

From: Sedlacek, Michael <Sedlacek.Michael@epa.gov>
Sent: Tuesday, December 21, 2021 3:03 PM
To: PointBeach-SLRSEIS Resource
Subject: [External_Sender] EPA Comment Letter - Point Beach SEIS
Attachments: Point Beach Nuclear Reactor Relicensing DSEIS 12-17-2021.pdf

Ms. Clark,

Attached are EPA's comments on the Point Beach Relicensing SEIS. Feel free to contact me if you have any questions or concerns.

Sincerely,

Mike Sedlacek
Environmental Scientist
Tribal and Multimedia Programs Office
U.S. Environmental Protection Agency - Region 5
77 W. Jackson Blvd (RM-19J), Chicago, IL 60604
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
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CHICAGO, IL 60604-3590

December 17, 2021

REPLY TO THE ATTENTION OF:
Mail Code RM-19J

Phyllis Clark
U.S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Mail Stop T-4B72
Washington, DC 20555-0001

Re: Draft Supplemental Environmental Impact Statement for Issuance of Subsequent Renewed Facility Operating Licenses DPR-24 and DPR-27 for the Point Beach Nuclear Plant, Units 1 and 2, Two Rivers, Manitowoc County, Wisconsin – CEQ No. 20210169

Dear Ms. Clark:

The U.S. Environmental Protection Agency has reviewed the referenced Draft Supplemental Environmental Impact Statement (DSEIS), which was prepared by the Nuclear Regulatory Commission (NRC). Our comments are made pursuant to our authorities under the National Environmental Policy Act (NEPA), Council on Environmental Quality regulations (40 CFR Parts 1500-1508), and Section 309 of the Clean Air Act.

Point Beach is a two-unit, pressure-water nuclear power plant located in Manitowoc County, Wisconsin, on the shore of Lake Michigan. The current facility operating license expires on October 5, 2030 (Unit 1) and March 8, 2033 (Unit 2). Point Beach is owned and operated by NextEra Energy, LLC (the applicant). The applicant applied to NRC for a 20-year extension to its operating license, including constructing additional source(s) of energy production within the existing facility.

Four alternatives have been proposed:

- No Action Alternative. NRC does not issue the subsequent renewed facility operating licenses for Point Beach Units 1 and 2. Those units will be shut down at or before the expiration of the current renewed facility operating licenses on October 5, 2030 (Unit 1), and March 8, 2033 (Unit 2);
- New Nuclear Alternative (Small Modular Reactor). In addition to the two existing small modular reactor units, a new small modular reactor unit will be constructed for a total of approximately 1,200 megawatts of energy (MWe) produced;
- Natural Gas Combined-Cycle Alternative. In addition to the two existing small modular reactor units, a new natural gas-fired unit will be constructed for a total of approximately 1,200 MWe produced; and;
- Combination Alternative (Small Modular Reactor, Solar, Onshore Wind). In addition to

the two existing small modular reactor units, 200 MWe of solar arrays, and 200 MWe of on-shore wind turbines will be constructed for a total of approximately 1,200 MWe produced.

NRC has selected the New Nuclear Alternative as the proposed project's preferred alternative. In our March 3, 2021 letter, EPA provided comments on NRC's Notice of Intent (NOI) to produce an Environmental Impact Statement (EIS). In that letter, we identified issues pertaining to air emissions mitigation information, plain language and transparency, and plans for construction, renovation, or demolition activities. We appreciate NRC addressing our comments on plain language and transparency, as well as plans for proposed construction, renovation, and demolition activities. Based on our review of the DSEIS, we reiterate and expand upon our air emissions mitigation comment, and offer additional comments that may benefit the proposed project holistically.

Air Emissions Mitigation Information

On page 3-21 of the DSEIS, NRC explains that air quality and air emission best management practices (BMP) "could be used" as part of the proposed action. We urge NRC to promote that the applicant commit to using air quality BMPs as part of the proposed project and reflect such commitments in the forthcoming FSEIS. Several recommendations are included in an enclosure entitled, *U.S. Environmental Protection Agency Construction Emission Control Checklist*.

Energy Efficiency in New Construction

We understand no demolition or refurbishment/renovation activities are being proposed. For new structures, we encourage the use of energy-efficient and/or sustainable building materials, such as south-facing skylights and windows, motion-sensored lighting, and Energy Star certified windows and doors. Section 438 of the Energy Independence and Security Act provides examples of how to integrate energy efficiency into Federal projects.

Pollinators and Native Plant Species

Pollinators are critical contributors to our nation's economy, food system, and environmental health. Vegetation within the project area can provide vital habitat for pollinators, providing food, shelter, and connections to other patches of habitat. Where feasible, we recommend NRC urge the applicant to plant native species and pollinator-friendly plants on the project grounds.

Structural Resiliency for Extreme Weather Events

Section 3.3.1 notes that Wisconsin is subject to occasional severe weather events, however, the DSEIS does not fully analyze climate change and resiliency to extreme weather events. The U.S. Global Change Research Program reports that across the Midwestern U.S., statistically significant increases in flood risk frequency and severity are well documented and attributed mostly to increases in precipitation. Extreme heat, heavy downpours, and flooding will affect infrastructure.¹ The project may benefit from a fuller analysis of potential impacts of extreme weather and resiliency measures, as described below. This is particularly relevant under NEPA due to the associated environmental and health impacts that could occur if the project's structural integrity is not maintained. We recommend the FSEIS include the following:

- Consider precipitation, flooding, and temperature conditions in the project upgrades;

¹ U.S. Global Change Research Program, 2017 Climate Science Special Report: Fourth National Climate Assessment (NCA4), Volume 1, page 241.

- Assess whether project infrastructure would likely be resilient to such changes. This is particularly important because of the long-term nature of the proposed license; and:
- If needed, incorporate resiliency and adaptation plans or measures. Consider heat and precipitation stressors when determining appropriate time intervals for such checks. Doing so may help prevent unintended environmental impacts. Additionally, use EPA's Climate Change Adaptation Resource Center as a tool to identify appropriate mitigation strategies, available at: <https://www.epa.gov/arc-x>.

Please email us the Final Supplemental Environmental Impact Statement (FSEIS) when it becomes available. If you have any questions, please contact me at 312-886-2910 or westlake.kenneth@epa.gov or Mike Sedlacek of my staff, lead project reviewer, at 312-886-1765 or sedlacek.michael@epa.gov.

Sincerely,

Kenneth A. Westlake
Deputy Director, Tribal and Multimedia Programs Office
Office of the Regional Administrator

Cc: Mark Ackerman, USEPA, Region 5, Water Division
Eugene Jablonowski, USEPA, Region 5, Superfund and Emergency Response Division
John Ketchum, NextEra Energy

Encl: U.S. Environmental Protection Agency Construction Emission Control Checklist

U.S. Environmental Protection Agency
Construction Emission Control Checklist

Diesel emissions and fugitive dust from project construction may pose environmental and human health risks and should be minimized. In 2002, EPA classified diesel emissions as a likely human carcinogen, and in 2012 the International Agency for Research on Cancer concluded that diesel exhaust is carcinogenic to humans. Acute exposures can lead to other health problems, such as eye and nose irritation, headaches, nausea, asthma, and other respiratory system issues. Longer term exposure may worsen heart and lung disease.² We recommend NRC consider the following protective measures and commit to applicable measures in the FSEIS.

Mobile and Stationary Source Diesel Controls

Purchase or solicit bids that require the use of vehicles that are equipped with zero-emission technologies or the most advanced emission control systems available. Commit to the best available emissions control technologies for project equipment in order to meet the following standards.

- On-Highway Vehicles: On-highway vehicles should meet, or exceed, the EPA exhaust emissions standards for model year 2010 and newer heavy-duty, on-highway compression-ignition engines (e.g., long-haul trucks, refuse haulers, shuttle buses, etc.).³
- Non-road Vehicles and Equipment: Non-road vehicles and equipment should meet, or exceed, the EPA Tier 4 exhaust emissions standards for heavy-duty, non-road compression-ignition engines (e.g., construction equipment, non-road trucks, etc.).⁴
- Locomotives: Locomotives servicing infrastructure sites should meet, or exceed, the EPA Tier 4 exhaust emissions standards for line-haul and switch locomotive engines where possible.
- Marine Vessels: Marine vessels hauling materials for infrastructure projects should meet, or exceed, the latest EPA exhaust emissions standards for marine compression-ignition engines (e.g., Tier 4 for Category 1 & 2 vessels, and Tier 3 for Category 3 vessels).⁵
- Low Emission Equipment Exemptions: The equipment specifications outlined above should be met unless: 1) a piece of specialized equipment is not available for purchase or lease within the United States; or 2) the relevant project contractor has been awarded funds to retrofit existing equipment, or purchase/lease new equipment, but the funds are not yet available.

Consider requiring the following best practices through the construction contracting or oversight process:

- Establish and enforce a clear anti-idling policy for the construction site.
- Use onsite renewable electricity generation and/or grid-based electricity rather than diesel-powered generators or other equipment.
- Use electric starting aids such as block heaters with older vehicles to warm the engine.
- Regularly maintain diesel engines to keep exhaust emissions low. Follow the manufacturer's recommended maintenance schedule and procedures. Smoke color can signal the need for maintenance (e.g., blue/black smoke indicates that an engine requires servicing or tuning).
- Where possible, retrofit older-tier or Tier 0 nonroad engines with an exhaust filtration device before it enters the construction site to capture diesel particulate matter.
- Replace the engines of older vehicles and/or equipment with diesel- or alternatively-fueled engines certified to meet newer, more stringent emissions standards (e.g., plug-in hybrid-electric vehicles, battery-electric vehicles, fuel cell electric vehicles, advanced technology locomotives, etc.), or with zero emissions electric systems. Retire older vehicles, given the significant contribution of vehicle emissions to the poor air quality conditions. Implement programs to encourage the voluntary removal from use and the marketplace of pre-2010 model year on-

² Carcinogenicity of diesel-engine and gasoline-engine exhausts and some nitroarenes. *The Lancet*. June 15, 2012

³ <http://www.epa.gov/otaq/standards/heavy-duty/hdci-exhaust.htm>

⁴ <http://www.epa.gov/otaq/standards/nonroad/nonroadci.htm>

⁵ <http://www.epa.gov/otaq/standards/nonroad/marineci.htm>

highway vehicles (e.g., scrappage rebates) and replace them with newer vehicles that meet or exceed the latest EPA exhaust emissions standards, or with zero emissions electric vehicles and/or equipment.

Fugitive Dust Source Controls

- Stabilize open storage piles and disturbed areas by covering and/or applying water or chemical/organic dust palliative, where appropriate. This applies to both inactive and active sites, during workdays, weekends, holidays, and windy conditions.
- Install wind fencing and phase grading operations where appropriate, and operate water trucks for stabilization of surfaces under windy conditions.
- When hauling material and operating non-earthmoving equipment, prevent spillage and limit speeds to 15 miles per hour (mph). Limit speed of earth-moving equipment to 10 mph.

Occupational Health

- Reduce exposure through work practices and training, such as maintaining filtration devices and training diesel-equipment operators to perform routine inspections.
- Position the exhaust pipe so that diesel fumes are directed away from the operator and nearby workers, reducing the fume concentration to which personnel are exposed.
- Use enclosed, climate-controlled cabs pressurized and equipped with high-efficiency particulate air (HEPA) filters to reduce the operators' exposure to diesel fumes. Pressurization ensures that air moves from inside to outside. HEPA filters ensure that any incoming air is filtered first.
- Use respirators, which are only an interim measure to control exposure to diesel emissions. In most cases, an N95 respirator is adequate. Workers must be trained and fit-tested before they wear respirators. Depending on the type of work being conducted, and if oil is present, concentrations of particulates present will determine the efficiency and type of mask and respirator. Personnel familiar with the selection, care, and use of respirators must perform the fit testing. Respirators must bear a NIOSH approval number.

NEPA Documentation

- Per Executive Order 13045 on Children's Health,⁶ EPA recommends the lead agency and project proponent pay particular attention to worksite proximity to places where children live, learn, and play, such as homes, schools, and playgrounds. Construction emission reduction measures should be strictly implemented near these locations in order to be protective of children's health.
- Specify how impacts to sensitive receptors, such as children, elderly, and the infirm will be minimized. For example, locate construction equipment and staging zones away from sensitive receptors and fresh air intakes to buildings and air conditioners.

⁶ Children may be more highly exposed to contaminants because they generally eat more food, drink more water, and have higher inhalation rates relative to their size. Also, children's normal activities, such as putting their hands in their mouths or playing on the ground, can result in higher exposures to contaminants as compared with adults. Children may be more vulnerable to the toxic effects of contaminants because their bodies and systems are not fully developed and their growing organs are more easily harmed. EPA views childhood as a sequence of life stages, from conception through fetal development, infancy, and adolescence.