



OF NUCLEAR INTEREST: Radioactive waste storage facility being built in Plymouth

By Sara Altherr

Wicked Local Plymouth

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Last year, without fanfare, Louisiana-based Entergy Corporation started work on a nuclear waste storage facility, using “dry casks” to store radioactive spent nuclear fuel at Pilgrim Nuclear Power Station (PNPS). Various estimates put the cost of the facility between \$165 million and \$400 million.

In Pilgrim’s reactor, nuclear fuel assemblies heat water to make steam that turns turbines to create electricity. Pilgrim’s reactor holds 580 fuel assemblies. After a few years, the fuel is “spent,” and needs to be replaced. However, the spent fuel is highly radioactive and will remain dangerous for thousands of years.

PNPS needs a new storage place for spent fuel assemblies; it is running out of room in its spent fuel pool. There is currently no place to send the spent fuel. In 2010, the federal government abandoned the proposed Yucca Mountain geological repository, and no headway has been made on another site. Thus, producers of nuclear power throughout the U.S. expect to store their spent nuclear fuel on-site for a long time; estimates run as high as 300 years.

To make room in its overcrowded spent fuel pool, Entergy plans to move spent fuel assemblies into dry casks. Critics assert that Entergy has not been forthcoming about the scope of its dry cask project. Based on their own research, citizens have learned that Entergy is now building a giant concrete pad -- approximately 50 by 240 feet -- to hold as many as 40 casks. If PNPS operates until the end of its license, in 2032, at least 50 more casks will be needed, bringing the total to almost 100, and requiring another pad.

In April 2013, local residents appealed the decision of Plymouth’s Director of Inspectional Services to grant Entergy an unconditional zoning permit. Three months later, Plymouth’s Zoning Board of Appeals (ZBA), in a 3-2 vote, upheld the Director’s decision that Entergy does not need a special permit to construct, and store dry casks on, the concrete pad.

Why is a special permit important? Because as things now stand, neither the Town nor its citizens have any input into how the dry cask storage facility is built or operated. To obtain a special permit Entergy would have to make public its plans, participate in a hearing before the ZBA, and complete an environmental assessment of the project. Under a special permit, the ZBA can impose conditions, something it cannot do now.

For example, the ZBA could require that the storage facility be considerably more than 25 feet above mean sea level and 100 yards from Cape Cod Bay. Entergy’s present plan leaves the facility vulnerable to major storm surges, corrosion and sea level rise. The ZBA also could prohibit storage of any waste other than Pilgrim’s, require monitoring to measure temperature and radiation so that the Town will know if there is a problem, and insure that Entergy pays Plymouth enough so that the Town will not be left holding the financial bag.

Many experts believe that storing spent fuel assemblies in dry casks is safer long-term than continuing to store them in Pilgrim's over-crowded spent fuel pool. However, it is important to note that Entergy plans to keep the spent fuel pool full until Pilgrim stops operating, and to move the minimum number of spent fuel assemblies into dry casks.

A petition, asking Plymouth's Board of Selectmen to do everything they can "to insure that Entergy's dry cask storage project is sited, designed, built and operated in the safest manner possible, and that Entergy pays all the costs that the Town may incur in connection with the nuclear waste storage," is being circulated by the local citizen group Concerned Neighbors of Pilgrim.

"We, in fact, support dry cask storage," said one of the petitioners. "We just want to make sure Entergy is doing it as safely as possible, and not at our expense. Long after Entergy is gone Plymouth will be stuck with a toxic nuclear waste dump."

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