



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

March 15, 2021

Mr. Michael Strope
Site Vice President
Point Beach Power Plant
NextEra Energy Point Beach, LLC
6610 Nuclear Road
Two Rivers, WI 54241

SUBJECT: POINT BEACH NUCLEAR PLANT, UNIT NOS. 1 AND 2 - LICENSE RENEWAL
REGULATORY AUDIT REGARDING THE ENVIRONMENTAL REVIEW OF THE
SUBSEQUENT LICENSE RENEWAL APPLICATION
(EPID NO. L-2020-SLE-0002)

Dear Mr. Strope:

By letters dated November 16, 2020, (Agencywide Documents Access and Management System (ADAMS) Accession Package No. [ML20329A292](#)), NextEra Energy Point Beach, LLC (NextEra) submitted an application for subsequent license renewal of Renewed Facility Operating License Nos. DPR-24 and DPR-27, Point Beach Nuclear Plant (PBN), Unit Nos. 1 and 2 to the U.S. Nuclear Regulatory Commission (NRC) pursuant to Section 103 of the Atomic Energy Act of 1954, as amended, and part 54 of title 10 of the *Code of Federal Regulations*, "Requirements for renewal of operating licenses for nuclear power plants".

The NRC staff has initiated the environmental review for the subsequent license renewal of PBN, Unit Nos. 1 and 2. The environmental audit will be conducted by NRC staff at the NRC Headquarters due to the Coronavirus Disease public health emergency, during the week of April 5, 2021. The environmental audit activities will be conducted in accordance with the enclosed environmental audit plan (Enclosure 1).

The NRC staff requests the information presented in the environmental audit needs list (Enclosure 2) be made available on the PBN online reference portal (ADAMS Accession No. [ML21005A058](#)), to the extent possible, prior to the audit. A draft schedule of tours and meetings is provided in Enclosure 3.

M. Strobe

- 2 -

If you have any questions, please contact me via e-mail at Phyllis.Clark@nrc.gov.

Sincerely,

/RA/

Phyllis Clark, Nuclear Engineer/Project Manager
Environmental Review License Renewal Branch
Division of Rulemaking, Environmental,
and Financial Support
Office of Nuclear Material Safety
and Safeguard

Docket Nos. 50-266 and 50-301

Enclosures:
As stated

cc w/encls: Listserv

SUBJECT: POINT BEACH NUCLEAR PLANT, UNIT NUMBERS 1 AND 2 - LICENSE RENEWAL REGULATORY AUDIT REGARDING THE ENVIRONMENTAL REVIEW OF THE SUBSEQUENT LICENSE RENEWAL APPLICATION (EPID NO. L-2020-SLE-0002)

DATED: March 15, 2021

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***concurrence via email**

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DATE	03/11/2021	03/11/2021	03/12/2021	03/15/2021

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Audit Plan

Subsequent License Renewal Environmental Review Point Beach Nuclear Plant, Unit Nos. 1 and 2

April 5-8, 2021

**Division of Materials and License Renewal
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission**

SUBSEQUENT LICENSE RENEWAL ENVIRONMENTAL AUDIT PLAN POINT BEACH NUCLEAR PLANT, UNIT NOS. 1 AND 2

1. Background

By letters dated November 16, 2020, (Agencywide Documents Access and Management System Accession Package No. [ML20329A292](#)), NextEra Energy Point Beach, LLC, submitted to the U.S. Nuclear Regulatory Commission (NRC or staff) an application to renew Renewed Facility Operating License Nos. DPR-24 and DPR-27 for Point Beach Nuclear Plant (PBN), Unit Nos. 1 and 2. The staff is reviewing the information in the environmental report (ER) of the subsequent license renewal application (SLRA) per Title 10 of the *Code of Federal Regulations* (10 CFR) Part 51.

The NRC staff is conducting an environmental audit of the PBN site to improve understanding, to verify information, and to identify information for docketing to support the preparation of the environmental impact statement. Specifically, the NRC staff will be identifying pertinent environmental data, reviewing the facility, and seeking clarifications regarding information provided in the ER.

2. Environmental Audit Bases

License renewal requirements for environmental reports are specified in 10 CFR Part 53, "Postconstruction environmental reports." Licensees are required by 10 CFR 51.53(c) Operating license renewal stage. (1) Each applicant for renewal of a license to operate a nuclear power plant under part 54 of this chapter shall submit with its application a separate document entitled "Applicant's Environmental Report—Operating License Renewal Stage." Review guidance for the staff is provided in NUREG–1555, Supplement 1, Revision 1, "Standard Review Plans for Environmental Reviews for Nuclear Power Plants: Supplement 1 – Operating License Renewal."

The NRC staff is required to prepare a site-specific supplement to NUREG–1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants." During the scoping process required in 10 CFR Part 51, NRC staff is required to define the proposed action, identify significant issues which must be studied in depth, and to identify those issues that can be eliminated from further study.

3. Environmental Audit Scope

The scope of this environmental audit is to identify new and significant issues and issues which can be eliminated from further study. The NRC staff will also identify environmental resources that must be described and evaluated in the Supplemental Environmental Impact Statement. Audit team members will review the documents and other requested information made available on the PBN online reference portal Identified on the environmental audit needs list (Enclosure 2) and discuss any questions and additional information needs with the applicant's subject matter experts.

4. Information and Other Material Necessary for the Environmental Audit

As identified on the environmental audit needs list (Enclosure 2).

5. Environmental Audit Team Members and Resource Assignments

The environmental audit team members and their assignments are shown in the table below.

Discipline	Team Members
Environmental Review Supervisor	Robert Elliott, NRC/NMSS
Environmental Project Manager	Phyllis Clark, NRC/NMSS
Replacement Power Alternatives	Robert Hoffman, NRC/NMSS
Land Use and Visual Resources	Caroline Hsu, NRC/NMSS Peyton Doub, NRC/NMSS
Meteorology, Air Quality, and Noise	Nancy Martinez, NRC/NMSS
Geologic Environment	Kevin Folk, NRC/NMSS
Water Resource – Groundwater	Daniel Barnhurst, NRC/NMSS Lifeng Guo, NRC/NMSS
Water Resource - Surface Water	Kevin Folk, NRC/NMSS Nancy Martinez, NRC/NMSS
Terrestrial Resource	Caroline Hsu, NRC/NMSS Peyton Doub, NRC/NMSS
Aquatic Resource	Briana Grange, NRC/NMSS
Section 7 Consultation with FWS	Briana Grange, NRC/NMSS
Section 7 Consultation with NMFS for ESA and EFH	Briana Grange, NRC/NMSS
Historic and Cultural Resources (Section 106 Consultation)	Nancy Martinez, NRC/NMSS Robert Hoffman, NRC/NMSS
Socioeconomics	Jeffrey Rikhoff, NRC/NMSS
Human Health	Donald Palmrose, NRC/NMSS
Microbiological Hazards	Donald Palmrose, NRC/NMSS
Postulated Accidents	Phyllis Clark, NRC/NMSS Jerry Dozier, NRR/DRA
Environmental Justice	Jeffrey Rikhoff, NRC/NMSS
Waste Management	Phyllis Clark, NRC/NMSS
Spent Nuclear Fuel	Phyllis Clark, NRC/NMSS
Fuel Cycle	Phyllis Clark, NRC/NMSS
Terminating Power Plant Operations and Decommissioning	Kevin Folk, NRC/NMSS
Greenhouse Gas Emissions and Climate Change	Nancy Martinez, NRC/NMSS Kevin Folk, NRC/NMSS
Cumulative Impacts	Robert Hoffman, NRC/NMSS
Severe Accident Mitigation Alternatives	Jerry Dozier, NRC/NRR

6. Logistics

The environmental audit will be conducted at the NRC Headquarters due to the Coronavirus Disease public health emergency, from April 5-8, 2021. An entrance meeting will be held with

plant management at the beginning of the audit. An exit meeting will be held at the end of this audit.

7. Special Requests

The NRC staff requests that the applicant make available on the PBN online reference portal, the information identified on the environmental audit needs list (Enclosure 2). PBN staff who are subject matter experts in the disciplines identified on the environmental audit needs list should be available for interviews and tours.

8. Deliverables

An audit summary report will be issued by NRC staff within 90 days from the end of the environmental audit.

**LICENSE RENEWAL ENVIRONMENTAL AUDIT NEEDS LIST
POINT BEACH NUCLEAR PLANT, UNIT NOS. 1 AND 2**

Please be prepared to discuss and make the following available during the environmental audit.

Tours – via photos or video

Please provide photographs or videos of the following site features:

Title or Number	Features Observed	Requested By
1. General site	<ul style="list-style-type: none"> a. Exterior grounds b. Meteorology tower c. Transmission lines d. Historic and cultural sites e. Possible alternative power generation locations f. Interim storage of spent nuclear fuel (ISFSI) g. Plant views from publicly accessible areas (e.g., State Highway 42, Lake Michigan) 	All
2. Plant intake and discharge	<ul style="list-style-type: none"> a. Circulating water pumphouse and intake structure b. Bar grates, traveling screens, screen wash system (as observable) c. Fish return d. Discharge structure(s) e. Accessible permitted outfall locations f. Shoreline erosion protection 	Kevin Folk Daniel Barnhurst Lifeng Guo Briana Grange Donald Palmrose
3. Radwaste	<ul style="list-style-type: none"> a. Liquid radwaste system- discharge locations b. Gaseous radwaste system- discharge locations 	Phyllis Clark Donald Palmrose
4. Groundwater	Monitoring wells Water supply wells United States Geological Survey (USGS) wells	Daniel Barnhurst Lifeng Guo

Audit Meetings

Please provide subject matter expert(s) and/or contractor(s) prepared to discuss the following topics corresponding with the information. These discussions will be used to resolve or clarify any outstanding data needs or questions arising from the environmental audit.

- Aquatic Resources, Terrestrial Resources, Special Status Species and Habitats (can be combined into one ecology meeting or separated out, depending on applicant and contractor availability).
- Surface water hydrology including surface water withdrawals (e.g., circulating water system), effluent discharges, and water quality monitoring (TENTATIVE; can also be combined with aquatic resources).
- Replacement Power Alternatives.
- Land Use and Visual resources [meeting is a placeholder dependent on adequacy of data need responses.]
- Historic and Cultural Resources.
- Air quality, particularly air permits and emission inventories associated with facility operations, and stationary and mobile sources of air pollutants.
- Groundwater Hydrology, quality, and impact assessment portions of the Environmental Report (ER) and the plant's groundwater protection program and affected groundwater resources. Please also discuss the location(s) of any ground water seeps, yard drain sumps, or their sampling locations.
- Radiological Environmental Monitoring Program, liquid (radiological and non-radiological) and gaseous effluent release programs, and waste management (radiological and non-radiological) programs
- Radiological protection and radwaste systems.
 - Radiation Protection Program: Overview of the program with emphasis on the as low as (is) reasonably achievable (ALARA) program to control worker radiation exposure (annual dose goals and status). Are there any proposed changes or upgrades to the program being considered during the license renewal term?
 - Radioactive solid waste: review how the plant plans to handle low-level radioactive waste (Class A, B, and C, mixed waste, and spent nuclear fuel) during the license renewal term (onsite storage, potential expansion of storage facilities, and disposal options). Are there any proposed changes or upgrades to the program being considered during the license renewal term?
 - Radioactive gaseous and liquids effluents: review how the plant processes radioactive effluents to maintain radiation doses to the public to levels that are ALARA. Are there any proposed changes or upgrades to the program being considered during the license renewal term?

- In section 3.6.4.2.2 of the ER it was stated that between 2015 and 2019, there has been one inadvertent nonradioactive release that would be classified as an incidental spill. Please provide a brief overview of the spill and the corrective actions put in place to prevent a reoccurrence.
 - Status of Federal Coastal Zone Management Act consistency certification (can be combined with ecology meetings) [meeting is a placeholder dependent on adequacy of data need responses.]
- Cumulative Impacts
 - Severe Accident Mitigation Alternatives

Questions and Document Needs

Specific questions, requests, and document needs are provided below by resource area.

Replacement Power Alternatives (Robert Hoffman)

Audit Needs

ALT-1 ER Section 7.2.2.2.2 makes reference to a second combination alternative, and Section 9.7 refers to “The natural gas combined cycle plant and solar photovoltaic (PV) array, new nuclear units, and hybrid plants of onshore wind, solar PV, and battery storage alternatives presented in Chapter 7...” However, further analysis of a combination alternative with an onshore wind component is not presented in the ER. Please discuss any known siting or policy constraints that would eliminate a combination alternative that includes onshore wind from further consideration.

Document Needs

None

Land Use and Visual Resources (Caroline Hsu/Peyton Doub)

Audit Needs

LU-1 Section 3.1.2 (p 3-3) of the ER discusses individual leases for agricultural use within the Point Beach Nuclear Plant (PBN) site. Please provide more information on these leases.

- a) How many leases exist?
- b) What are the primary agricultural products?
- c) Do the agricultural crops produced, or practices used in the leased areas of the PBN site differ from those of surrounding Manitowoc and Brown counties as described in ER Section 3.2.2 (p 3-13)?
- d) Are there any unusual animals, facilities, agricultural practices, game harvests, or food processing operations either onsite or in the neighboring counties?

- LU-2 Regarding the PBN and Two Creeks solar facilities being constructed partially on the PBN site:
- a) Please describe the staged plans for development and completion.
 - b) Please provide information about the revegetation plan after construction is completed.
- LU-3 Section 4.1.1.3 (p 4-9) of the ER states, "additional spent nuclear fuel and low--level radioactive waste generated during the license renewal term could require the construction of new or expansion of existing onsite storage facilities." Regarding the possible need to build or expand onsite nuclear waste storage (e.g., an ISFSI):
- a) Where on the PBN site might this storage facility be located? Please provide a map if possible.
 - b) What is the total land area that may be cleared for operation of the waste storage facility?
 - c) What is the total land area that may be cleared for construction of the waste storage facility, including land for staging and waste disposal?
 - d) Will any of the above land be along stream or water banks?
 - e) What is the current land use of the land that NextEra may choose for construction and operation of the storage facility? Will it be previously disturbed land, or land of some other category?
- LU-4 Please provide information on any commercially exploitable mineral resources on the PBN site.
- LU-5 Section 3.7.1.3 (p 3-103) of the ER mentions commercial fishing on the Manitowoc-Sheboygan Watershed. Please provide more information on the commercial fish and invertebrate catch in the vicinity of PBN
- LU-6 Does NextEra allow hunting on the property?
- LU-7 In Section 3.1.4 (p 3-4), the ER states that the National Oceanic and Atmospheric Administration has proposed designation of the Wisconsin Shipwreck Coast National Marine Sanctuary along the Lake Michigan coast bordering PBN. How might this Federal action create cumulatively significant impacts in PBN land use during the period of subsequent license renewal (SLR)?
- LU-8 In Section 3.2.1 (p 3-12), the ER mentions a solar array fence line.
- a) Please provide a map showing where this solar array fence line will be located.
 - b) How much area within the PBN site will be enclosed inside the solar array fence line?
 - c) What was the land use category of the PBN land before it was placed inside the solar array fence line? Was it previously undisturbed? Or some other category?
- LU-9 Appendix F to the ER contains NextEra's letter to Kathleen Angel of the Wisconsin Coastal Management Program. The letter requests the Wisconsin

Coastal Management Council's concurrence on NextEra's Coastal Zone Management Act consistency certification for the SLR. Please provide the letter of concurrence from the Wisconsin Coastal Management Council.

- VIS-1 Request photos of PBN taken from publicly accessible areas where plant structures or operations are visible. Specifically, please provide the following:
- a) Photos of PBN taken from State Highway 42
 - b) Photos of PBN taken from publicly accessible areas of Lake Michigan
 - c) Photos of PBN taken from any other publicly accessible area where plant structures or operations are visible
- VIS-2 Regarding the nearest resident to the PBN site (living 1.2 miles away from the site center):
- a) Can this resident see any PBN building or light source?
 - b) Are there other residents or regular visitors to the area who may be affected by PBN aesthetic impacts?
- VIS-3 Section 3.9.7 (p. 3-205) and Table 3.1-1 (p 3-5) in the ER show a high density of outdoor recreation areas in close vicinity to PBN. For example, there are two parks and a national trail within 2 miles of PBN and 10 total recreation areas within a 6-mile radius.
- a) Are PBN structures or operations visible from any of these nearby recreation areas? For instance, could a hiker or hunter stumble upon a view of a PBN building or operations (light)?
 - b) Does the part of Lake Michigan near PBN attract much recreation (e.g., swimmers, boaters, fishers etc.)? Can people recreating in Lake Michigan see PBN structures or operations?
- VIS-4 Are there homes on the Lake Michigan shorefront where residents could see PBN lights or buildings?

Document Needs

None

Air Quality and Noise (Nancy Martinez)

Audit Needs

- AQN-1 Section 3.3.3.2 of the ER identifies that emissions reports are submitted to the Wisconsin Department of Natural Resources (WDNR) each year. Provide a copy of PBN's annual air emission statements submitted to WDNR for 2014-2020.

- AQN-2 Table 3.3-10 of the ER presents PBN reported annual air emissions for nitrogen oxide and ozone.
- a) Clarify if NEPB reports annual emissions for carbon monoxide, sulfur oxides, or particulate matter (both particulate matter less than 10 microns and 2.5 microns) to WDNR for permitted air emission sources.
 - b) Does NEPB have estimated annual emissions for carbon monoxide, sulfur oxides, or particulate matter (both particulate matter less than 10 microns and 2.5 microns) for PBN permitted air emission sources? If so, provide emissions for these criteria pollutants.
- AQN-2 Provide a copy of the 2018 application NEPB submitted to WDNR related PBN's air permit revision.
- AQN-3 Provide a copy of the 2017 notice of non-compliance and the 2017 notice of violation associated with air permit 436034500-P30. Discuss the steps and actions taken, as stated in the ER, that NEPB took to return to compliance with permit conditions.
- AQN-4 The ER states that NEPB has not received noise complaints related to PBN plant operations between 2014-2019. Has NEPB received any noise complaints since 2019?
- AQN-5 Provide a discussion of primary off-site noise sources in the immediate vicinity of PBN.

Document Needs

- AQN-A WDNR. 2018a. Air Pollution Control and Operation Permit, Operation Permit No. 436034500-P32. November 19, 2018.

Water Resource – Groundwater (Daniel Barnhurst/ Lifeng Guo)

Audit Needs

- GW-1 Explain redactions to Section 14.5 of Appendix D (Groundwater Monitoring Section 14.5) for reference document PBN 2020A: 2019 Annual Monitoring Report submitted to NRC (April 27, 2020).
- GW-2 Provide a description of the groundwater flow system in the shallow aquifer and the deep drinking water aquifer in the Silurian dolomite at and in the vicinity of the site. If available, include a description or illustration of:
- a. groundwater levels in each of the supply wells
 - b. flow directions in the deep aquifer,
 - c. the degree of confinement between the shallow and deep aquifer and the potential for vertical flow,
 - d. the potential for offsite flow
 - e. potentiometric surface map for the deep drinking water aquifer for the site vicinity, and
 - f. well logs for the 5 onsite water supply wells

- GW-3 ER Section 4.12.4.5 states that “it is not anticipated that groundwater withdrawal increases above the reported quantities during the proposed SLR operating term.”
- a) Provide the maximum permitted pumping rate for each onsite supply well.
 - b) Discuss whether there are any foreseeable conditions or situation under which groundwater withdrawal increases above 100 gpm during the renewal term.
- GW-4 Provide an update to the groundwater usage information in ER Table 3.6-6 (from USGS 2020d), if available and discuss whether groundwater usage in the vicinity of the plant is expected to increase or decrease during the renewal term.
- GW-5 Section 3.6.3.2 states that, “There are currently no discharges to groundwater from PBN requiring permits by regulatory agencies”. Explain if this is expected to remain true throughout the renewal period.

Document Needs

- GW-A 4.5-GW-A PBN, 2019a PBN Nuclear Plant Units 1 & 2, Updated Final Safety Analysis Report. October 2019. (This document does not seem to be in the ER References folder in the electronic reading room).

Water Resource – Surface Water (Kevin Folk/Nancy Martinez)

Audit Needs

- SW-1 Clarify whether NextEra will seek coverage under a valid General Wisconsin Pollutant Discharge Elimination System (WPDES) industrial stormwater discharge permit when the current permit expires in May 2021; provide a copy of the Notice of Intent for coverage or the new general permit, if issued (ER Sections 3.6.1.2.2 and 9.5.3.3, Table 9.1-1).
- SW-2 Provide an update to PBN’s surface water withdrawal summary to include data for calendar year 2020 (ER Section 3.6.3.1, Table 3.6-4a).
- SW-3 Confirm and clarify the rated pump capacity (in gpm) of the circulating water pumps, screen wash pumps, and service water pumps that serve each unit (ER Sections 2.2.3.1 et seq.)
- SW-4 The ER summarizes historical regulatory infractions including notices of violation issued to PBN for the period 2015-2019 (ER Sections 3.6.1.2, 9.3). As applicable, provide an updated summary of and describe any Notices of Violation; nonconformance notifications; or related infractions received from regulatory agencies associated with permitted effluent discharges, sanitary sewage systems, groundwater or soil contamination, as well as any involving spills, leaks, and other inadvertent releases (e.g., petroleum products, chemicals, or radionuclides) received since 2019. In addition, summarize any self-reported WPDES permit infractions over the last five years (2016- 2020) (i.e., including any disclosed in Discharge Monitoring Reports). Provide copies of relevant correspondence to and from the responsible regulatory agencies.

SW-5 Provide a brief description of the nature and frequency of the bank stabilization activities conducted at PBN; identify when such activities were most recently performed (ER Section 3.6.1.2.4).

Document Needs

SW-A Renewal application for WPDES individual permit #WI-0000957-08-0 (ER Section 9.5.3.2) [for docketing].

SW-B Graphical illustration of the current, as-built configuration of the intake crib, if available (ER Section 2.2.3.1)

Terrestrial Resource (Caroline Hsu/Peyton Doub)

Audit Needs

TER-1 Section 9.5.15 (p. 9-16) of the ER mentions that commercially approved herbicides such as Roundup® are used to control vegetation. Section 3.7.2.5 (p. 3-115) discusses herbicide use to keep transmission line corridors clear. Please provide more information on NextEra's use of herbicides in ground maintenance. Are there procedures for recognizing and avoiding rare, endangered, or threatened plant species? Please include any guidance documents, if available.

TER-2 Does NextEra have an avian monitoring and protection plan? If so, please provide this plan.

TER-3 Does NextEra keep data or estimates on the impacts of elevated structures on bird collisions or bird nesting? If so, please provide this data for the past 5 years.

TER-4 Section 3.7.7.1.3 (p. 3-129) of the ER states, "Eagles are known to nest in the vicinity of the PBN site."

a) By eagles, does this mean bald eagles and/or golden eagles?

b) Have any bald or golden eagle individuals, nests, or eggs ever been found on the PBN site? If so, how many and when?

TER-5 Regarding the PBN and Two Creeks solar facilities that will be located partially on PBN Nuclear site, what entity will be responsible for managing the impacts on terrestrial ecology of the solar facilities in the areas that lie inside the PBN boundary? For example, what entity will be determining guidance and practice on herbicide application, wildlife management, and maintenance of important habitats, as well as ensuring compliance with laws such as Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act? Will these terrestrial ecology management functions on PBN land leased to the solar facilities be undertaken by NextEra, or by the operator of each solar facility?

TER-6 Has NextEra performed any ecological surveys for State -protected species or their habitats on the PBN site within the past 5 years? If so, please provide copies of such surveys.

- TER-7 Is NextEra aware of any ecological surveys for State-protected species or their habitats performed by other organizations (e.g., Federal, State, or local agencies, non-profit organizations, educational institutions, etc.) on or in the vicinity of the PBN site within the past 5 years? If so, please provide copies of such surveys.
- TER-8 Has NextEra performed any ecological surveys for non-Federal- and non- State-listed birds protected by the Migratory Bird Treaty Act or the Bald and Golden Eagle Act or their habitats on the PBN site within the past 5 years? If so, please provide copies of such surveys.
- TER-9 In Section 3.2.1 (p 3-12), the ER mentions a solar array fence line. Will the solar array fence line interrupt possible species travel corridors?

Document Needs

None

Aquatic Resource (Briana Grange)

Audit Needs

- AQ-1 ER Section 4.6.2.4 discusses a 2004–2008 study that modeled temperature increases, and area, volume, and behavior of the thermal plume under extended power uprate (EPU) conditions. Has NextEra performed any confirmatory studies or measurements to confirm the accuracy of this study’s findings following implementation of the EPU? If so, please provide copies of such studies.

Document Needs

None

Special Status Species & Habitats (Briana Grange)

Audit Needs

- SSH-1 ER Section 3.7.7.1.3 states: “Annual surveys are conducted for nesting piping plovers on the beaches adjacent to the PBN site.” Please provide the following information related to these surveys:
- a. When and why did NextEra begin these surveys? Please include discussions of any related permits, agreements, or collaborative efforts with Federal, State, or local agencies or other organizations.
 - b. The ER states that no breeding pairs or nests were identified on the beaches associated with the PBN site from 2015–2019. Is NextEra aware of any breeding pairs or nests on the beaches near PBN either before 2015 or since 2019?
 - c. Please provide copies of the past five available years of piping plover nesting surveys for NRC staff review.

- SSH-2 Has NextEra performed any ecological surveys for federally protected species or their habitats on the PBN site within the past five years? If so, please provide copies of such surveys for NRC staff review.
- SSH-3 Is NextEra aware of any ecological surveys for federally protected species or their habitats performed by other organizations (e.g., Federal, State, or local agencies, non-profit organizations, educational institutions, etc.) on or in the vicinity of the PBN site within the past five years? If so, please provide copies of such surveys.
- SSH-4 The WDNR Endangered Resources Review is a screening of a proposed project area for potential impacts to endangered resources like rare plants, animals, and natural communities. These reviews are conducted for a wide variety of land management, development and planning projects. The WDNR recommends that, as a general rule of thumb, any land or water-disturbing project should be reviewed for impacts to rare species. Did NextEra request such a review from the WDNR in connection with preparation of its SLR application? If so, please provide a copy of this review for NRC staff review.
- SSH-5 ER Attachment C contains letters from NextEra to the U.S. Fish and Wildlife Service and the WDNR concerning special status species and habitats. Please provide copies of any responses or subsequent correspondence between NextEra and these agencies for NRC staff review.
- SSH-6 The National Oceanic and Atmospheric Administration (NOAA) is reviewing a proposal to designate approximately 1,000 square miles of Lake Michigan between Two Rivers, WI and Port Washington, WI as the Wisconsin Shipwreck Coast National Marine Sanctuary (see <https://sanctuaries.noaa.gov/wisconsin/>). If NOAA designates this national sanctuary prior to the NRC's subsequent license renewal decision, the NRC will be required to consult with NOAA under Section 304(d) of the National Marine Sanctuaries Act to ensure that the proposed license renewal is not likely to destroy, cause the loss of, or injure any sanctuary resource. Federal actions subject to consultation may be inside or outside the boundary of a national marine sanctuary. In support of such a consultation between the NRC and NOAA, please provide an evaluation of the potential impacts of PBN SLR on sanctuary resources of the proposed Wisconsin Shipwreck Coast National Marine Sanctuary. Sanctuary resources include any living or nonliving resource of a national marine sanctuary that contributes to the conservation, recreational, ecological, historical, educational, cultural, archaeological, scientific, or aesthetic value of the sanctuary.

Document Needs

None

Historic and Cultural Resources (Nancy Martinez/Bob Hoffman)

Audit Needs

- HCR-1 On November 10, 2020 NEPB issued letters to the Wisconsin Historical Society and Federally recognized tribes regarding PBN's subsequent license renewal application. Please provide copies of any correspondence or communications that NEPB has had with these parties subsequent to issuance of the November 10, 2020 letters.
- HCR-2 The ER identifies that PBN has committed to avoiding four previously identified sites which have not been recommended ineligible for the National Register of Historic Places (NRHP) within the site property. To whom has NEPB made this commitment to? Provide documentation of the commitment.
- HCR-3 Provide a copy of the five (5) cultural resource surveys conducted within the PBN property identified in Section 3.8.5 and Table 3.8-1 of the ER.
- HCR-4 Section 3.8 of the ER states that there are 14 entries, either isolated finds or sites, within the PBN property listed on the Wisconsin archaeological sites inventory (ASI). Table 3.8-1 of the ER identifies that a June 2004 onsite cultural resource survey found 15 isolates, 1 prehistoric site, and 3 historic sites. Table 3.8-1 of the ER also identifies that a 2018 Phase 1 Survey identified one isolate. Clarify whether the findings from the June 2004 and November 2018 cultural resource surveys are listed in the Wisconsin's ASI.

Document Needs

- HCR-A PBN. 2010. Point Beach Nuclear Plant Procedures Manual. "Archaeological, Cultural, & Historic Resources." FP-RP-ENV-01. October 25, 2010.
- HCR-B AVD (AVD Archaeological Services). 2004 "A Phase I Archaeological Survey at the Point Beach Nuclear Power Plant in Manitowoc County, Wisconsin." Report of Investigations No. 104284. September 2004.

Human Health (Donald Palmrose)

Audit Needs

- HH-1 Provide PBN subject matter expert to discuss compliance with Occupational Safety and Health Administration (OSHA) regulation 29 CFR 1926.964, Overhead lines and live-line barehand work, with its limit of induced current of 6 mA as it pertains to the safety discussion in ER Section 4.9.2.4.

Document Needs

- HH-A Provide staff access to the transmission line survey discussed in ER Section 3.10.2 on page 3-213.

- HH-B Provide staff access to the PBN's procedure manual for electrical safety that is discussed in ER Section 3.10.2 on page 3-213 for being in the vicinity of exposed circuits for a range of voltages including 345kV.
- HH-C Provide staff access to the version of NESC with associated clearance guidelines relied upon by PBN in the transmission line survey mentioned in Section 4.9.2.4 of the ER for determining the human health impacts from electrical shock would be SMALL.

Microbiological Hazards (Donald Palmrose)

Audit Needs

- MH-1 Is NextEra aware of any algae or bacterial blooms in the near vicinity of the plant (See Figure 1, PBN 6-mile Vicinity, of the NextEra letter to the Division of Public Health, Wisconsin Department of Health Services dated November 20, 2020)?

Document Needs

- MH-A Provide staff access to the response by the Division of Public Health, Wisconsin Department of Health Services, to NextEra letter of November 10, 2020 provided in ER Enclosure E for subject of "RE: NextEra Energy PBN, LLC – Point Beach Nuclear Plant Units 1 and 2 Subsequent License Renewal."

Postulated Accidents (Phyllis Clark/Jerry Dozier)

Audit Needs

- DBA-1 Section 4.15.1, Category 1 Issue—"Design-Basis Accidents" of the ER concludes "No new and significant information was identified for this issue." Was there any process or screening for the new information applied to warrant this conclusion?

Document Needs

None

Waste Management (rad and non-rad) (Phyllis Clark)

Audit Needs

- WM-1 In section 3.6.4.2.1 of the ER, PBN stated that between 2015 and 2019, there have been no unplanned/inadvertent radioactive liquid or gaseous releases. Have there been any reportable unplanned releases of radioactive materials which would trigger a notification requirement since the ER was written? Provide a description of releases. (How do you plan to handle unplanned releases?)

WM-2 In section 3.6.4.2.2 of the ER PBN stated that between 2015 and 2019, there has been one inadvertent nonradioactive release that would be classified as an incidental spill. Below is the description of the release.

“On December 20, 2018, NEPB notified the WDNR of contaminated soil which was found during site excavation activities conducted on December 7, 2018. As part of cathodic protection installation, 10 boreholes were excavated between the circulating water pump house and the turbine building. One of the 10 boreholes had evidence of soil contamination. A sample was obtained from 3-4 feet below land surface and sent to a lab for diesel range organics (DRO), gasoline range organics (GRO), and metals analysis. Results from the lab analysis (DRO 171 mg/kg and GRO 44.9 mg/kg) confirmed diesel and gas organics in the soil sample. Approximately 600 pounds of soil were removed from the contaminated excavation hole and disposed at Waste Management’s Ridgeview landfill. A confirmation soil sample was collected on February 25, 2019 and analyzed for volatile organic compounds (VOCs). No VOCs were detected above the laboratory’s detection limit. The impacted soil from the excavation was disposed at Waste Management’s Ridgeway landfill. (PBN 2019d). There was no indication of any active leakage. This information, combined with the location of the excavation, supports that this discovery is related to a minor historical leak or spill. The WDNR issued a “No Further Action” letter on March 20, 2019. (WDNR 2019a)”

Have there been any reportable inadvertent release which would trigger a notification requirement since the ER was written? Provide a description of releases. (How do you plan to handle unplanned releases?)

WM-3 PBN is subject to the reporting provisions of 40 CFR Part 110 as it relates to the discharge of oil in such quantities as may be harmful pursuant to Section 311(b)(4) of the Federal Water Pollution Control Act. Any discharges of oil in such quantities that may be harmful to the public health or welfare or the environment must be reported to Environmental Protection Agency’s (EPA’s) National Response Center. In section 9.5.3.6 of the ER, the applicant discusses reportable spills, and states that for the 5-year period of 2015-2019 there were no reportable spills. Have there been any reportable spills which would trigger this notification requirement since the ER was written? Please provide a description of any spills.

WM-4 PBN is subject to the reporting provisions of Wisconsin Administrative Code NR 706.11 as it relates to discovering the release of a regulated substance from an underground storage tank containing a hazardous substance. Any such events must be reported to the WDNR. This reporting provision requires that any release of regulated substance from an underground storage tank containing a petroleum product be reported to the VDEQ. In section 9.5.13.5, Reportable Spills §62.1-44.34:19, of the ER, the applicant states that there have been no releases at PBN that have triggered this notification from 2015–2019. Have there been any reportable spills which would trigger this notification requirement since the ER was written? Please provide a description of any spills.

Document Needs

WM-A Provide procedures related to the radioactive and nonradioactive Waste Management Program, Waste Minimization Program, and Stormwater Pollution Prevention Plan.

New and Significant Information (Jerry Dozier)

Audit Needs

N&S-1 Discussion of the process for screening for new and significant information.

Document Needs

None

Cumulative Impacts (Bob Hoffman)

Audit Needs

CI-1 Please provide name, description, location, and status of any additional **past**, present, or reasonably foreseeable projects or actions that have been identified since the ER was prepared.

CI-2 ER Section 3.1.4 indicates that the Two Creeks solar facility is currently under construction and operation is scheduled to begin December 2020; and construction of the PBN solar facility began in the summer of 2020 with operation scheduled to begin in October 2021. Please indicate the current status of each of these projects and identify what portion of each (acreage) would be located within the PBN site boundary.

Document Needs

None

Severe Accident Mitigation Alternatives (Jerry Dozier)

Audit Needs

S-1 Section 4.15.2 (page 4-65) of the ER provides a general discussion of the core damage frequency (CDF) reductions at PBN. The staff would like to better understand the probabilistic risk assessment revisions and changes to the risk models since the 40- to-60-year license renewal application (focusing on changes made at the plant that have significantly reduced or increased risk) and some of the quantitative results supporting the general discussion on ER page 4-65.

S-2 NEI 17-04 Section 3.1 "Data Collection" specifies:

"Use the latest risk models that are available for internal events (including internal flooding) and for each of the external events contributors identified for

evaluation in NEI 05-01 ["Severe Accident Mitigation Alternatives (SAMA) Analysis Guidance Document," Revision A, November 2005]."

NEI 05-01 specifies:

"The IPEEE [Individual Plant Examination of External Events] identified the highest risk externally initiated accident sequences and potential means of reducing the risk posed by those sequences. Typically, the following external events were evaluated:

1. Internal fires
2. Seismic events
3. Other external events such as high wind events, external flooding, transportation and nearby facility accidents"

Explain how "Other external events such as high wind events, external flooding, transportation and nearby facility accidents" were considered in the PBN SAMA New and Significant Evaluation? Discuss recommendations to reduce risk due to each of these external events.

- S-3 Please be prepared to discuss any PBN or other facility external event SAMAs evaluated.
- S-4 What are the hazards included in the CDF used in ER Table 4.15-2?
- S-5 Section 4.15.2 of the PBN ER describes PBN extended power uprate and measurement uncertainty recapture power uprates. What was the change in CDF and large early release frequency (LERF) as a result of these power uprates Table E-14 of the 2013 Generic Environmental Impact Statement (GEIS) presents the change in LERF calculated by each licensee that has been granted a power uprate of greater than 10 percent. Table E-14 shows that the increase in LERF ranges from a minimal impact to an increase of about 30 percent (with a mean of 10.5 percent). Please provide the specific CDF and LERF values to confirm values are within the values calculated in the GEIS.
- S-6 Section 4.15.2 provides a summary of the information assessed for new and significant information. Did NEEPB evaluate all of the items provided in the 2013 GEIS SAMA Summary Table E-19 (including low power, uncertainties, and the BEIR Report)?
- S-7 Please be prepared to briefly talk about the population increase as it relates to being within the values evaluated in the GEIS.
- S-8 Tables E4.15-1 and E4.15-2 of the ER provides the groupings and reduction in maximum benefit of SAMAs. Of particular interest is the Auxiliary Feedwater and Steam Generator Tube Rupture cases. Please be prepared to discuss these results.
- S-9 Please be prepared to briefly talk about the statement on ER page 4-70 stating:

The evaluations were selected conservatively to provide assurance that they are bounding. In some cases, some measures (e.g., internal flooding LERF) yielded an individual reduction greater than 50 percent, but when combined with the other hazards, no SAMA resulted in a collective CDF or significant source term category group frequency LERF reduction of greater than 50 percent.

Document Needs

S-A PBN SAMA new and significant basis document (currently on Portal)

Point Beach Environmental Audit Schedule

Monday, April 5, 2021

START	END	ACTIVITY
9:00 am	9:30 am	Entrance meeting between NRC and NextEra
9:30 am	4:00 pm	Virtual tours/virtual meetings between NRC and NextEra subject matter experts (SMEs)

Tuesday, April 6, 2021

START	END	ACTIVITY
9:00 am	4:00 pm	Virtual tours/virtual meetings between NRC and NextEra subject matter experts (SMEs)

Wednesday, April 7, 2021

START	END	ACTIVITY
9:00 am	4:00 pm	Virtual tours/virtual meetings between NRC and NextEra subject matter experts (SMEs)

Thursday, April 8, 2021

START	END	ACTIVITY
9:00 am	12:00 pm	Virtual tours/virtual meetings between NRC and NextEra subject matter experts (SMEs)
2:00 pm	2:30 pm	Exit meeting between NRC and NextEra