.1 Measures shall be established which define the requirements and responsibilities for identification, generation, collection, compilation, storage, maintenance, retention, and retrieval of records necessary to provide objective evidence that activities within the scope of this DQAP are in compliance with the regulations and facility implementing procedures.

17.2 Distribution of records shall be controlled in accordance with written procedures. Measures are established for replacement, restoration, or substitution of lost or damaged records. A system for receipt control of records is established. Receipt control is required for records transferred between NEDA locations, vendors and the NEDA, and from NEDA department files to final storage locations.

17.3 Records are legible, accurate, complete, identifiable, and retrievable. Records are considered valid and complete when dated and stamped, initialed, signed, or otherwise authenticated. Corrections, revisions, or supplements to completed records are reviewed and approved by an authorized individual in the originating organization. Such changes are dated and stamped, initialed, signed, or otherwise authenticated including the use of electronic approval and authorization as applicable.

17.4 Record storage facilities are established and maintained in a manner that minimizes the risk of damage or destruction. Records may be kept by suppliers and maintained on an available basis for a specified period of time. Records may be stored in electronic media provided that the process for managing and storing data is documented in procedures that comply with applicable regulations, including NRC guidance in RIS 2000-18 and as recognized in NIRMA (Nuclear Information Records Management Association) technical guides TG-11, TG-15, TG-16, and TG-21 as approved in NRC SERs.

17.5 Record retention periods are established to meet regulatory, DSAR, DQAP, and License requirements. The most stringent retention period is implemented when multiple requirements exist. Records are dispositioned at the end of the prescribed retention period.

18.0 AUDITS

18.1 Measures shall be established for a system of planned and documented audits to verify compliance with all aspects of the DQAP and determine the effective implementation of programs covered by the DQAP. Internal and supplier audits are conducted in accordance with written procedures or checklists. Audit personnel shall not have direct responsibilities in the areas to be audited.

18.2 The internal audit program is conducted on a performance driven frequency that is commensurate with the status and importance of the activity to be completed but does not exceed 36 months, unless otherwise required by regulation. An evaluation will be performed once per calendar year to determine the need for additional audit activities. When determined necessary, an additional audit activity will be performed within a timeframe established by the evaluation. Audits may be extended beyond their originally scheduled due date based on the following criteria:

A. Audits shall be performed at the intervals designated and the schedules are based on the month in which the audit starts.

B. A maximum extension not to exceed 25 percent of the audit interval is allowed unless restricted by regulation.

C. When an audit interval extension greater than one month is used, the next audit for that particular audit area is scheduled from the original anniversary month rather than from the month of the extended audit.

D. Item B applies to supplier audits and evaluations except that a total combined interval for any three (3) consecutive inspection or audit intervals does not exceed 3.25 times the specified inspection or audit interval.

Emergency Planning, Access Authorization, Security, Fire Protection and Independent Spent Fuel Storage are audited in accordance with site procedures and at frequencies established by related NRC rules. A grace period shall not be applied to these regulatory topics unless permitted by the NRC Rule.

18.3 Audit scheduling, preparation, personnel selection, personnel qualification, performance, reporting, response, follow-up, and records management for audits are performed in accordance with written procedures. Audit scopes and schedules are based upon the status of work progress, activities being performed, regulatory requirements, and/or experience with the organization being audited. An audit schedule shall be maintained, reviewed, and revised as necessary at least annually, to ensure that programs receive necessary audits to support regulatory compliance.

18.4 External audits of suppliers providing materials, parts, equipment or services within the scope of this DQAP are scheduled and performed based on the importance of the activity and to confirm implementation of the supplier's Quality Assurance Program at a frequency of not more than three (3) years with an audit extension period identified in D above.

18.5 Audit reports shall be prepared, reviewed, approved and distributed in accordance with approved procedures.

APPENDIX A

TERMS AND DEFINITIONS

A.1. Important to safety (for this DQAP)

Structures, systems, and components (SSCs) whose functions are to protect spent fuel and/or the capability to prevent or mitigate the consequences of accidents that could result in potential for offsite exposure comparable to the guidelines in 10 CFR 50.34(a)(1), 10 CFR 50.67(b)(2) or 10 CFR 100.11, as applicable. These SSCs are typically listed in site specific DSARs or ISFSI design documents. Refer to NUREG/CR-6407, "Classification of Transportation Packaging and Dry Spent Fuel Storage System Components According to Importance to Safety," for application of this term to transportation packaging and dry fuel storage systems for compliance with 10 CFR 71 and 10 CFR 72.

A.2. For other terms and definitions refer to the applicable standard or guidance such as:

- 10 CFR 50.2, Definitions
- 10 CFR 71.4, Definitions
- 10 CFR 72.3, Definitions

APPENDIX B

WRITING REFERENCE DOCUMENTS

B.1. Quality Standards and Regulatory Guidance

- Regulatory Guide 7.10, Establishing Quality Assurance Programs for Packaging Used in the Transportation of Radioactive Materials (Revision 2-March 2005).
- NUREG-1757, Consolidated Decommissioning Guidance, Volume 1, Revision 2

B.2. Safety Evaluation Reports

- Revision 1, U.S. NRC, Safety Evaluation by the Office of Nuclear Reactor Regulation quality assurance independent review program alternative, Duane Arnold Energy Center, Kewaunee Nuclear Power Plant, Monticello Nuclear Plant, Palisades Nuclear Plant, Point Beach Nuclear Plant, Units 1 and 2, Docket Nos. 50-331, 50-305, 50-263, 50-255, 50-266, 50-301, 50-282, and 50-306, dated January 13, 2005, ADAMS Accession No. ML050210276

APPENDIX C

REGULATORY COMMITMENTS

C.1. 10 CFR 50 Appendix B, *Quality Assurance Criteria for Nuclear Power Plants and Fuel Processing Plants*

C.2. 10 CFR 71 Subpart H, *Quality Assurance for Packaging and Transportation of Radioactive Material*

C.3. 10 CFR 72, Subpart G, *Quality Assurance for Licensing Requirements for the Independent Storage of Spent Nuclear Fuel and High-Level Radioactive Waste*

C.4. NUREG/CR-6407, *Classification of Transportation Packaging and Dry Fuel Storage System Components According to Important to* Safety *(2/1996)*

APPENDIX D

GENERAL ADMINISTRATIVE REQUIREMENTS

D.1. 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. 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 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.

D.2. Transport of Radioactive Waste

When NEDA contracts with vendors to transport radioactive waste in NRC approved shipping packages, it meets the requirements of 10 CFR 71, Subpart H. NEDA assures that this service is procured from an organization with a QA program and if applicable, includes an NRC licensed transport system. Loading, surveying, closure, placarding, and inspections are conducted in accordance with written procedures and instructions. Transport casks and trailers are inspected before release in accordance with Department of Transportation (DOT) 49 CFR. Shipping manifests, including final radiation surveys, are completed and retained. Radioactive waste shipments not meeting the requirements for NRC approved packaging, shall meet the requirements of DOT 49 CFR.

D.3. Services

NEDA procures services from qualified suppliers. It is not necessary that these suppliers have a quality assurance program approved by the licensee, however, suppliers should provide a quality assurance program that includes the quality assurance program elements presented in Regulatory Guide 4.15, "Quality Assurance for Radiological Monitoring Programs (Normal Operations) – Effluent Streams and the Environment," and routinely provide program data summaries sufficiently detailed to permit evaluation of the program for the following areas:

- Meteorology
- Offsite Dose Assessment Manual
- Radiological environmental monitoring

D.4. License Renewal

Consistent with the requirements of 10 CFR 54.21(a)(3), NEDA implements the requirements of DQAP Section 1 through 18 for aging management activities related to safety-related SSCs as described by licensing documents for those systems that remain active.

Additionally, to manage the aging effects of non-safety-related SSCs that were determined to be within the scope of License Renewal, NEDA implements the administrative controls, corrective actions and confirmation processes described in DQAP Sections 6, 16, and the applicable requirements of this appendix.

D.5. Safety Review Group

The Safety Review Group (SRG) is responsible to the Decommissioning Director as an on-site review body that performs procedure and program reviews for decommissioning activities and ISFSI operation as necessary on matters of Nuclear Safety. Details regarding the membership, quorum, agenda, and meeting schedule are contained in implementing procedures.

APPENDIX E

SITE SPECIFIC ADMINISTRATIVE REQUIREMENTS

E.1. Regulatory Guide 1.33

Written procedures shall be established, implemented, and maintained for the applicable procedures recommended in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978.

E.2. Independent Spent Fuel Storage Installation (ISFSI) SSC

ISFSI quality assurance program requirements are performed in accordance with the applicable 10 CFR 72.212 report which invokes the portions of the NRC approved 10 CFR 50 Appendix B quality assurance program as described in this DQAP, commensurate with the safety classification of the component and quality requirements specified in the cask vendor Final Safety Analysis Report (FSAR) or site-specific license.

E.3. Records Retention

The following records shall be retained for at least five years:

- Records and logs of activities related to the safe storage of irradiated fuel.
- Records and logs of principle maintenance activities, inspections, repair and replacement of principal items of equipment related to safe storage of irradiated fuel.
- All Licensee Event Reports.
- Records of surveillance activities, inspections and calibrations required by technical specifications.
- Records of changes made to the procedures required by technical specification.
- Records of sealed source leak tests and results.
- Records of annual physical inventory of all source material of record.

The following records shall be retained for the duration of the Facility License:

- Records and drawing changes reflecting facility design modification made to systems and equipment needed for the safe storage of irradiated fuel as described in the Defueled Safety Analysis Report.
- Records of irradiated fuel inventory, fuel transfers and assembly burnup histories.
- Records of facility radiation and contamination surveys.
- Records of doses received by all individuals for whom monitoring was required.
- Records of gaseous and liquid radiative material released to the environs.
- Records of training and qualification for current members of the facility staff.
- Records of reviews performed for changes made to procedures or equipment or reviews of tests and experiments pursuant to 10 CFR 50.59.
- Records of results of analyses required by the Radiological Environmental Monitoring Program.
- Records of reviews performed for changes made to the Defueled Offsite Dose Assessment Manual and Process Control Plan.
- Records of radioactive shipments.