

## NUCLEAR MATTERS: Plymouth zoning and Entergy's nuclear waste storage

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Wicked Local Kingston

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On the shores of Cape Cod Bay in Plymouth, where the Pilgrims landed almost 400 years ago, Entergy Corporation is building a long-term, \$160 million storage facility for the highly radioactive waste from Pilgrim Nuclear Power Station. There is a large volume of waste now stored onsite in a dangerous "wet pool," similar to a bathtub. The water keeps the nuclear waste from overheating, exploding and causing a nuclear disaster. Getting the nuclear waste out of the wet pool and into to the long-term "dry cask" facility makes sense for many reasons. But, so far, Entergy does not have the proper local zoning permits, which would provide for public input and transparency.

Entergy's nuclear waste is dangerous since it is radioactive, and also because it contains chemicals that can pollute our environment. As to the radiological dangers, the Federal Blue Ribbon Panel on America's Nuclear Future says the waste is so thermally hot when it is taken out of the nuclear reactor that it emits enough radiation to deliver a fatal dose in minutes to someone in the immediate vicinity who is not adequately shielded. It also contains uranium and plutonium, chemicals that can pollute the soil and groundwater. This nuclear waste will remain dangerous for time periods beyond human comprehension. Plutonium-239 for example, has a half-life of 24,100 years. Entergy will be moving this nuclear waste around on the Pilgrim site for decades.

The facility Entergy is building is called an Interim Spent Fuel Storage Installation, or ISFSI, by the Federal Nuclear Regulatory Commission (NRC) – the agency that is supposed to be overseeing the construction. Eventually (probably more than 30 years from now) there will be more than 48 concrete "dry casks" weighing 200 tons each, and several stories high. They will be stored on a concrete pad. Because the nuclear waste remains radioactively dangerous for so long, the casks have to be monitored and secured for thousands of years until the radioactive materials decay sufficiently. Armed guards will be used to defend them against hostile attacks. The NRC recently announced it will expand the use of assault weapons, high-capacity magazines, and even fully automatic machine guns to increase the firepower used to defend ISFSI sites.

The town of Plymouth has legal authority over key aspects of Entergy's construction project. While the NRC sets many of the standards for the storage of nuclear waste, the town's zoning laws require a "special permit" for this type of project. Entergy must explain the entire project to the town – the exact size, shape and location of all proposed structures as well as details about surface water drainage, groundwater and ecological impacts, flooding, and traffic. Entergy should also provide a timetable for construction and operation. The town Zoning Board of Appeals cannot grant a special permit without including necessary conditions and safeguards that ensure the project will be conducted properly and there will be no nuisance or adverse effects on the area. A public hearing would also be required.

Pilgrim was directly in the path of the February 2013 blizzard, during which Pilgrim lost power twice. Entergy owns about 1,500 acres at Pilgrim, including in the Pine Hills – some of the highest elevated land in the town. Putting the dry cask nuclear waste storage facility at a higher elevation makes sense. This is just one important issue the town could address during the special permit process.

Entergy has yet to submit the proper zoning application to the town of Plymouth. Instead, it has applied for two separate permits for parts of the ISFSI – a retaining wall and a concrete pad. This is improper “piecemeal permitting.” It is comparable to letting a subdivision developer get separate permits for the road, utilities, drainage and so forth, without taking a comprehensive look at the project and its impacts. Entergy’s piecemeal approach also allows the company to avoid public scrutiny because it does not require a public hearing.

If the town of Plymouth requires Entergy to follow the law and apply for a special permit, Plymouth residents will be assured of their legal rights to provide input on this project. Transparency and public accountability should be the touchstones for discussion about what is occurring at Pilgrim. It’s the local residents who will live with the impacts of this facility for years – well past the 400th anniversary of the landing of the Pilgrims.

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