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Docket: NRC-2020-0277

Notice of Intent to Conduct Scoping Process and Prepare Environmental Impact Statement NextEra Energy Point Beach, LLC; Point Beach Nuclear Plant, Unit Nos. 1 and 2

Comment On: NRC-2020-0277-0194

NextEra Energy Point Beach, LLC; Point Beach Nuclear Plant, Units 1 and 2

Document: NRC-2020-0277-DRAFT-0235

Comment on FR Doc # 2021-24407

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General Comment

See attached file(s)

Attachments

220102_nrc-2020-0277-019_reject_point_beach_nuclear_plant_20-year_license_extension

Sunday, January 2, 2022

Office of Administration
Mail Stop: TWFN-7-A60M
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
ATTN: Program Management, Announcements and Editing Staff

Subject: Reject Point Beach nuclear power plant 20-year license extension -- Notice of Intent To Conduct Scoping Process and Prepare Environmental Impact Statement; NextEra Energy Point Beach, LLC, Point Beach Nuclear Plant, Units 1 and 2 (Docket ID: NRC-2020-0277-0001)

To U.S. Nuclear Regulatory Commission Chairman Hanson and commissioners:

The license renewal, allowing 20 years of operations at the Point Beach Nuclear Plant (PBNP), should not be permitted, due to the increasing risk of pressurized thermal shock through-wall fracture of the highly embrittled reactor pressure vessel. Point Beach Unit 2 has the worst-embrittled reactor pressure vessel of any pressurized water reactor in the country. Decades of additional neutron radiation bombardment will only increase the risk of a pressurized thermal shock, through-wall fracture, core meltdown, and catastrophic release of hazardous radioactivity. I strongly urge the U.S. Nuclear Regulatory Commission to reject this proposal to extend the license for operations at Point Beach.

*"The ultimate test of a moral society is the kind of world that it leaves to its children."
-- Dietrich Bonhoeffer*

For the general public concerned with the potential license extension for the two reactors at the PBNP, participation has been difficult and fraught with obstacles for adequate public participation. Common sense and seemingly logical thinking and expression by the general public has most often been met with such concerns being relegated to some other part of the regulatory body's apparatus, at some other time, so that instead of having a meaningful discussion of the important issues at hand, like reactor vessel embrittlement and additional high level waste being created on the shore of Lake Michigan, public concerns are channeled into a 'regulatory' process gap that obscures the public voice. Our concerns regarding embrittlement dangers, climate change, truly renewable alternative energy options, and the economic impact related to Power Purchase Agreements somehow are seemingly irrelevant, as their purview is someplace else than this licensing proceeding.

The technological level for public participation is also sadly lacking. Instead of the ease and convenience of the many Zoom-like communication programs available today, the agency charged with being fully up-to-date in an important regulatory capacity asks the general public to participate in an antiquated two step communications process, which requires both an internet computer connection and an active telephone line for the hours-long proceedings.

It is also worth noting that the section on climate change needs to be completely rewritten so that it is based on the most current data from the Intergovernmental Panel on Climate Change—the "[AR6 Climate Change 2021: The Physical Science Basis](#)," published August 2021. Since the current PBNP licenses extend until 2030 and 2033, there is plenty of time

for the NRC to get up-to-speed with the latest in climate science. The most recent IPPC Report referenced in the climate change section of NRC's Draft Generic EIS is from 2007. It is unacceptable for the NRC to present fourteen-year-old data as a sound scientific basis for projecting what climate conditions will be at PBNP 32 years into the future—that is a 46 year knowledge gap. Data from 2021 is available on the internet—using it makes it only a 32 year knowledge gap about actual climatic conditions at the site of the two atomic reactors operating on the shore of Lake Michigan.

The immediate and imminent impacts of climate change on operations at PBNP are new categories of consideration for an EIS, and much of the science and observed changes are recent phenomenon, which underscores why the most current data must be used and why this topic must receive a fresh and new appraisal of conditions. Fourteen year old data is not acceptable.

The number of extreme weather events has increased dramatically in the last decade. The August 2020 derecho event in Iowa damaged the Duane Arnold Nuclear Reactor facilities, which narrowly escaped a catastrophic nuclear accident. Point Beach is similarly vulnerable to derechos, tornados and extreme weather events.

Lake level fluctuations and larger storm surges contribute to an increase in erosion along the shores of Lake Michigan, threatening reactor operations. Meanwhile, over 1,000 metric tons of nuclear waste are stored onsite on the shoreline of Lake Michigan at PBNP. Lake Michigan recorded a record low lake level in 2013, and only seven years later, recorded a record high lake level in 2020.

The section on "Alternatives Actions" to be considered is completely inadequate, in part, because if the license at PBNP is not renewed, the alternatives considered do not include the use of wind power—either onshore or offshore—or energy conservation. Two of the three proposed alternatives require implementation of Small Modular Reactors (SMRs), reactors which do not exist and are not currently available. In fact, SMRs are unlikely to ever exist as a viable source of electricity, as they require decades of research and development to find out if the new designs will even work and then even more time to scale up mass production of SMRs. Safety concerns of SMRs would also need to be considered.

There must be at least one Alternative Action plan based on 100% renewable energy sources. As with climate change science and knowledge, many developments in solar, wind, storage and energy conservation have taken place and proven themselves in recent years; this knowledge is available and must be considered as reasonable replacement alternatives.

Environmental damage to the ecosystem in Lake Michigan related to intake of almost one billion gallons of Lake Michigan per day, and the discharge of over 900 million gallons of heated water (24°F above ambient lake temperature) daily from the reactors is not scientifically addressed in the draft EIS. Water intake kills fish, fish larvae, fish eggs and other aquatic organisms. The NRC's EIS authors must include updated quantitative data on PBNP's damage to the aquatic ecosystem and cumulative effects on Lake Michigan now and in the "foreseeable" future. Heated water discharge from PBNP's 'once through' cooling system is not the Best Technology Available (BTA). Installing cooling towers, long the industry standard, would reduce use of lake water by 85%.

The “foreseeable future” was considered by NextEra and the NRC to be only until 2053 and does not take into account that the radioactive waste needs to be safeguarded for thousands of years nor the effects on the environment from PBNP’s eventual decommissioning. Foreseeable future in the EIS document is defined as “Reasonably foreseeable future actions are those that would occur through the end of power plant operation, including the period of extended operation. Therefore, the cumulative impacts analysis considers potential effects through the end of the current license term, as well as through the end of the 20-year subsequent license renewal term” (page page 247/369 of the EIS). This limited scope of the foreseeable future does not adequately account for the cumulative effects and extended effects of the operation of the Point Beach Nuclear Reactors.

The EIS contains an **inadequate assessment of risk to human health** in the event of a severe nuclear accident at PBNP (particularly if unmitigated, i.e., a reactor core meltdown). The current EIS for PBNP references the NRC’s The State of the Art Reactor Consequences Analysis ([SOARCA](#)). See Appendix F 4.2, pp 354-355/369. The EIS conclusion—“As a result, the calculated risks of public health consequences of severe accidents modeled in SOARCA are very small.” (pp. 355/369)—would appear extremely flawed. The modeling SOARCA uses is greater than 15 years old. Additionally, MELCOR from 1991 (and last reviewed by the NRC in 2006) assesses an accident at Surry, another Westinghouse Pressurized Water Reactor similar to Point Beach Units 1 and 2, but this is not an assessment of PBNP specifically. SOARCA assesses only the risk of individual cancer deaths, not cancer morbidity. Cancer morbidity is the risk of contracting cancer from excess radiation exposure. Nor does it include estimates of excess deaths in individuals who would be evacuated from their homes and die from lack of accessible diagnosis and treatment of chronic conditions or the increase in significant mental illness for those displaced, some of what is being noted for the declining health of US populations during the Covid-19 pandemic. (See <https://www.thelancet.com/action/showPdf?pii=S0140-6736%2821%2900560-2>). Nor does SOARCA address accidents related to stored fuel.

“A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise.”
-- Aldo Leopold

Again, I strongly urge the U.S. Nuclear Regulatory Commission to reject this proposal to extend the license for operations at Point Beach.

Thank you for your consideration of my comments. Please do NOT add my name to your mailing list. I will learn about future developments on this issue from other sources.

Sincerely,
Christopher Lish
San Rafael, CA