



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

Re: Florida Power & Light Company

St. Lucie Units 1 and 2, Docket Nos. 50-335, 50-389 Turkey Point Units 3 and 4, Docket Nos. 50-250, 50-251

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

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

Fleet Relief Request (FRR) 23-01, Proposed Alternative to ASME Section XI Authorizing Implementation of ASME Code Case N-752-1

Pursuant to 10 CFR 50.55a(z)(1), Florida Power & Light Company (FPL), acting on behalf of itself and as agent for NextEra Energy Seabrook, LLC, and NextEra Energy Point Beach, LLC, requests Nuclear Regulatory Commission (NRC) authorization to implement an alternative to certain American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI (ASME Section XI) requirements at Turkey Point Nuclear Plant, Units 3 and 4 (Turkey Point), St. Lucie Nuclear Plant, Units 1 and 2 (St. Lucie), Seabrook Nuclear Plant, Unit 1 (Seabrook), and Point Beach Nuclear Plant, Units 1 and 2 (Point Beach). (In this request, these licensees are referred to collectively as "NextEra"). The proposed alternative would apply to select ASME Section XI, Sub-paragraphs IWA-1000, IWA-4000 and IWA-6000 requirements associated with the repair and replacement of Class 2 and 3 pressure retaining items and their supports. NextEra requests authorization to implement ASME Code Case N-752-1, "Risk-Informed Categorization and Treatment for Repair/Replacement Activities in Class 2 and 3 Systems Section XI, Division 1" as a proposed alternative providing an acceptable level of quality and safety. ASME Code Case N-752-1 employs a comprehensive categorization process using both risk-informed and deterministic insights to resolve emergent issues in Class 2 and 3 piping of low safety significance (LSS). ASME Code Case N-752-1 allows licensees to establish alternative treatment requirements provided they can confirm with reasonable confidence that each LSS item remains capable of performing its safety function.

The enclosure to this letter provides the evaluation supporting the relief request. This relief request contains regulatory commitments, as discussed in the enclosure and itemized in Attachment 1 to the enclosure.

NextEra requests approval within one-year of satisfactory application review and acceptance. Once approved, the relief request will be incorporated into NextEra implementing procedures within 90 days.

Should you have any questions regarding this submission, please contact Mr. Kenneth Mack, Fleet Licensing Manager, at 561-904-3635.

Executed on the 15th day of March 2023.

Dianne Strand

Sincerely

General Manager, Regulatory Affairs

Florida Power & Light Company NextEra Energy Seabrook, LLC,

NextEra Energy Point Beach, LLC

Florida Power & Light Company

# Enclosure:

Attachment 1 - Listing of Regulatory Commitments

cc: NRC Project Manager - St. Lucie

NRC Project Manager - Turkey Point NRC Project Manager - Seabrook NRC Project Manager - Point Beach

NRC Resident Inspector - St. Lucie NRC Resident Inspector - Turkey Point NRC Resident Inspector - Seabrook NRC Resident Inspector - Point Beach

Regional Administrator - NRC Region 1 Regional Administrator - NRC Region 2 Regional Administrator - NRC Region 3

#### Fleet Relief Request FRR-23-01

# Proposed Alternative to ASME Section XI Authorizing Implementation of ASME Code Case N-752-1 in Accordance with 10 CFR 50.55a(z)(1)

-- Acceptable Level of Quality and Safety --

## 1. ASME Code Components Affected

All ASME Class 2 and 3 items or components except the following:

- (a) Class CC and MC items
- (b) Piping within the break exclusion region [> Nominal Pipe Size (NPS) 4 (DN 100)] for high energy piping systems as defined by the owner.
- (c) that portion of the Class 2 feedwater system [>NPS 4 (>DN 100)] of pressurized water reactors (PWRs) from the steam generator, including the steam generator, to the outer containment isolation valve.

# 2. Applicable Code Edition and Addenda

The applicable code editions and addenda for each of the subject nuclear sites are specified below.

Site/Unit	ASME Section XI Edition/Addenda	ASME Section XI Interval	Applicable Dates	
Turkey Deint Unit 2	2007/2008	Fifth	2/22/2014 - 2/21/2024	
Turkey Point Unit 3	2019*	Sixth	2/22/2024 - 2/24/2034	
Turkey Point Unit 4	2007/2008	Fifth	4/15/2014 - 4/14/2024	
	2019*	Sixth	4/15/2024 - 4/14/2034	
St. Lucie Unit 1	2007/2008	Fifth	2/11/2018 - 2/10/2028	
Ot Levels Usek O	2007/2008	Fourth 8/8/2013 - 8/7/2023		
St. Lucie Unit 2	2019*	Fifth	8/8/2023 - 8/7/2033	
Point Beach Unit 1	2017	Sixth	8/1/2022 - 7/31/2032	
Point Beach Unit 2	2017	Sixth 8/1/2022 - 7/31/2032		
Seabrook Unit 1	rook Unit 1 2013 Fourth 8/19/2020		8/19/2020 - 8/18/2030	

<sup>\*</sup> As discussed in Section 6 of this relief request, the requested duration of relief includes the remainder of the current 10-year inservice inspection intervals, and the entirety of the subsequent 10-year intervals for St. Lucie Unit 2, and Turkey Point Units 3 and 4. The 2019 Edition of ASME Section XI will be adopted for the St. Lucie Unit 2, and the Turkey Point Units 3 and 4 subsequent 10-year intervals. The adoption of the 2019 Edition of ASME Section XI for St. Lucie Unit 2, and for Turkey Point Units 3 and 4, are identified in Attachment 1 as regulatory commitments.

# 3. Applicable Code Requirement

ASME Code, Section XI, Subsection IWA provides requirements for repair/replacement activities including the following:

- IWA-1320 specifies group classification criteria for applying the rules of ASME Section XI to various Code Classes of components. For example, the rules of IWC apply to items classified as ASME Class 2 and the rules in IWD apply to items classified as ASME Class 3.
  - Applies to all applicable NextEra Editions/Addenda.
- IWA-1400(f) or (g) requires Owners to possess or obtain an arrangement with an Authorized Inspection Agency (AIA).
  - o 1400(f) applies to the 2007 Edition / 2008 Addenda
  - o 1400(g) applies to the 2013, 2017 and 2019 Edition
- IWA-1400(j) or (k) requires Owners to perform repair/replacement activities in accordance with written programs and plans.
  - o 1400(j) applies to the 2007 Edition / 2008 Addenda
  - 1400(k) applies to the 2013, 2017 and 2019 Edition
- IWA-1400(n) or (o) requires Owners to maintain documentation of a Quality Assurance Program in accordance with 10 CFR 50 or ASME NQA-1, Parts II and III.
  - o 1400(n) applies to the 2007 Edition / 2008 Addenda
  - o 1400(o) applies to the 2013, 2017 and 2019 Editions
- IWA-4000 specifies requirements for performing ASME Section XI repair/replacement activities on pressure retaining items or their supports.
  - o Applies to all applicable NextEra Editions/Addenda.
- IWA-6210(e) defines the preparation of code data reports.
  - o Applies to 2007 Edition/2008 Addenda
- IWA-6211(d) and (e) define the preparation and required timing of code data reports and certification required from Repair/Replacement organizations other than the owner.
  - Applies to the 2013, 2017 and 2019 Edition
- IWA-6212 repeats the requirement for certification by an R/R Organization and refers to Appendix T as an example.
  - o Applies to the 2013, 2017 and 2019 Edition
- IWA-6220 repeats the IWA-4150 requirement that a Repair/Replacement Plan be prepared for all repair/replacement activities, requires code data reports be completed, provides the required timing

for completion of code data reports, identified certification requirements for code data reports and includes the requirement for maintaining an index of Repair/Replacement plans.

- o Applies to the 2017 and 2019 editions only.
- IWA-6350 specifies that the following ASME Section XI repair/replacement activity records must be retained by the Owner: evaluations required by IWA-4160 and IWA-4311, Repair/Replacement Programs and Plans, reconciliation documentation, and NIS-2 Forms.
  - o Applies to all applicable NextEra Editions/Addenda.

#### 4. Reason for Request

At present, all NextEra nuclear stations perform repair/replacement activities in accordance with a deterministic Repair/Replacement Program based on the ASME Section XI Code. Repair/Replacement Program requirements apply to procurement, design, fabrication, installation, examination, and pressure testing of items within the scope of ASME Section XI. Repair/replacement activities include welding, brazing, defect removal, metal removal using thermal processes, rerating, and removing, adding, or modifying pressure retaining items or supports. Repair/replacement activities are performed in accordance with the 10 CFR 50, Appendix B, Quality Assurance (QA) Program and the ASME Section XI Code. In applying a deterministic approach to repair/replacement activities, a safety class (e.g., ASME Class 2 or 3) is assigned to every component within a system based on system function; the same treatment requirements are then applied to every component within the system without considering the risk associated with the probability that a specific item or component may or may not be functional at a time when needed.

Alternatively, a probabilistic approach to regulation enhances and extends the traditional deterministic approach by allowing consideration of a broader set of potential challenges to safety, providing a logical means for prioritizing these challenges based on safety significance, and allowing consideration of a broader set of resources to defend against these challenges. In contrast to the deterministic approach, Probabilistic Risk Assessment (PRA) addresses credible initiating events by assessing the event frequency. Mitigating system reliability is then assessed, including the potential for common cause failures. The probabilistic approach to regulation is an extension and enhancement of traditional regulation by considering risk in a comprehensive manner. In 2004, the NRC promulgated 10 CFR 50.69 relating to the risk-informed categorization and treatment of structures, systems, and components (SSCs) for nuclear power plants (Reference 8.1). This regulation permits licensees to implement an alternative regulatory framework with respect to "special treatment" (treatment beyond normal industrial practices) of low safety significant (LSS) SSCs. In May 2006, the NRC staff issued Regulatory Guide (RG) 1.201, "Guidelines for Categorizing Structures, Systems, and Components in Nuclear Power Plants According to their Safety Significance, For Trial Use," Revision 1 (Reference 8.2). RG 1.201 endorses a categorization method, with conditions, for categorizing SSCs as described in Nuclear Energy Institute (NEI) 00-04, "10 CFR 50.69 SSC Categorization Guideline" (Reference 8.3),

NextEra proposes to implement the risk-informed categorization and treatment requirements of ASME Code Case N-752-1 when performing repair/replacement activities on Class 2 and 3 pressure retaining items or their associated supports. ASME Code Case N-752-1, which was approved by the ASME in 2021, employs a comprehensive categorization process requiring input from both a PRA model and deterministic insights. This approach will enable evaluation, categorization, and implementation of alternative treatments for resolution of emergent issues in piping segments of low safety significance. ASME Code Case N-752-1 will also allow NextEra to identify and more clearly focus engineering, maintenance, and operations resources on high safety significance (HSS) components, thus, enabling NextEra to make more informed decisions and increase the safety of the plants. NextEra requests no exceptions or deviations to the code case, including all definitions.

# 5. Proposed Alternative and Basis for Use

Pursuant to 10 CFR 50.55a(z)(1), NextEra requests to implement ASME Code Case N-752-1, without exception, at the NextEra nuclear stations as an alternative to the ASME Code requirements specified in Section 3. This requested implementation includes the categorization of passive SSCs (e.g., piping) and implement alternative special treatment activities limited to the repair/replacement activities for Class 2 and 3 pressure retaining items or their associated supports. For components that have both active and passive functions, only the passive function will be categorized. The alternative treatments associated with ASME Code Case N-752-1 will not be applied to the parts/components associated with the active function. ASME Code Case N-752-1 may be applied on a system basis or on individual items within selected systems. ASME Code Case N-752-1 will not be applied to Class 1 items.

The use of this proposed alternative is requested on the basis that requirements in ASME Code Case N-752-1 will provide an acceptable level of quality and safety.

#### 5.1 Overview of ASME Code Case N-752-1

ASME Code Case N-752-1 provides for risk-informed categorization and treatment requirements for performing repair/replacement activities on Class 2 and 3 pressure retaining items or their associated supports. ASME Code Case N-752-1 is not applicable to the following:

- Class CC and MC items.
- Piping within the break exclusion region [> NPS 4 (DN 100)] for high energy piping systems as defined by the Owner.
- That portion of the Class 2 feedwater system [> NPS 4 (DN 100)] of PWRs from the SG, including the SG, to the outer containment isolation valve.

ASME Code Case N-752-1 categorization methodology relies on the conditional core damage and large early release probabilities associated with postulated ruptures. Safety significance is generally measured by the frequency and the consequence of the event. However, the risk-informed process categorizes components solely based on consequence, which measures the safety significance of the component given that it ruptures (component failure is assumed with a probability of 1.0). This approach is conservative compared to including the rupture frequency in the categorization as this approach will not allow the categorization of SSCs to be affected by any changes in frequency due to changes in treatment. It additionally applies deterministic considerations (e.g., defense in depth, safety margins) in determining safety significance. Additional detail is provided Section 5.2.

The risk-informed process categorizes components as either HSS or LSS. HSS components must continue to meet ASME Section XI rules for repair/replacement activities. LSS components are exempt from ASME Section XI repair/replacement requirements and can be repaired/replaced in accordance with treatment requirements established by the Owner. The treatment requirements must provide reasonable confidence that each LSS item remains capable of performing its safety-related functions under design basis conditions. Component supports, if categorized, are assigned the same safety significance, HSS or LSS, as the highest passively ranked segment within the bounds of the associated analytical pipe stress model. The categorization and treatment requirements of ASME Code Case N-752-1 are consistent with those in 10 CFR 50.69.

#### 5.2 Basis for Use

The information below is provided as a basis for the proposed alternative to implement the risk-informed categorization and treatment requirements of ASME Code Case N-752-1 on Class 2 and 3 pressure retaining items, or the associated supports as delineated in Section 1.

#### A. Application to Individual Items Within a System

The risk-informed methodology of ASME Code Case N-752-1 may be applied on a system basis or on individual items within selected systems. Paragraph -1100 of ASME Code Case N-752-1 states: "This Case may be applied on a system basis, including all pressure retaining items and their associated supports, or on individual items categorized LSS within the selected systems." While this is the case, the risk informed methodology is applied to the pressure boundary function of the individual components within the system. The risk informed methodology contained in ASME Code Case N-752-1 requires that the component's pressure boundary function be assumed to fail with a probability of 1.0, and all impacts caused by the loss of the pressure boundary function be This would include identifying impacts of the pressure boundary failure on the component under evaluation, identifying impacts of the pressure boundary failure of the component on the system in which the component resides, as well as identifying impacts of the pressure boundary failure of the component on any other plant SSC. This includes direct effects (e.g., loss of the flow path) of the component failure and indirect effects of the component failure (e.g., flooding, spray, pipe whip, loss of inventory). This comprehensive assessment of total plant impact caused by a postulated individual component failure is then used to determine the final consequence ranking. As such, the final consequence rank of the individual component would be the same regardless of whether the entire system or only the individual component is subject to the risk informed methodology.

#### B. Categorization Process

The categorization process of ASME Code Case N-752-1 is delineated in Appendix I of the ASME Code Case. The ASME Code Case N-752-1 risk-informed categorization evaluation is performed by an Owner-defined team that includes experts with expertise in PRA, plant operations, system design, and safety or accident analysis. The risk-informed categorization process is based on the conditional consequence of failure, given that a postulated failure has occurred. A consequence category for each piping segment or component is determined via a failure modes and effects analysis (FMEA) and impact group assessment. The FMEA considers pressure boundary failure size, isolability of the break, indirect effects, initiating events, system impact or recovery, and system redundancy. The results of the FMEA for each system, or portion thereof, are partitioned into core damage impact groups based on postulated piping failures that cause an (1) initiating event, (2) disable a system/train/loop without causing an initiating event, or (3) cause an initiating event and disable a system/train/loop. Failures are also evaluated for their importance relative to containment performance. In addition, the consequence rank is reviewed and adjusted to reflect the pressure boundary failure's impact on plant operation during shutdown and on the mitigation of external events. Credit may be taken for plant features and operator actions to the extent these would not be adversely affected by failure of the piping segment or component under consideration.

Consequence evaluation results are ranked as High, Medium, Low, or None (no change to base case). Piping segments/components ranked as High by the consequence evaluation process are considered HSS and require no further review. Piping segments/components ranked as Medium, Low, or None by the consequence evaluation shall be determined to be HSS or LSS by evaluating the additional categorization considerations or conditions outlined in paragraph I-3.4.2(b) of ASME Code Case N-752-1. If any of these conditions are not met, then HSS shall be assigned. If all conditions are met, then LSS may be assigned. If LSS is assigned, the categorization process shall verify that there are sufficient margins to account for uncertainty in the engineering analysis and

supporting data. If sufficient margin exists, then LSS should be assigned. If sufficient margin does not exist, then HSS shall be assigned.

#### C. PRA Technical Adequacy

Appendix I, Section I-3.2 of ASME Code Case N-752-1 requires that the plant-specific PRA shall be assessed to confirm it is applicable to the safety significant categorization of ASME Code Case N-752-1 including verification of assumptions on equipment reliability for equipment not within the scope of the code case.

All NextEra site PRA models were previously used to support the use of a Risk-Informed In-Service Inspection Programs, which were initially approved by the NRC in References 8.4 through 8.9. Implementation of these programs had similar PRA requirements, as the methodologies for both Risk-Informed ISI and Risk-Informed Repair & Replacement have their foundations in EPRI Report TR112657, Rev. B-A.

Additionally, each NextEra site PRA has been approved by the NRC to support other risk-informed applications. These include:

#### Point Beach

- Amendment Nos. 262 and 265 regarding 10CFR 50.69, "Risk-Informed Categorization and Treatment of Structures, Systems and Components for Nuclear Power Reactors" (Reference 8.10)
- Amendment Nos. 253 and 257 regarding Technical Specifications Task Force Initiative 5B, TSTF-425, Revision 3, "Relocate Surveillance Frequencies to Licensee Control". (Reference 8.11)

#### Seabrook

o Amendment 141 regarding Risk-Informed Justifications for the Relocation of Specific Surveillance Frequency Requirements to a Licensee-Controlled Program (Reference 8.12)

#### St. Lucie

- Amendment Nos. 247 and 199 regarding Adoption of Risk-Informed Completion Times in Technical Specifications (Reference 8.13)
- Amendment Nos. 223 and 173 regarding Risk-Informed Justifications for the Relocation of Specific Surveillance Frequency Requirements to a Licensee-Controlled Program (Reference 8.14)

# Turkey Point

- Amendment Nos. 263 and 258 regarding Risk-Informed Justifications for the Relocation of Specific Surveillance Frequency Requirements to a Licensee-Controlled Program (Reference 8.15)
- Amendment Nos. 284 and 278 regarding Adoption of Risk-Informed Completion Times in Technical Specifications (Reference 8.16)

Accordingly, all NextEra units continue to demonstrate that the unit specific PRA is applicable to the safety significant categorization of ASME Code Case N-752-1. Additionally, NextEra will review

and assess the PRA used to support the evaluations required by ASME Code Case N-752-1 to verify their technical adequacy prior to implementation.

## D. Feedback and Process Adjustment

ASME Code Case N-752-1 requires the Owner to review changes to the plant operational practices, applicable plant and industry operational experience, and, as appropriate, update the PRA and categorization and treatment processes. The Owner shall perform this review in a timely manner but no longer than once every two refueling outages.

NextEra procedures currently require a PRA update that includes, but is not limited to operational practices and procedures, operational experience, and plant design changes. This review is required for all plants on a frequency not to exceed 2 refueling cycles. As such, NextEra is in compliance with this requirement.

# E. Treatment Requirements for LSS Items

ASME Code Case N-752-1 exempts LSS items, which have been categorized as LSS in accordance with the code case, from having to comply with the repair/replacement requirements of ASME Section XI. Exempted ASME Code requirements for LSS items are outlined in Section 3, above. In lieu of these requirements, ASME Code Case N-752-1, Paragraph -1420 requires the Owner to define alternative treatment requirements which confirm with reasonable confidence that each LSS item remains capable of performing its safety-related functions under design basis conditions. These Owner treatment requirements must address or include all of the provisions stipulated in Paragraphs -1420(a) through (j) of the code case. This approach to treatment is consistent with RISC-3 treatment requirements specified in 10 CFR 50.69(d)(2).

To comply with the above, NextEra will develop new and/or revise existing procedures and documents to define treatment requirements for performing repair/replacement activities on LSS items in accordance with ASME Code Case N-752-1. NextEra defined treatment requirements will address design control, procurement, installation, configuration control, and corrective action. NextEra procedures and documents will also include provisions which address/implement the following requirements:

- 1. Administrative controls for performing these repair/replacement activities.
- 2. The fracture toughness requirements of the original Construction Code and Owner's Requirements shall be met.
- 3. Changes in configuration, design, materials, fabrication, examination, and pressure testing requirements used in the repair/replacement activity shall be evaluated, as applicable, to ensure the structural integrity and leak tightness of the system are sufficient to support the design bases functional requirements of the system.
- 4. Items used for repair/replacement activities shall meet the Owner's Requirements or revised Owner's Requirements as permitted by the licensing basis.
- 5. Items used for repair/replacement activities shall meet the Construction Code to which the original item was constructed. Alternatively, items used for repair/replacement activities shall meet the technical requirements of a nationally recognized code, standard, or specification applicable to that item as permitted by the licensing basis.
- 6. The repair methods of nationally recognized post construction codes and standards (e.g., PCC-2, API-653) applicable to the item may be used.

- 7. Performance of repair/replacement activities, and associated non-destructive examination (NDE), shall be in accordance with the Owner's Requirements and, as applicable, the Construction Code, or post construction code or standard, selected for the repair/replacement activity. Alternative examination methods may be used as approved by the Owner. NDE personnel may be qualified in accordance with IWA-2300 in lieu of the Construction Code.
- 8. Pressure testing of the repair/replacement activity shall be performed in accordance with the requirements of the Construction Code selected for the repair/replacement activity or shall be established by the Owner.
- 9. Baseline examination (e.g., preservice examination) of the items affected by the repair/replacement activity, if required, shall be performed in accordance with requirements of the applicable program(s) specifying periodic inspection of items. See paragraph 5.2.E.11, below, for additional details.
- 10. Implementation of ASME Code Case N-752-1 does not negate or affect NextEra commitments to regulatory and enforcement authorities having jurisdiction at any NextEra nuclear stations.
- 11. Periodic ISI and inservice testing (IST) of LSS items at NextEra nuclear stations will continue to be performed as follows:
  - ISI of LSS pressure retaining items or their associated supports will be performed in accordance with the site's ISI program implemented in accordance with 10 CFR 50.55a.
  - IST of pumps and valves that have been classified as LSS will be performed in accordance with the site's IST program implemented in accordance with 10 CFR 50.55a.
  - IST of snubbers that have been classified as LSS will be performed in accordance with the site's Snubber Testing program implemented in accordance with 10 CFR 50.55a.
  - Inspections of LSS items performed under other plant programs, such as the Flow Accelerated Corrosion and Microbiologically Induced Corrosion programs, will continue to be performed under those programs for the site.
- 12. Adverse conditions identified in LSS components will be entered in the NextEra Energy corrective action program, which satisfies 10CFR50 Appendix B criteria for corrective action. Conditions that would prevent an LSS item from performing its safety related function(s) under design basis conditions will be corrected in a timely manner. For SSCs under 10CFR 50.36, "Technical Specifications," adverse conditions will be addressed within the timeline of the limiting conditions of operability, or the necessary action statements will be performed. For significant conditions adverse to quality, measures will be taken to provide reasonable confidence that the cause of the condition is determined, and corrective action taken to preclude repetition.
- 13. As permitted by ASME Code Case N-752-1, NextEra intends to implement the exemption on IWA-1400(f) and IWA-4000 applicable to utilization of an AIA and Authorized Nuclear Inservice Inspector (ANII) when performing repair/replacement activities on LSS items. In lieu of ANII inspection services, NextEra believes that its proposed treatment requirements, as described herein, provide reasonable confidence that LSS systems and items remains capable of performing their safety-related functions when repair/replacement activities are performed without the inspection services of an ANII. It should also be noted that the exemption of ANII services is not unique to ASME Code Case N-752-1. Utilization of ANII inspection services is already exempt by ASME Section XI for certain items and activities such as small items (IWA-4131) and rotation of items for testing or preventative maintenance (IWA-4132).

14. As permitted by ASME Code Case N-752-1, NextEra intends to implement the Quality Assurance (QA) Program exemption applicable to Section XI paragraphs IWA-1400(n) and IWA-4000 when performing repair/replacement activities on SSCs determined to be LSS in accordance with ASME Code Case N-752-1. However, the exemption from the QA Program requirements of ASME Section XI does not apply if the QA Program requirements of 10 CFR 50, Appendix B, or NQA-1 are required at the facility, as is the case for NextEra's nuclear facilities. NextEra's QA Program requirements are described in the NextEra Quality Assurance Topical Report (QATR) whereby proposed changes are subject to the regulatory change control requirements of 10 CFR 50.54(a)(3). In order to implement the ASME Code Case N-752-1 exemption from the ASME Section XI QA Program requirements, NextEra revised the QATR in accordance with 10 CFR 50.54(a)(3) to exempt the QATR requirements for the repair and replacement of Class 2 and 3 components determined to be LSS in accordance with ASME Code Case N-752-1. Specifically, subsection A.7.2 of the QATR was revised to include the following statement:

For NextEra nuclear sites having received NRC authorization to use the alternative repair/replacement categorization and treatment requirements of ASME Code Case N-752-1 in lieu of the corresponding sections of ASME Section XI, as referenced in 10 CFR 50.55a Codes and Standards, treatment of safety-related structures, systems, and components (SSCs) identified as low safety significant (LSS) Class 2 and 3 SSCs in accordance with ASME Code Case N-752-1 is not required to meet the requirements of this manual. Instead, treatment of these LSS SSCs is performed in accordance with existing QA Program procedures and processes which include supplemental controls to ensure the capability and reliability of the SSCs design basis function.

The basis for the QATR change is established in the precedent identified in Section 7.2 of this amendment request and in accordance with 10 CFR 50.54(a)(3)(ii), which establishes that a quality assurance alternative or exception approved by an NRC safety evaluation is not considered a reduction in QA Program commitments provided the bases of the NRC approval are applicable to the licensee's facility. Consistent with the precedent in Section 7.2, under the amended QATR NextEra will define alternative treatment requirements that confirm with reasonable confidence that each Class 2 and 3 LSS SCC will remain capable of performing its safety-related function under design-basis conditions. In doing so, NextEra will use current QA Program processes and procedures with additional controls for the treatment of Class 2 and 3 LSS components to assure continued capability and reliability of the design-basis function(s). This includes ensuring that changes to the configuration, design, material, fabrication, examination, and testing requirements used to support repair/replacement activities on Class 2 and 3 LSS SSCs are performed in accordance with NextEra's existing design change process and addressing in NextEra's corrective action program (CAP) any condition that may prevent an LSS SSC from performing its design-basis function. For the procurement of Class 2 and 3 LSS components as non-safety-related for repair/replacement activities in accordance with ASME's Code Case N-752-1, supplemental procurement requirements will be specified, and additional controls will be implemented as appropriate to confirm with reasonable assurance that Class 2 and 3 LSS SSCs will remain capable of performing their safety-related function under design-basis conditions. Such controls include prohibiting suppliers of Class 2 and 3 SSCs and subparts to make design changes or changes to the procurement order without prior NextEra approval, and conducting receipt inspections using qualified inspection personnel consistent with NextEra's procurement requirements. Using these existing QA Program processes and alternative treatment requirements, NextEra believes with reasonable confidence that the implementation of ASME Code Case N-752-1 will ensure that each Class 2 and 3 LSS SSC remains capable of performing its design-basis function, and thereby the NextEra QATR will continue to provide an acceptable level of quality and safety.

15. As permitted by ASME Code Case N-752-1, NextEra intends to implement the exemptions on IWA-1400(j) and IWA-4000 applicable to repair/replacement programs and plans. In lieu of

these ASME Section XI administrative controls, NextEra will establish Owner defined administrative controls as required by paragraph -1420(a) of ASME Code Case N-752-1. NextEra will utilize its existing work management processes for planning and documenting the performance of repair/replacement activities and supplement those process requirements as necessary to comply with ASME Code Case N-752-1. These controls will ensure that repair/replacement activities on LSS items are performed in accordance with work instructions that have been appropriately, planned, reviewed, and implemented. It should also be noted that the exemption of Repair/Replacement Plans as required by IWA-1400(j) and IWA-4150 is not unique to ASME Code Case N-752-1. Repair/Replacement Plans are already exempt by ASME Section XI for certain items and activities such as small items (IWA-4131) and rotation of items for testing or preventative maintenance (IWA-4132). Finally, the exemption of ASME Section XI programs and plans and the alternative use of Owner-defined administrative requirements on LSS items is consistent with the NRC's position on risk-informed programs as specified in 10 CFR 50.69(b)(1)(v).

- 16. As permitted by ASME Code Case N-752-1, NextEra intends to implement the exemption on IWA-4000 applicable to repair/replacement activities. Article IWA-4000 of the ASME Section XI Code specifies administrative, technical, and programmatic requirements for performing repair/replacement activities on pressure retaining items and their supports. As specified in IWA-4110(b), repair/replacement activities "include welding, brazing, defect removal, metal removal by thermal means, rerating, and removing, adding, and modifying items or systems. These requirements are applicable to procurement, design, fabrication, installation, examination, and pressure testing of items within the scope of this Division". In lieu of these IWA-4000 requirements, NextEra will perform repair/replacement activities on LSS items in accordance with an Owner defined program that complies with paragraph IWA-1420 of ASME Code Case N-752-1. The NextEra program will utilize existing NextEra processes such as those applicable to procurement, design, re-rating, fabrication, installation, modifications, welding, defect removal, metal removal by thermal processes and supplement those process requirements as necessary to comply with ASME Code Case N-752-1. NextEra believes this program will ensure, with reasonable confidence, that LSS items remain capable of performing their safety-related functions under design basis conditions. Finally, the exemption of IWA-4000 requirements and the alternative use of Owner-defined treatment requirements for LSS items is consistent with the NRC's position on risk-informed programs as specified in 10 CFR 50.69(b)(1)(v) and (d)(2).
- 17. As permitted by ASME Code Case N-752-1, NextEra intends to implement the documentation exemptions on IWA-6210(d), IWA-6210(e), and IWA-6350. These ASME Section XI paragraphs address preparation and retention of various ASME Section XI records such as Form NIS-2, IWA-4160 verification of acceptability evaluations, IWA-4311 evaluations, Repair/Replacement Plans, and reconciliation documentation. In lieu of these ASME Section XI forms and evaluations, the following repair/replacement activity records shall be retained in accordance with FPL's Owner-defined program for performing repair/replacement activities on LSS items.
  - Repair/replacement activity documentation.
  - Evaluations of LSS items that do not comply with requirements of the applicable Construction Code, standard, specification, and/or design specification. See also paragraph 5.2.E.12.
  - Evaluations and documentation of design and configuration changes including material changes.

In addition, NextEra will revise applicable licensing basis documents (e.g., Updated Safety Analysis Report), for each NextEra site as appropriate, to identify systems, subsystems, or individual items

that have been categorized as LSS and address alternative treatment requirements. Changes to licensing basis documents will be performed in accordance with 10 CFR 50.59.

#### F. Conclusion

ASME Code Case N-752-1 specifies requirements for performing risk-informed categorization and treatment for performing repair/replacement activities on Class 2 and 3 pressure retaining items or associated supports. The ASME Code Case N-752-1 categorization process provides a comprehensive methodology for determining the safety significance of items — HSS or LSS. Repair/replacement activities performed on LSS items may comply with alternative treatment requirements that are defined by the Owner but must comply with all provisions of paragraph -1420 of ASME Code Case N-752-1. NextEra's proposed treatment requirements, as described herein, meet these criteria and provide reasonable confidence that LSS systems and items remains capable of performing their safety-related functions under design basis conditions.

## 6. Duration of Proposed Alternative

The duration of the proposed alternative will be the remainder of each sites' current ASME Section XI 10-year inservice inspection interval, as shown below, as well as the subsequent 10-year inservice inspection intervals for Turkey Point Units 3 & 4 and St. Lucie Unit 2.

Site/Unit	ASME Section XI Edition/Addenda	ASME Section XI Interval	Applicable Dates		
Tombre Delint Hait 0	2007/2008	Fifth	2/22/2014 - 2/21/2024		
Turkey Point Unit 3	2019*	Sixth	2/22/2024 - 2/24/2034		
Toutes Delat Hait 4	2007/2008	Fifth	4/15/2014 - 4/14/2024		
Turkey Point Unit 4	2019*	Sixth	4/15/2024 - 4/14/2034		
St. Lucie Unit 1	2007/2008	Fifth	2/11/2018 - 2/10/2028		
O4 1	2007/2008	Fourth	8/8/2013 - 8/7/2023		
St. Lucie Unit 2	2019*	Fifth	8/8/2023 - 8/7/2033		
Point Beach Unit 1	2017	Sixth	8/1/2022 - 7/31/2032		
Point Beach Unit 2	2017	Sixth	8/1/2022 - 7/31/2032		
Seabrook Unit 1	eabrook Unit 1 2013 Fourth		8/19/2020 - 8/18/2030		

# 7. Precedent

- U.S. Nuclear Regulatory Commission letter to Entergy Operations, Inc., Arkansas Nuclear One, Units 1 and 2 - Approval of Request for Alternative from Certain Requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (EPID L-2020-LLR-0076), May 19, 2021 (ADAMS Accession No. ML21118B039)
- 2. U.S. Nuclear Regulatory Commission letter to Entergy Operations, Inc., Arkansas Nuclear One, Units 1 and 2 Request for Approval of Change to the Entergy Quality Assurance Program Manual (EPID L-2020-LLQ-0005), May 19, 2021 (ADAMS Accession No. ML21132A279)

#### 8. References

- 1. 10 CFR 50.69, "Risk-Informed Categorization and Treatment of Structures, Systems, and Components for Nuclear Power Reactors," USNRC, 69 FR 68047, Nov. 22, 2004
- U.S. Nuclear Regulatory Commission (USNRC), Regulatory Guide 1.201, Revision 1, "Guidelines for Categorizing Structures, Systems, and Components in Nuclear Power Plants according to their Safety Significance, For Trial Use," May 2006 (ADAMS Accession No. ML061090627)
- 3. Nuclear Energy Institute (NEI) 004, Revision 0, 10 CFR 50.69 SSC Categorization Guideline, July 2005 (ADAMS Accession No. ML052910035)
- 4. USNRC letter to Florida Power and Light Company, "Turkey Point Plant, Unit 3 Relief Request Regarding Safety Evaluation of Risk-Informed Inservice Inspection Program", November 30, 2000 (ADAMS Accession No. ML003773526)
- 5. USNRC letter to Florida Power and Light Company, "Turkey Point Plant, Unit 4 Evaluation of Relief Request Concerning Safety Evaluation of Risk-Informed Inservice Inspection Program", August 1, 2003 (ADAMS Accession No. ML32130558)
- 6. USNRC letter to Florida Power and Light Company, "Saint Lucie Nuclear Plant, Unit 2 Evaluation of Relief Request 29 Concerning Risk-Informed Inservice Inspection", April 25, 2003 (ADAMS Accession No. ML031180171)
- 7. USNRC letter to Florida Power and Light Company, "St. Lucie Nuclear Plant, Unit No. 1 Relief Request No. 19 Regarding Risk-Informed Inservice Inspection Program, March 25, 2004 (ADAMS Accession No. ML040850587)
- 8. USNRC letter to North Atlantic Energy Service Corporation "Seabrook Station, Unit No. 1 Risk Informed Inservice Inspection Alternative Request", February 7, 2002 (ADAMS Accession No. ML020250222)
- USNRC letter to NextEra Energy Point Beach, LLC, "Point Beach Nuclear Plant, Units 1 and 2 -Issuance of Relief Request Regarding Risk-Informed Inservice Inspection Program for the Fifth 10-Year Inspection Interval", January 30, 2014 (ADAMS Accession No. ML14014A205)
- USNRC letter to NextEra Energy Point Beach, LLC, "Point Beach Nuclear Plant, Units 1 and 2 -Issuance of Amendments to Adopt Title 10 of the Code of Federal Regulations Section 50.69, "Risk-Informed Categorization and Treatment of Structures, Systems and Components for Nuclear Power Reactors", November 26, 3018 (ADAMS Accession No. ML18289A378)
- 11. USNRC letter to NextEra Energy Point Beach, LLC, "Point Beach Nuclear Plant Units 1 and 2 Issuance of Amendments Regarding Relocation of Surveillance Frequencies to Licensee Control", July 28, 2015 (ADAMS Accession No. ML15195A201)
- USNRC letter to NextEra Energy Seabrook, LLC, "Seabrook Station, Unit No. 1 Issuance of Amendment Regarding the Risk-Informed Justifications for the Relocation of Specific Surveillance Frequency Requirements to a Licensee-Controlled Program", July 24, 2014 (ADAMS Accession No. ML13212A069)
- 13. USNRC letter to Florida Power & Light Company, "St. Lucie Plant, Unit Nos. 1 and 2 Issuance of Amendment Nos. 247 and 199 Regarding Adoption of Risk-Informed Completion Times in Technical Specifications", July 2, 2019 (ADAMS Accession No. ML19113A099)
- 14. USNRC letter to NextEra Energy, "St. Lucie Plant, Unit Nos 1 and 2 Issuance of Amendments Regarding Risk-Informed Justifications for the Relocation of Specific Surveillance Frequency

Requirements to a Licensee-Controlled Program", June 22, 2015 (ADAMS Accession No. ML15127A066)

- 15. USNRC letter to NextEra Energy, "Turkey Point Nuclear Generating Unit Nos. 3 and 4 Issuance of Amendments Regarding Risk-Informed Justifications for the Relocation of Specific Surveillance Frequency Requirements to a Licensee-Controlled Program (ADAMS Accession No. ML15166A320)
- 16. USNRC letter to Florida Power & Light Company, "Turkey Point Nuclear Generating Unit Nos. 3 and 4 Issuance of Amendments Regarding Adoption of Risk-Informed Completion Times in Technical Specifications", December 3, 2018 (ADAMS Accession No. ML18270A429)

# **ATTACHMENT 1**

# **Regulatory Commitments**

The following table identifies the regulatory commitments and timeframes for completion that NextEra agrees to implement for the St. Lucie, Turkey Point, Point Beach, and Seabrook nuclear stations.

Regulatory Commitment		Type (Check One)		Scheduled
		One-Time Action	Continuing Compliance	Completion Date
1.	FPL will implement the 2019 Edition (No Addenda) of ASME Section XI for the Sixth ISI Interval at Turkey Point Unit 3.		<b>√</b>	2/22/2024
2.	FPL will implement the 2019 Edition (No Addenda) of ASME Section XI for the Sixth ISI Interval at Turkey Point Unit 4.		<b>√</b>	4/15/2024
3.	FPL will implement the 2019 Edition (No Addenda) of ASME Section XI for the Fifth ISI Interval at St. Lucie Unit 2.		<b>√</b>	8/8/2023