

SUNI Review Complete
Template=ADM-013
E-RIDS=ADM-03

ADD: Phyllis Clark, Bill
Rogers, Kevin Folk,
Stacey Imboden, Mary
Neely
Comment (185)
Publication Date:2/1/2021
Citation: 86 FR 7747

As of: 3/9/21 3:58 PM
Received: March 03, 2021
Status: Pending_Post
Tracking No. klu-dwsn-wbya
Comments Due: March 03, 2021
Submission Type: Web

PUBLIC SUBMISSION

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-2020-0277-0001

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

Document: NRC-2020-0277-DRAFT-0190

Comment on FR Doc # 2021-02001

Submitter Information

Name: Ann Behrmann

Address:

Madison, WI, 53726

Email: atbehrma@wisc.edu

Phone: 608-669-6809

General Comment

Docket ID NRC-2020-0277

Comments for the NRC on EIS scoping for License Extension request for Point Beach Nuclear Plant Units 1 and 2 by Ann Behrmann MD, Pediatrician, Madison WI and Treasurer, Physicians for Social Responsibility Wisconsin atbehrma@wisc.edu

see attached file

Attachments

Behrmann comments for scoping EIS Point Beach

Comments for the NRC on EIS scoping for License Extension request for Point Beach Nuclear Plant Units 1 and 2 by Ann Behrmann MD, Pediatrician, Madison WI and Treasurer, Physicians for Social Responsibility Wisconsin atbehrma@wisc.edu

March 3, 2021

My comments are on these issue headings:

I. Health of Vulnerable Populations

I request that this updated EIS consider the impact of radiation on vulnerable populations—pregnant women, infants and children—who are living, working, going to childcare or school and recreating within the 10-mile radius of the Point Beach Nuclear Plant.

I understand that radioactive monitoring is done periodically during normal plant operations to measure radioactive releases into air, water and soil. The public should understand that there is no “safe level” of radiation exposure and that currently acceptable levels of radiation exposure are based on the Reference man, a 20-30 year old Caucasian male, not a pregnant woman, infant or a child.

See this research by Dr. Ian Fairlie, Commentary: childhood cancer near nuclear power stations <https://ehjournal.biomedcentral.com/track/pdf/10.1186%2F1476-069X-8-43.pdf> which looks at epidemiologic studies of the incidence of childhood leukemia in children under 5 years of age living near to nuclear power plants, both the studies in Germany and in 50+ other studies. He explains the problems inherent in accurate measurement of dose estimates, but acknowledges the fact that air emissions from power plants spike during fuel exchanges. As a pediatrician, I understand that there are particularly vulnerable times during fetal development for particular organ systems and that many of these organs (brain, bone, GU, renal) and physiologic systems (neurologic, cardiovascular, endocrine and immunologic) continue to develop after birth into childhood, adolescence, and for the brain, into early adulthood, it is clear that pregnant women, infants and young children are more sensitive to radiation discharges than the reference man.

For this reason, I request that the EIS review the collected air, water, soil and vegetation, milk and fish measurements (from both the records submitted by PBNP to the NRC and the Wisconsin Department of Human Services over the operational life (Unit 1—1970 to present and Unit 2—1973 to present) that correspond to the of the Point Beach Nuclear Power Plant Units 1 and 2 refueling periods, approximately every 18 months on a staggered schedule. Since it is clear that fuel rod exchanges, done for each plant every 18 months, are likely to cause spikes in radioactive releases, I request that **both** the Wisconsin Department of Human Services and those responsible for operation of Point Beach Nuclear Plant and radiation monitoring for the NRC should commit to:

1) Measure the radioactive releases into air, water and soil during each refueling cycle and publish this information easily accessible and in a timely manner online.

2) Be responsible for public notification prior to each refueling cycle, particularly for vulnerable populations who live, work and recreate within this 10 mile radius—including those swimming, fishing and camping at Point Beach State Forest, and others recreating at the areas below approximately 6 miles from Point Beach Nuclear Plant (below table from NextEra's most recent document:

<https://www.nrc.gov/docs/ML2032/ML20329A248.pdf>)

Table 3.1-1 Federal, State, and Local^(a) Lands Totally or Partially within a 6-Mile Radius of PBN

Name	Management	Distance ^(b)	Direction	Nearest Place	County
Two Creeks Town Park	Local	2	NNW	Two Creeks	Manitowoc
Two Creeks Park	State	2	NNW	Two Creeks	Manitowoc
Ice Age National Scenic Trail ^(c)	Federal	2	SSE	Mishicot	Manitowoc/Kewaunee
Pietroske Waterfowl Production Area ^(d)	Federal	3	South	Mishicot	Manitowoc
Two Creeks Waterfowl Production Area	Federal	3	West	Two Creeks	Manitowoc
Two Creeks Buried Forest State Natural Area	State	3	North	Two Creeks	Manitowoc
Point Beach State Forest ^(e)	State	4	South	Mishicot	Manitowoc
Randolph Street Mini Park	Local	5	WSW	Mishicot	Manitowoc
Rawley Point Lighthouse	Federal	5	SSE	Mishicot	Manitowoc
Mishicot Village Park	Local	6	WSW	Mishicot	Manitowoc

(ArcGIS 2020; GDW 2020; IATA 2020; NPS 2020a; USCB 2020d; USDA 2020a; USL 2020; WDNR 2020a)

a. List is based on best available public information and includes lands that are totally or partially located within a 6-mile radius of PBN.

b. Distances are approximate miles (rounded to the nearest mile and calculated based on the PBN center point and land centroid data).

c. The distance reported for this portion of the Ice Age Trail is based on the closest point to the PBN center point.

d. The distance reported for the Pietroske Waterfowl Production Area is based on the closest point of the northern parcel boundary to the PBN center point.

e. The distance reported for Point Beach State Forest is based on the closest point of the property boundary to the PBN center point.

II. Emergency planning for accidental release of excess radioactivity

I also encourage the EIS to consider examining and updating evacuation plans for populations within a 50-mile radius in the event of excessive accidental radioactive releases. This includes the Cities of Green Bay (which, during a worst case scenario, include should evacuation plans during a Green Bay Packer game with >81,000 capacity inside Lambeau Field and many more fans tailgating outside in Lambeau's parking lot and adjacent streets), Manitowoc, Sheboygan and Appleton as well as farms, smaller towns, schools and daycares and Point Beach State Forest.

At present, information on radiologic emergencies is difficult to access online readily during an emergency and, at present, only through NextEra

<https://www.nexteraenergyresources.com/content/dam/neer/us/en/pdf/pbn-safety-information.pdf>

which the general public may not recognize as the owners of Point Beach.

Both of the links from the above PDF are broken:

<https://www.co.manitowoc.wi.us/departments/emergency-management/Facebook.com/ManitowocESD>

or are considered a security risk:

<https://www.co.kewaunee.wi.gov/EmergencyManagementFacebook.com/KewCoEM/>

Both Kewanee and Manitowoc Counties website or Facebook accounts have either no information on radiologic accidents or out of date information (as the 2018 Calendar on the Manitowoc website <https://www.co.manitowoc.wi.us/media/2872/2018-pbnp-calendar.pdf>). No available information details the use of Potassium Iodide to protect those exposed through an accident at Point Beach Nuclear Plant from developing thyroid cancer, something that anyone living or working within the 10 mile radius of Point Beach Nuclear Plant should have knowledge of and have immediately available if directed to use by local emergency health authorities (for more information see <https://www.cdc.gov/nceh/radiation/emergencies/ki.htm>).

The most recent emergency planning document concerning emergency training for health resources within the 50 mile radius of Point Beach Nuclear Plant that exists on the NRC site is this PDF: <https://www.nrc.gov/docs/ML1802/ML18025B324.pdf>

After Action Report/ Improvement Plan Exercise Date - September 19 & 20, 2017 Radiological Emergency Preparedness (REP) Program. The previous exercise listed was for a single day, September 15, 2015, approximately 2 years previous.

Have there been Emergency planning exercises in the past 3 ½ years? If so, this is **not** found on the NRC website or on NextEra's information. There are 2 health facilities that were part of the 2017 exercise, Holy Family Memorial Hospital and Aurora BayCare Medical Center. Do they have trained personnel knowledgeable about decontamination and treatment of victims in a possible radiation accident? There are 2 excellent articles that they should have on hand, printed out as well as easily accessible on the internet:

<https://pediatrics.aappublications.org/content/pediatrics/142/6/e20183000.full.pdf>

Technical Statement--Pediatric Considerations Before, During, and After Radiological or Nuclear Emergencies

<https://pediatrics.aappublications.org/content/pediatrics/142/6/e20183000.full.pdf>

and shorter Policy Statement from the AAP in addition to CDC guidance:

In addition to these links, the general public (not just workers at PBNP) should be advised that there is also available free potassium iodide for those living within 10 mile radius of Point Beach Nuclear Plant— <http://www.anbex.com/free-ki-distribution/>

These pediatric articles should supplement the CDC information on radiologic emergencies and be supplied to both the Manitowoc and Kewanee Emergency Services and both hospitals that would care for victims: <https://www.cdc.gov/nceh/radiation/emergencies/index.htm>

Along with the WDHS document on Radiological Emergency Preparedness:

<https://dma.wi.gov/DMA/wem/preparedness/radiological-preparedness>

Here is what I could find on the NRC website—from now 11 years ago re Emergency Plans

Emergency Plan Manual, Revision 53, from 12/09/2009 which hopefully has been updated more recently. <https://www.nrc.gov/docs/ML1434/ML14342A150.pdf>

My asks for the EIS scoping would be to ;

1) Examine when the next Emergency Plan exercise will be held with the same participants as 9/17-18/2018.

2) Investigate if the health emergency responders (Manitowoc and Kewanee Counties and the Holy Family Memorial Hospital in Manitowoc and Aurora BayCare Medical Center in Green Bay) and health professional staff who would take care of contaminated workers and community members are properly trained and have on hand (print and on their computers) the most up to date information on evidence based treatment of victims from a radiologic (and possibly fire/thermal blast) accident event.

3) Determine who would be notified in case of accidental release of excessive radiation and would be responsible PUBLICALLY to give the residents and those who work and recreate in the 50 mile radius of PBNP information about oral Potassium Iodide (KI) therapy to prevent thyroid cancers AND where those exposed can access KI supplies within 4 hours of exposure.

Finally the NRC should assure that their public documents for normal releases of radioactive substances from the PBNP be made accurately and easily available to the general public. Until mid February, Radioactive Effluent and Environmental Reports from 2017-2019 (and possibly prior years) were misfiled as reports for Prairie Island rather than Point Beach (as of 2/15/2021).

In addition the Wisconsin DHS has not filed the reports of radiation monitoring for PBNP since 2017 (apparently still in process of review for the years 2018 and 2019). This also adds to a general lack of public information on Point Beach normal radiation releases post 2017.

<https://www.dhs.wisconsin.gov/library/P-00442.htm>

III. Embrittlement of Point Beach Unit 2, increasing risk of accidental release from pressure vessel.

In NRC documents from 2013, Unit 2 at Point Beach, along with Palisades Nuclear Plant across Lake Michigan was noted to be 2 of the most embrittled reactors in the US. Palisades is set up for decommissioning.

1) I ask that the EIS include an evaluation ‘autopsy’ of Palisades, a pressurized water reactor similar to Point Beach, by examining Palisade’s internal Capsules or Coupons to see directly (not by mathematical modeling) the extent of embrittlement of the vessel and to extrapolate ,with visual and engineering direct evidence, how much risk there is for Pressurized Thermal Shock should there need to be emergency sudden over-cooling of the Point Beach Unit 2

which could lead to cracking of the reactor pressure vessel, a loss of coolant type meltdown with resultant release of radioactive materials directly into Lake Michigan.

Lake Michigan is the source of drinking water for more than 10 million people and radiation pollution with its direct connection to all the Great Lakes would be catastrophic for more than 80 million people in the US and Canada that rely on this water for drinking, agriculture, industry and more.

I am very concerned about the socio-economic impacts to the community if an accident occurs. What would happen to people's livelihoods? What would happen to property values? What would happen to the fishing and agricultural industry? What would the economic consequences be for the county and please specify the indirect socioeconomic consequences on property tax revenues and the State of Wisconsin as a whole? Would NextEra compensate the county and people into perpetuity?

https://thebulletin.org/2021/02/big-money-nuclear-subsidies-and-systemic-corruption/?utm_source=Newsletter&utm_medium=Email&utm_campaign=MondayNewsletter02152021&utm_content=NuclearRisk_BigMoney_02122021

IV. Examination of Thermal Damage to the aquatic ecosystem of Lake Michigan from Point Beach's normal operation.

PBNP's continuous use of massive amounts of Lake Michigan water for cooling, between 247,000 and 375,000 Gallons Per Minute of water. Depending on the month of the year, water can be discharges at temperatures much higher (up to 30 degrees F) than the ambient lake temperature on its surface. Kewaunee Counties are Karst topography and in the last decade, the number of Consolidated Animal Feeding Operations (CAFOs) have proliferated in this area of Wisconsin, contaminating over 1/3 of all private wells with bovine E. Coli 0157:H7, the cause of deadly Hemolytic Uremic Syndrome in humans and making this well water non potable (drinking and bathing) for humans and livestock.

<https://www.sierraclub.org/sites/www.sierraclub.org/files/sce-authors/u2196/CAFO%20White%20Paper%20final.pdf>

CAFOs plus invasive species like Zebra Mussels along with temperature increases due to Climate Change affects have increased deadly cyanobacteria (Blue Green Algae) blooms in the Great Lakes.

1) There needs to be an updated examination of thermal effects of heat discharge, particularly in the summer, from Point Beach Nuclear Plants Units 1 and 2 into Lake Michigan's aquatic ecosystem.

This could be done by the experts on freshwater from the Center for Limnology of the University of Wisconsin-Madison

<https://limnology.wisc.edu/> or the UW-Milwaukee School of Freshwater Science
<https://uwm.edu/freshwater/>

It seems also that there are missing certifications for the Point Beach Nuclear Plant from the Wisconsin Department of Natural Resources.

2) These certifications need to be filed in a timely manner (due by 2/15/2021)
See this excerpt from January 15th NRC letter to NextEra on Point Beach.

“The NRC staff made the following observations while performing its acceptance review of the application:

- NextEra has not provided a Clean Water Act (CWA) Section 401 WaterQuality Certification (WQC) from the Wisconsin Department of Natural Resources (the CWA 401 Certifying Authority), or a documented waiver or other documentation from the Certifying Authority that Section 401 Certification does not apply to the subsequent renewal of the licenses for Point Beach. The staff cannot issue the subsequent renewed licenses without this certification or documented waiver from the Certifying Authority. As such, the lack of Section 401 certification has the potential to adversely impact the issuance of the subsequent renewed licenses.
- NextEra has not provided a Coastal Zone Management Act (CZMA) consistency certification determination from the State of Wisconsin that subsequent license renewal will be compliant with the enforceable provisions of the State coastal zone program. The staff cannot issue the subsequent renewed licenses without this certification. As such, the lack of CZMA certification has the potential to adversely impact the issuance of the subsequent renewed licenses.”

FULL LETTER

ML21006A417

<https://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML21006A417>

V. Economic Impact of Energy costs to Consumers with continued operation of PBNP.

I am also concerned with price gouging by NextEra to WEPCo utilities customers. I understand that with the sale of Point Beach NP by WEPCo to NextEra, WE Energy agreed to purchase electricity from PBNP for approximately 20 years. A recent article in the Wisconsin State Journal states.

“Under the agreement, the utility is paying \$52.66 per megawatt-hour this year, about 1.8 times the average wholesale price for electricity in the Midwest, according to data from the Energy Information Administration. By 2033, the cost rises to \$122.45 per megawatt hour.”

https://madison.com/wsj/news/local/environment/point-beach-owner-seeks-to-run-wisconsins-last-nuclear-plant-for-80-years/article_d50ba0b6-f3ca-5129-81c2-757405a7bec8.html

Here is a copy of the contract between WEPCo and NextEra:

<https://www.sec.gov/Archives/edgar/data/783325/000010781508000082/wecex10-1.htm>

it started at \$31.37/MWh (3.14 cents/kWh) in 2007, which was below market. But it has increased substantially since then, to \$55.82/MWh this year. By 2030, it will be \$100/MWh, and \$122.45 by the time the current licenses expire.

Also see this research on excessive costs of nuclear energy for the consumer:

<https://www.nirs.org/wp-content/uploads/reactorwatch/aging/renaissanceinreverse71713.pdf>

1) This excessive energy cost of electricity from the Point Beach Nuclear Plant needs to be investigated and addressed in EIS scoping as an economic burden to Wisconsin utility consumers.

Sincerely,

Ann T. Behrmann MD
Pediatrician, Madison WI
Treasurer, Physicians for Social Responsibility Wisconsin