UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

May 29, 2013

Mr. Larry Meyer
Site Vice President
NextEra Energy Point Beach, LLC
Point Beach Nuclear Plant
6610 Nuclear Road
Two Rivers, WI 54241-9516

SUBJECT: POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2 – SAFETY ASSESSMENT IN RESPONSE TO RECOMMENDATION 9.3 OF THE NEAR-TERM TASK FORCE RELATED TO THE FUKUSHIMA DAI-ICHI NUCLEAR POWER PLANT ACCIDENT (TAC NOS. ME9978 AND ME9979)

Dear Mr. Meyer:

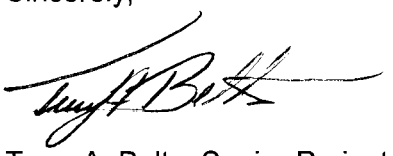
By letter dated March 12, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12053A340), the U.S. Nuclear Regulatory Commission (NRC) issued a request for information (RFI) pursuant Section 50.54, Paragraph (f) of Title 10 of the *Code of Federal Regulations* (10 CFR), regarding Recommendations 2.1 (seismic and flooding evaluations), 2.3 (seismic and flooding walkdowns), and 9.3 (emergency preparedness communication and staffing) of the Near Term Task Force (NTTF) review of insights from the Fukushima Dai-ichi accident. With respect to Recommendation 9.3, Enclosure 5 to the NRC's letter requested licensees to assess their means to power communications equipment onsite and offsite during a prolonged station blackout event and to perform a staffing study to determine the staff required to fill all necessary positions in response to a multi-unit event.

By letter dated October 31, 2012 (ADAMS Accession No. ML12305A538), NextEra Energy Point Beach, LLC (the licensee) provided an assessment of its communications capabilities for the Point Beach Nuclear Plant (Point Beach), Units 1 and 2. Generic technical concerns were issued by the NRC in a letter dated January 23, 2013 (ADAMS Accession No. ML13016A111). The licensee supplemented its response in a letter dated February 22, 2013 (ADAMS Accession No. ML13053A400).

The NRC staff has reviewed the communications assessments for Point Beach and, as documented in the enclosed staff analysis, determined that the assessment for communications is reasonable, and the interim measures, analyzed existing systems, and proposed enhancements will help to ensure that communications are maintained. Furthermore, in coordination with the NTTF, Recommendation 4.2 (mitigating strategies), the NRC staff is planning on following up with the licensee to confirm that upgrades to the site's communications systems have been completed.

If you have any questions, please contact me at (301) 415-3049 or by e-mail at Terry.Beltz@nrc.gov.

Sincerely,



Terry A. Beltz, Senior Project Manager
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Office of Nuclear Reactor Regulation

Docket Nos.: 50-266 and 50-301

Enclosure: As stated

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY ASSESSMENT BY THE OFFICE OF NUCLEAR REACTOR REGULATION

ASSESSMENT OF COMMUNICATIONS IN RESPONSE TO

REQUEST FOR INFORMATION DATED MARCH 12, 2012

NEXTERA ENERGY POINT BEACH, LLC

POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

DOCKET NOS. 50-266 AND 50-301

1.0 INTRODUCTION

By letter dated October 31, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12305A538), NextEra Energy Point Beach, LLC (NextEra, the licensee) provided an assessment of its communications capabilities in response to the U.S. Nuclear Regulatory Commission's (NRC) March 12, 2012, request for information (ADAMS Accession No. ML12053A340) regarding the Near-Term Task Force (NTTF), Recommendation 9.3, on emergency preparedness communications, under Section 50.54(f) to Title 10 to the *Code of Federal Regulations* (10 CFR).

Within the licensee's response letter, an assessment of the current communications systems and equipment to be used during an emergency event was performed to identify any enhancements needed to ensure communications are maintained during and following a beyond design basis large-scale natural event. In this assessment, it was assumed that a large-scale natural event causes: (1) a loss of all alternating current (ac) power; and (2) extensive damage to normal and emergency communications systems both onsite and in the area surrounding the site (i.e., within 25 miles of the site, consistent with guidance endorsed by the NRC in a letter dated May 15, 2012 (ADAMS Accession No. ML12131A043)). The licensee identified interim actions (ADAMS Accession No. ML12163A248) taken during the period of implementation of the planned improvements to the communications systems or procedures.

Background

On March 12, 2012, the NRC issued a letter entitled "Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident." In accordance with 10 CFR 50.54(f), addressees were requested to submit a written response to the information requests within 90 days.

The March 12, 2012, letter, states that if an addressee cannot meet the requested response date, then the addressee must respond within 60 days of the date of the letter and describe the alternative course of action that it proposes to take, including any estimated completion date. In

a letter dated May 10, 2012 (ADAMS Accession No. ML12131A664), the licensee committed to submit their completed communications assessment and implementation schedule by October 31, 2012. In a letter dated June 8, 2012 (ADAMS Accession No. ML12163A248), the licensee also provided their description of any interim actions (discussed in further detail in Section 3.0) that were taken, or are planned to be taken, to enhance existing communications systems power supplies until the communications assessment and the resulting actions are complete. The NRC staff found the licensee's proposed schedule acceptable by letter dated July 26, 2012 (ADAMS Accession No. ML12200A106).

Enclosure 5 of the NRC's March 12, 2012, letter contained specific requested information associated with NRC's NTTF, Recommendation 9.3, for emergency preparedness communications. Specifically, the NRC staff requested that licensees provide an assessment of the current communications systems and equipment used during an emergency event to identify any enhancements that may be needed to ensure communications are maintained during a large-scale natural event and subsequent loss of ac power. The licensee's assessment should:

- Identify any planned or potential improvements to existing onsite communications systems and their required normal and/or backup power supplies;

- Identify any planned or potential improvements to existing offsite communications systems and their required normal and/or backup power supplies;

- Provide a description of any new communications system(s) or technologies that will be deployed based upon a large-scale natural event and damage to communications systems onsite and offsite; and

- Provide a description of how the new and/or improved systems and power supplies will be able to provide for communications during a loss of all ac power.

The letter also asked for licensees to:

- Describe any interim actions that have been taken or are planned to be taken to enhance existing communications systems power supplies until the communications assessment and the resulting actions are complete; and

- Provide a schedule of the time needed to implement the results of the communications assessment.

2.0 REGULATORY EVALUATION

The NRC staff reviewed the licensee's responses to the March 12, 2012, 10 CFR 50.54(f), request for information against the regulations and guidance described below.

2.1 Regulations

Section 50.47, "Emergency plans," to 10 CFR Part 50, sets forth emergency plan requirements for nuclear power plant facilities.

Section 50.47(b) establishes the standards that the onsite and offsite emergency response plans must meet for NRC staff to make a positive finding that there is reasonable assurance that the licensee can and will take adequate protective measures in the event of a radiological emergency. Planning Standard (6) of this section requires that a licensee's emergency response plan contain provisions for communications among response organizations to emergency personnel and the public. Planning Standard (8) requires that the design should include adequate emergency facilities and equipment to support emergency response.

Section IV.D of Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities," to 10 CFR Part 50, requires that a licensee have the capability to notify responsible State and local governmental agencies within 15 minutes after declaring an emergency. The design objective of the alert and notification system shall be to have the capability to complete the alerting and initiate notification of the public within the plume exposure pathway within approximately 15 minutes. This alerting and notification capability will include a backup method of public alerting and notification.

Section IV.E of Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities," to 10 CFR Part 50, states that adequate provisions will be made and described for emergency facilities including at least one onsite and one offsite communications system; and each system shall have a backup power source. These arrangements will include the following:

a. Provision for communications with contiguous State/local governments within the plume exposure pathway emergency planning zone.

b. Provision for communications with Federal emergency response organizations.

c. Provision for communications among the nuclear power reactor control room, the onsite technical support center, and the emergency operations facility; and among the nuclear facility, the principal State and local emergency operations centers, and the field assessment teams.

d. Provisions for communications by the licensee with NRC Headquarters and the appropriate NRC Regional Office Operations Center from the nuclear power reactor control room, the onsite technical support center, and the emergency operations facility.

2.2 Guidance

Nuclear Energy Institute (NEI) 12-01 "Guideline for Assessing Beyond Design Basis Accident Response Staffing and Communications Capabilities," presents a methodology for licensees to analyze their ability to perform critical communications during and after a large-scale natural event. The NRC staff previously reviewed NEI 12-01 (ADAMS Accession No. ML12131A043)

and determined it to be an acceptable method for licensees to use in responding to the NRC's March 12, 2012, information request.

The NRC staff reviewed the licensee's analyses against the assumptions and guidance within NEI 12-01, Sections 2.2, 2.4, and 4. These sections provide a discussion on the assumptions and criteria to be used for a communications assessment.

3.0 TECHNICAL EVALUATION

In its October 31, 2012, letter, the licensee submitted its assessment of communications assuming a large-scale natural event, which would lead to an extended loss of all ac power. This letter included a discussion of required communications links, primary and backup methods of communications, and any identified improvements.

The NRC staff sent a letter dated January 23, 2013 (ADAMS Accession No. ML13016A111) to all operating reactor licensees requesting that eight generic technical issues, derived from NEI 12-01, be analyzed for applicability to their Communications Assessments. NextEra responded to these generic technical issues in a letter dated February 22, 2013 (ADAMS Accession No. ML13053A400).

3.1 Communication Areas Reviewed

3.1.1 Communication Links

The Point Beach Nuclear Plant, Units 1 and 2, currently has communications capabilities with offsite response organizations; the NRC; between licensee emergency response facilities; with field and offsite monitoring teams; and with in-plant and offsite licensee emergency response organization staff. As part of its communications assessment, the licensee determined that certain existing communications system equipment, such as satellite telephones, radios, and the private branch exchange system telephones, would be available after implementation of planned enhancements for the communication links listed above given a seismic, high wind, or flooding event. The final location of the equipment will be consistent with criteria contained within NEI 12-06, "Diverse and Flexible Coping Strategies (FLEX) Implementation Guide," or in seismic class 1 structures. NEI 12-01 discusses that this FLEX criteria is a reasonable definition of protectiveness.

As an interim measure prior to the implementation of all planned enhancements, the licensee purchased additional supplies of portable satellite telephones for the site. Existing site radios will be used in point-to-point communications. Site instructions will be in place to help ensure the availability of the interim measures by providing for the use and charging of the satellite phones and radio batteries by December 15, 2013. These satellite telephones are currently deployed in the site emergency response facilities.

As a planned enhancement, the licensee intends to enhance the communication systems for each link outlined in Section 4 of NEI 12-01. Portable satellite telephones will be utilized as one of the methods for maintaining each offsite communication link. Communications among onsite emergency facilities will primarily use the private branch exchange telephone system with site radios and satellite phones as available backup systems. Onsite and in-plant response teams will primarily utilize radios with the potential for the plant paging system party lines to function as

a backup. The licensee is planning on enhancing the private branch exchange phone system by allowing it to be powered with portable generators. The licensee is planning on enhancing the satellite telephones by storing the telephones in protective areas and installing external antennas with docking stations within emergency response centers. Radios will be enhanced by storing them in protected areas and ensuring that radio repeaters will be available. The licensee also confirmed that communications with offsite response organizations will be maintained with satellite telephones. The licensee will put these enhancements in place with licensee-approved procedures by October 31, 2014.

The NRC staff reviewed the licensee's expected communications links within their communications assessment. In reviewing the licensee's submittal, the NRC staff considered whether it is reasonable that each communication link can be maintained, after the implementation of all planned enhancements, in accordance with the NRC-endorsed guidance of NEI 12-01. The satellite telephones are expected to help maintain communications offsite by their ability to function without offsite infrastructure postulated to be damaged by a large-scale natural event. The radios will help ensure communications in areas of the plant due to its ability to function in point-to-point mode and future work to enhance the availability of radio repeaters. The private branch exchange system is primarily located in an area determined to be protective, and will be provided with a portable generator.

Based on this review, the NRC staff concludes that since the licensee's assessment for the availability of communications systems is reasonable, and planned enhancements are to be made for communications areas to help ensure reliability, the licensee's interim measures and proposed enhancements will help to ensure that communications are maintained consistent with assumptions in the NRC-endorsed guidance of NEI 12-01.

3.1.2 Equipment Location

NextEra analyzed the survivability of existing equipment for large-scale natural events by utilizing FLEX criteria or seismic Class 1 structures for determining the storage of onsite portable satellite phones and radios. This criteria was also used to determine ancillary equipment storage locations, including the generators and battery chargers that will be used to support the interim measures and/or planned enhancements. Modifications have also been made to communications systems to help provide for further measures of availability given a large-scale natural event (i.e., backup power for the radio system). The relocation of equipment for its protection will be completed in alignment with FLEX strategies.

The NRC staff reviewed the licensee's submittal and verified that the licensee considered the equipment location and protection contained within the NRC-endorsed guidance of NEI 12-01. The NRC staff also verified that all equipment discussed in Section 3.1.1 of this document has been analyzed to be available after a large-scale natural event, has a reasonable backup system, or would be stored in a reasonably protected area from seismic, flooding, and high wind events as discussed in NEI 12-01. The NRC staff also ensured that ancillary equipment, such as batteries and fuel supplies would also be protected from seismic, flooding, and high wind events.

Based on this review, the NRC staff considers the licensee's analysis of communications assessment equipment survivability and proposed enhancements for equipment location to be

consistent with the NRC-endorsed guidance of NEI 12-01. This determination of equipment protection supports the conclusion that these measures will help to ensure communications equipment availability for a large-scale natural event.

3.1.3 Equipment Power and Fuel

NextEra analyzed the availability of their communications system power supplies following the loss of all ac power. The licensee proposed a combination of batteries and new generators to power site communications equipment, including the satellite telephones, radio system, and private branch exchange phone system. The site strategies will result in: (1) each satellite telephone having an adequate battery supply for operations and to allow for charging; (2) each credited portable radio having an adequate battery supply for operations and to allow for charging; (3) the ability to charge the private branch exchange telephone and radio systems batteries with a generator; and (4) large amounts of fuel for the generators. It is expected that this equipment is capable of supplying power to support communications for a minimum of 24 hours, based on assumptions for impeded site access. The licensee is planning on having these enhancements to the communication system power supplies completed by October 31, 2014, with approved procedures.

The NRC staff reviewed the licensee's communications assessment power supplies. In reviewing the submittal, the NRC staff finds it reasonable to assume that power for the existing equipment and proposed enhancement equipment, as listed in Section 3.1.1 of this document, would remain available for a 24-hour duration based on the availability of extra batteries and generator fuel and planned proceduralization of charging strategies. Additionally, the licensee's proposed enhancement is in accordance with the NRC-endorsed guidance of NEI 12-01.

Based on this review, the NRC staff considers the licensee's analysis of equipment power and proposed enhancements for equipment power to be consistent with the NRC-endorsed guidance of NEI 12-01. This determination of available equipment power, support the conclusion that these measures will help to ensure communications equipment functionality for a large-scale natural event.

3.1.4 Proceduralization and Training

NextEra confirmed that there are sufficient reserves of equipment to minimize the need of multi-use equipment for different communication functions. Procedures have been developed for the use of the portable satellite telephones. New or modified procedures for communications equipment will be developed for the: (1) refueling of portable generators; and (2) connecting the portable generators (e.g., for charging portable equipment and radio/private branch exchange system batteries). The procedures for generator use will be in-place by October 31, 2014. The periodic testing of the equipment to ensure reliability will be completed in accordance with site procedure EPMP 2.1, "Testing of Communications Equipment," and periodic inventory checks will be completed under site procedure EPMP 1.1B, "Radiation Protection Emergency Preparedness Quarterly Checklist." NextEra states that staff will be trained on the location and use of this communications equipment by October 31, 2014.

Site procedures utilize the public address system (with battery backup) to provide for notification to plant employees of an event. The licensee has procedures in place for emergency response

organization staff self-activation due to major disturbances in the power grid. These site procedures will activate the offsite emergency response organization and notify plant staff.

The NRC staff reviewed the licensee's commitments on the planned quality assurance and maintenance of the equipment and licensee staff training on the use of this equipment. The NRC staff determined that the licensee's submittal is in accordance with the NRC-endorsed guidance of NEI 12-01.

Based on this review, the NRC staff considers the licensee's planned proceduralization of equipment use and licensee staff training to be consistent with the NRC-endorsed guidance of NEI 12-01. This determination of equipment availability and functionality supports the conclusion that these measures will help to ensure communications equipment functionality for a large-scale natural event.

4.0 CONCLUSION

The NRC staff has reviewed the licensee's communications assessment for communications with, or among, the following: offsite response organizations; the NRC; licensee emergency response facilities; field and offsite monitoring teams; and onsite and in-plant response teams. In reviewing the licensee submittals, the NRC staff considered the factors outlined above and determined that licensee's assessment of existing equipment, proposed enhancements, and interim actions were in accordance with the NRC-endorsed guidance of NEI 12-01.

The NRC staff concludes that the licensee's assessment for communications is reasonable, and that the licensee's interim measures and proposed enhancements will help ensure that communications are maintained. Furthermore, in coordination with the NTTF, Recommendation 4.2 (mitigating strategies), the NRC staff is planning on following up with the licensee to confirm that upgrades to the site's communications systems have been completed.

If you have any questions, please contact me at (301) 415-3049 or by e-mail at Terry.Beltz@nrc.gov.

Sincerely,

/RA/

Terry A. Beltz, Senior Project Manager
Plant Licensing Branch III-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos.: 50-266 and 50-301

Enclosure: As stated

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ADAMS Accession No.: ML13135A271 * concurrence via e-mail dated April 11, 2013 NRR-106

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