



July 23, 2015  
SBK-L-15152  
Docket No. 50-443

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

Seabrook Station

NextEra Energy Seabrook LLC's Request for Schedule Relaxation from NRC Order  
EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies  
for Beyond-Design-Basis External Events"

References:

1. NRC Order Number EA-12-049, "Issuance of Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," March 12, 2012 (ML 12054A735)
2. NextEra Energy Seabrook LLC's letter to the NRC, "Overall Integrated Plan in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049)," February 26, 2013 (ML 13063A438)
3. NextEra Energy Seabrook LLC's letter to the NRC, "Nextera Energy Seabrook, LLC's Fourth Six-Month Status Report in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049)", February 27, 2015 (ML15068A021)

This letter transmits a request for relaxation of the schedule requirements contained in Nuclear Regulatory Commission ("NRC" or "Commission") Order EA-12-049. On March 12, 2012, the NRC issued an Order (Reference 1) to NextEra Energy Seabrook, LLC (hereafter known as "Seabrook"). Reference 1 was immediately effective and directed Seabrook to develop, implement, and maintain guidance and strategies to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities in the event of a beyond-design-basis external event. Section IV of NRC Order EA-12-049 (Reference 1) provides that the Director, Office of Nuclear Reactor Regulation may relax the requirements of this Order.

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In accordance with Section IV of NRC Order EA-12-049, NextEra is requesting that the Director, Office of Nuclear Reactor Regulation relax the requirement for completion of full implementation for Seabrook as prescribed in Section IV.A.2 of NRC Order EA-12-049, as described in the enclosure to this letter.

Seabrook considers that, upon approval by the NRC, the alternative full implementation dates regarding NRC Order EA-12-049 proposed in the attachment will constitute a condition of the NRC Order EA-12-049 for Seabrook. Therefore, there are no new regulatory commitments contained in this letter.

If you have any questions regarding this report, please contact Mr. Michael Ossing, Licensing Manager, at (603) 773-7512.

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

Executed on July 23, 2015.

Sincerely,

NextEra Energy Seabrook, LLC

A handwritten signature in black ink, appearing to read "Dean Curtland", written over a horizontal line.

Dean Curtland  
Site Vice President

Enclosure

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cc: D. Dorman, NRC Region I Administrator  
J.G. Lamb, NRC Project Manager, Project Directorate 1-2  
P. Cataldo, NRC Senior Resident Inspector  
Director, Office of Nuclear Reactor Regulation  
Ms. Jessica A. Kratchmann, NRR/JLD/PMB, NRC  
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Enclosure to SBK-L-15152

Request for Schedule Relaxation from NRC Order EA-12-049, "Order Modifying Licenses with  
Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events"

**REQUEST FOR SCHEDULE RELAXATION OF NRC ORDER EA-12-049  
REQUIREMENT IV.A.2 FOR NEXTERA ENERGY SEABROOK, LLC**

**Relaxation Request:**

Pursuant to the procedure specified in Section IV of Nuclear Regulatory Commission (NRC) Order EA-12-049, "Issuance of Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events" (Reference 1), NextEra Energy Seabrook, LLC (hereafter known as "Seabrook") hereby submits a request for schedule relaxation from the Order requirements for completion of full implementation, from November 2015 to May 30, 2016.

**Order Requirement from Which Relaxation is Requested:**

NRC Order EA-12-049, Section IV.A.2 requires completion of full implementation of the Order requirements no later than two (2) refueling cycles after submittal of the Overall Integrated Plan (OIP), as required by Condition C.1.a, or December 31, 2016, whichever comes first. In accordance with the requirements of the Order, Seabrook submitted the Seabrook Mitigation Strategies Overall Integrated Plan (Reference 2) on February 26, 2013. The Seabrook Mitigation Strategies Overall Integrated Plan milestone schedule identified the planned completion date for full implementation of NRC Order EA-12-049 as November 2015.

**Justification for Relaxation Request:**

Seabrook's original strategy employed the Supplemental Electrical Power System (SEPS), a permanently installed set of two diesel generators and supporting equipment, and the Service Water Cooling Tower, a redundant ultimate heat sink (refer to the original OIP in Reference 2). Following loss of all AC power and normal access to the normal ultimate heat sink, the SEPS would provide AC power to an emergency bus, and the Cooling Tower would then provide cooling to critical loads. This strategy will continue to be employed in every situation where the SEPS and Cooling Tower are available. However, the SEPS and Cooling Tower are not fully protected from the entire spectrum of high wind events, including wind driven missiles. Due to the potential vulnerability of the SEPS and Cooling Tower to this small subset of possible Beyond Design Basis External Events (BDBEEs), a second set of strategies was developed to ensure that all possible BDBEEs can be addressed. These strategies add a complete set of fully protected portable equipment capable of complying with NEI 12-06, independent of SEPS. This plan offers significantly more diversity than simply adding protection to the SEPS and the Cooling Tower. The new set of strategies requires the development and implementation of additional modifications, procedures, and training that were not originally planned when the strategies relied solely on the SEPS and the Cooling Tower. The new strategies were transmitted to the NRC on February 27, 2015 as part of NextEra Energy Seabrook LLC's fourth six-month status report.

The original schedule for implementation of Fukushima strategies allowed 33 months from the time the OIP was submitted to the planned completion in November 2015. November 2015 is the planned end of the second refueling outage after transmittal of the original OIP. From the time of transmittal of the revised OIP in February 2015, the November 2015 due date allows only 9 months to develop and implement the new plan. This implementation time frame is extremely short given the work required to:

- Develop and implement modifications
- Specify, procure and test new portable equipment
- Develop, review and approve new procedures
- Train on the new equipment and procedures

Many efforts are being performed as parallel activities (worked at risk) to reduce the overall implementation duration. Seabrook has used knowledge of other plant's programs, procedures, and experiences to further expedite this effort. By the end of the upcoming refueling outage in November 2015, completed modification efforts are expected to include:

- All outage required FLEX modifications including RCP seals.
- U2 Circulating Water Piping Cistern completion and fill.
- ESF Bus 5 and 6 connections for the NSRC generators.
- SG and RCS makeup connections.
- Refueling strategy pumps installation in the Diesel Generator fuel tank rooms.
- Seismic hardening of the SEPS.

FLEX portable equipment is expected to be received on site, tested, and incorporated into the Seabrook PM Program. This equipment includes:

- 405 kW diesel generator and associated cables
- Flex Low Pressure Pump and associated hose
- Flex High Pressure Pump and associated hose
- Flex Debris Removal and Towing Tractors
- Flex sump pump (to provide water from the U2 Circulating Water Piping Cistern)
- Refueling tanker trailer

Per our current schedule, by the end of the November refueling outage all procedures and program documents will be completed, reviewed, validated, and ready for issuance. All planned training will be complete. Site staffing will be consistent with the site staffing study. The National SAFER Response Centers will be in place and ready to support Seabrook mitigating strategies.

The compressed time frame is challenging project completion. Current items at risk are:

- a) Completion of the modifications to the Service Water Pumphouse to allow its use as the fully protected storage location for the majority of the portable site FLEX equipment.
- b) Completing validation and verification of strategies with respect to equipment stored in the Service Water Pumphouse.

While not expected, emergent issues may challenge other specific project initiatives.

Due to these challenges it is not expected that Seabrook will achieve full implementation of the mitigation strategies in accordance with NRC Order EA-12-049, by the Order requirement date of no later than two (2) refueling cycles after submittal of the overall integrated plan as required by Condition C.1.a, or December 31, 2016, whichever comes first. Accordingly, Seabrook requests that the NRC Order EA-12-049, Section IV.A.2, full implementation requirement date for Seabrook be relaxed to May 30, 2016. Due to the integrated nature of the Seabrook mitigation strategies, partial functional scope compliance is not feasible. Fukushima procedures will be available but not issued until field implementation is complete.

The schedule relaxation for Seabrook results in extending the Seabrook site implementation date seven months from November 2015 to May 30, 2016, which continues to meet the December 31, 2016 backstop date of NRC Order EA-12-049.

There is little risk to safety for this delay for the following reasons:

- a) The extension is short, and still within the limiting date of December 31, 2016.
- b) Existing procedures direct operation of the SEPS and Cooling Tower, and personnel are already trained in their operation. This equipment can address the vast majority of BDBEE events.
- c) Until completion of the Service Water Pumphouse modifications, major portable site FLEX equipment will be stored more than 1200 feet from the SEPS equipment to achieve a measure of protection by spatial separation.
- d) SAFER support will be available to provide equipment if required.
- e) Final implementation will occur prior to the next hurricane season, reducing the risk of a high wind event.
- f) Additionally, the following efforts are planned to be completed prior to the original implementation date:
  - a. SEPS seismic hardening to ensure its availability following a seismic event.
  - b. U2 Circulating Water Piping Cistern completion and filling, providing a protected alternate feed source for the steam generators.
  - c. Major site FLEX equipment receipt and testing, and training of personnel on the use of this equipment.

It should be noted that when this project is complete, Seabrook safety will be enhanced by the diversity of its Fukushima strategies as compared to strategies relying on two sets of redundant equipment.

### **Conclusion:**

As described above, compliance with the NRC Order EA-12-049 schedule requirement for full completion of implementation of mitigation strategies is not expected to be achievable due to the inability to complete all required modifications in the compressed time frame that resulted from the recent significant change in strategy to improve overall safety. Therefore, in accordance with the provisions of Section IV of the Order, NextEra requests relaxation of the requirement described in Section IV.A.2 by extension of the completion date for full implementation to May 30, 2016.

**References:**

1. NRC Order Number EA-12-049, "Issuance of Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," March 12, 2012 (ML 12054A735)
2. NextEra Energy Seabrook LLC's letter to the NRC, "Overall Integrated Plan in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049)," February 26, 2013 (ML 13063A438)
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