

Duxbury Board of Health

Via Email: Mayo@duxbury-ma.gov

January 26, 2022

To the Duxbury Board of Health:

RE: Disposal of Radioactive Water into Cape Cod Bay and other Protected Ocean Sanctuaries

The Duxbury Nuclear Advisory Committee(DNAC) asks that the Duxbury Board of Health (BOH) consider taking steps available to the BOH to help prevent, Holtec's expected dumping of a million gallons of radioactive water from the Pilgrim Nuclear Power Station's spent fuel pool, reactor vessel, separator, and torus into Cape Cod Bay, harming Duxbury.

DNAC would appreciate a spot on BOH's next meeting's agenda, February 18, to discuss the status of Holtec's plan to dump radioactive water into the bay; the economic and health consequences of it doing so; and actions the BOH could take.

Summary:

1. Background, including status and consequences of dumping radioactive water into the bay and authority of the Commonwealth and local governments to enact regulations opposing it, Attachment A.
2. Requested action by BOH to protect our community- amending 3.03 Prohibited Disposal, (a) and (b).

Request: Amend 3.03 Prohibited Disposal ,(a) and (b)

The most pertinent current regulation seems to be 3.03 Prohibited Disposal. 303(a) is quite broad, but might be improved by amending it as shown in red below:

- (a) **Directly or indirectly** placing, dumping, burying, burning, or disposing of any trash, bottles or cans, refuse, rubbish, garbage, debris, scraps, demolition or construction materials of any kind, hazardous waste, **liquid or solid radioactive material of any kind**, all wastes of any other material of any kind from any residential, commercial, industrial or municipal use is prohibited on any land or in any waters within the **jurisdiction of the** Town of Duxbury, unless specifically permitted under Section 3.04 of these regulations. No property owner shall permit such placing, dumping, burying, or disposing on his/her land. The property owner shall be responsible for the removal of any materials that are in violation of Chapter 111, 150A of these regulations. **Except for liquid or solid radioactive materials**, all materials noted above, shall be disposed of at a facility approved by the Department of Environmental Protection and holding

a valid operating permit issued by the Department of Environmental Protection under Chapter 111, 150A. **Any person who violates this provision shall be responsible for any damage resulting from any radioactive material in any waters within the jurisdiction of the town.**

In an attempt to avoid confusion with amended 303(a), it would probably be worthwhile to amend 303(b), again something akin to what is in red below.

(b) RADIOACTIVE MATERIALS; LOW-LEVEL RADIOACTIVE WASTE

(1) Acceptance of **(a) any liquid or solid radioactive materials or (b)** any low-level radioactive waste, deregulated or otherwise, at any landfill, transfer station or other waste site or facility within the boundaries of the Town of Duxbury is prohibited.

(2) Disposal of **(a) any liquid or solid radioactive materials or (b)** any low-level radioactive waste, deregulated or otherwise, at any landfill, transfer station, waste site or elsewhere within the boundaries of the Town of Duxbury is prohibited.

(3) As used in this regulation, the term “low-level radioactive waste” means any radioactive material that (i) is by-product material, as defined in the United States Code, Title 42, Section 1024(e) (I), (ii) the United States Nuclear Regulatory Commission classifies as low-level radioactive waste, or (iii) the United States Nuclear Regulatory Commission classified as low-level radioactive waste as of January 1, 1989, whether or not such material was thereafter classified as below regulatory concern or declared exempt from regulatory control by the United States Nuclear Regulatory Commission, the United States Environmental Protection Agency, the United States Department of Energy, or any other agency of the United States Government. The term “low-level radioactive waste” does not include waste which remains a federal responsibility, as designated in **42 U.S.C. Section 2021c(a)(1)(B)** of the Low-Level Radioactive Waste Policy Act, as in effect as of the effective date of this regulation or as amended. **[delete - , 42 U.S.C. Section 2021(c)]**

Thank you for your consideration, and we look forward to discussing this with the BOH. If it would be helpful, we are happy to answer specific questions over email or by phone, and provide additional documentation.

Sincerely,

Mary Lampert, mary.lampert@comcast.net, 781-934-0389

Rebecca Chin, rebeccajchin@hotmail.com, 781-XXX-YYYY

Co-Chairs, Duxbury Nuclear Advisory Committee

Attachment A- Background

A MILLION GALLONS OF RADIOACTIVE WATER DUMPED IN OUR BAY?

Holtec, Pilgrim's owner, needs to "dispose of" more than one (1) million gallons of Pilgrim's radioactive contaminated water. On December 1, the Nuclear Regulatory Commission (NRC) told Congressman Keating that "Holtec has informed the NRC that it plans to discharge liquid effluents sometime in the first quarter of 2020." Since then, Holtec has backtracked and said it will not discharge any radioactively contaminated water during 2022, but what then?

Holtec says it has two options to "dispose of" Pilgrim's radioactive water - dump it directly into Cape Cod Bay or send it out-of-state to an existing radioactive waste site. Vermont Yankee decided to send its two (2) million gallons of radioactive water to a waste site in Idaho rather than dumping it into the Connecticut River.

There is no acceptable reason for Holtec not to follow Vermont Yankee's lead. However, experience makes clear that Holtec will take the cheap route. The NRC says that Holtec can dump whenever it wants to, and Holtec says it will do anything the NRC allows. We cannot trust either Holtec or the NRC to protect us.

Cape Cod Bay, Plymouth Bay, Duxbury Bay and Kingston Bay are protected ocean sanctuaries. Daily tides and currents circulate water and contaminants from Cape Cod Bay into the other bays. Cape Cod Bay is a critical habitat for right whales. Dumping radioactive water into them is not safe. Holtec's planned dumping would cause incalculable economic damage. It also would harm both the environment and public health.

Economic Damage:

The economic harm that Holtec's dumping plan will cause cannot be overstated. Holtec's plan to dump is not, and cannot be kept, a secret from the public. It already has caused outrage in the fishing, shellfish, and aquaculture industries.

These industries correctly fear that the dumping will contaminate the water, and millions of oysters, lobsters, mussels, clams, and fish. They also rightfully believe that public perception that the Bays are contaminated could destroy their hundreds-of-millions of dollars businesses. Holtec's planned dumping will have similar serious impacts on boating and other marine industries, to say nothing of tourism and our beaches, on which the livelihoods of our towns depend.

The economic viability of the seafood, marine and tourist businesses depends on the waters in Cape Cod Bay, Plymouth, Duxbury, and Kingston Bays being clean - not polluted with long-lived and highly toxic radiation. Public health, the environment, and the right whales that regularly swim past Pilgrim, require uncontaminated water.

Dumping is not safe.

The NRC says that Holtec's dumping is safe. It is not, and the NRC will not protect us. The NRC requirement for "protection of the general population from releases of radioactivity" (10 CFR 61.41) is inadequate.

Among other things, the NRC standard for how much radioactivity Holtec can release into Cape Cod Bay:

- Is based on an outdated (more than 30 years old) scientific understanding of the negative effects of radiation on our health. The recent National Academies Report shows a far greater consequence, especially to women and children.
- Does not calculate harm to the wider population, but only the annual dose to an individual.
- Does not consider the economic or environmental effect of a release.
- Forgets that it is not possible to filter some very harmful radionuclides such as Tritium.

There is no apparent way accurately to correlate the amount of radioactive material released into a coastal bay with either the annual dose to an individual or to how much might be in the shellfish who filter the water in the bay.

In addition, the NRC relies on what Pilgrim reports, and only reviews Pilgrim's discharge program and past releases annually. Neither the NRC nor MDPH monitors Pilgrim's releases. Only the licensee is required to analyze their water per their technical specifications.

Authority

Authority: The Commonwealth, and local communities like Duxbury CAN prevent Holtec's planned dumping- if it wants to.

Although NRC normally has exclusive authority "of the safety and 'nuclear' aspects of energy generation," NRC authority does not extend to a state or local law grounded in economic purposes, such as protecting our businesses that depend on clean water. If an "economic purpose [is]the rationale for enacting" a statute, "the statute lies outside the occupied field of safety regulation." field of nuclear safety regulation." *Pacific Gas & Electric Co. v. State Energy Resources*, 461 U.S. 190, 212, 216 (1983).

A basic legal principle, reaffirmed by Judge (now Justice) Gorsuch in *Cook v. Rockwell International Corp.*, 790 F.3d 1088 (10th Cir. 2015), is that in striking a balance between promoting the nuclear energy industry and insuring relief to those who might be injured by it, Congress authorized the federal government alone to promulgate *before-the-fact nuclear safety* regulations, but it **left with the states the authority to enact laws that protected their citizens from potential *after-the-fact* consequences.** *After-the-fact* consequences include the consequences of intentionally dumping a million gallons of radioactive water into our bays.

Even more important here, Holtec has waived any right it might otherwise have to rely on preemption. In the **Settlement Agreement** between it and the Commonwealth Holtec agreed to "comply with all applicable environmental and human-health based standards and regulations of the Commonwealth." Section III, 10 (I). These "standards and regulations" include, for example:

- MGL 132A, Sec. 13 MGL that protects Cape Cod Bay, Plymouth Bay, Duxbury Bay, Plymouth Bay, Nantucket Sound, Vineyard Sound, Buzzards Bay, the Cape Cod Canal, Pleasant Bay, and portions of the Atlantic Ocean as Ocean Sanctuaries.

- MGL ch 270 that makes it a crime to deposit or discharge “waste or other material of any kind on a public highway or within 20 yards of a public highway, or on any other public land, or in or upon coastal or inland waters ... or on property of another.”
- MGL ch 131A, the Massachusetts Endangered Species Act, and its associated regulations (310 CMR 10.00).
- Local Boards of Health regulations.