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Unsafe and Unneeded – the Point Beach Nuclear Reactors

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The two Point Beach nuclear reactors on Lake Michigan, just north of Manitowoc, Wisconsin, were built in 1970-73 and were designed to operate for 40 years. Their operating licenses were extended in 2010-2013 for 20 years and will expire in 2030-33. Their current owner, NextERa Energy, has applied to the Nuclear Regulatory Commission (NRC) for an extension of their licenses for another 20 years. This would bring the reactors' operating life to 80 years by 2050-53.

Point Beach has one of the worst safety records of reactors in the country. There have been over 100 mishaps and accidents at Point Beach since 1995, according to news reports and the Nuclear Regulatory Commission License Event Reports (LERs). There have been numerous safety violations, an explosion involving a cask of high level waste, failure of cooling water pumps and an instance in 2008 of complete loss of offsite electrical power. There were two red findings in 2002 and 2004, the highest failure rating by the NRC. These involved problems with the water circulation for cooling the reactor.
https://www.nrc.gov/site-help/ler-message.html#commercial
Nukewatch Document

Point Beach also has one of the most embrittled nuclear reactor pressure vessels in the country. This steel vessel contains the fuel rods and develops tiny defects in its structure due to years of neutron bombardment. With thermal shock from rapid cooling or from overheating, it can crack, releasing coolant from around the fuel rods, leading to a core meltdown. https://www.mlive.com/news/kalamazoo/2014/08/palisades_nuclear_plant_embrit.html

Nuclear power plants do not generate the electricity for their cooling systems; they rely on an external electricity supply. If there is damage to the power lines supplying the plant e.g. from snow/ice, tornadoes or attack and the backup diesel generators also fail (due to flooding, tornadoes attack) the fuel rods can overheat and result in a meltdown. This is what happened in Fukushima. https://www.wpr.org/nuclear-power-critics-question-disaster-preparedness-wisconsins-point-beach

There is also the problem of nuclear waste storage. Stored in pools of water in industrial warehouse-type buildings, spent fuel rods are vulnerable in the case of extreme weather event or attack. Critics argue that they should be placed in concrete and steel casks in fenced-off areas outside the plant. https://www.wpr.org/nuclear-power-critics-question-disaster-preparedness-wisconsins-point-beach

Point Beach sits on the shore of Lake Michigan. Should there be a major accident at this reactor, the drinking and irrigation water of 40 million people would be affected.

Nuclear reactor power is not only unsafe; it is unneeded. By 2030, US building energy use alone could be cut more than 20% via weatherization of buildings, use of energy efficient appliances, LED lightbulbs, and heat capturing technologies. https://www.energy.gov/sites/prod/files/2017/03/f34/qtr-2015-chapter5.pdf

If you add savings from efficient and electric vehicles, and transportation system efficiency, energy efficiency could cut US energy use and greenhouse gas emissions in half by 2050.

https://www.aceee.org/research-report/u1907

A 2016 study of the FitzPatrick nuclear power plant in New York found that its electricity output could be replaced by energy efficiency retrofits and wind at a lower cost than the current reactor costs.

https://www.nirs.org/wp-content/uploads/2016/07/replacingthefitzpatricknuclearreactor.pdf

The Point Beach reactors currently supply 16% of Wisconsin's energy needs. Simply by conserving energy, we can make up for the loss of nuclear reactor – generated electricity by 2030.

Why risk a nuclear reactor accident on the Great Lakes when we can live without nuclear power?