



For a thriving New England

CLF Massachusetts

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Christopher Hanson, Chairman
U.S. Nuclear Regulatory Commission
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Chairman@nrc.gov

David Cash, Regional Administrator
Environmental Protection Agency
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Dear Mr. Singh, Mr. Hanson, and Mr. Cash,

Conservation Law Foundation is writing to express its strong opposition to the disposal of radioactive wastewater from the Pilgrim Nuclear Power Station into Cape Cod Bay. Although Holtec recently announced that they will not release radioactive water into the Bay until a third-party environmental expert weighs in, CLF urges Holtec to abandon all plans to use Cape Cod's waters as its dumping ground. Alternate methods of disposal of the radioactive waste are available. To prevent any potential harm to Cape Cod's residents, visitors, and the Bay's marine life, and to avoid negative impacts to the local economy, CLF urges Holtec to commit as soon as possible to an alternate method of disposal.

While the radioactive waste may be treated to comply with the Nuclear Regulatory Commission guidelines, studies show that the pollutants in the waste may still have deleterious effects on human health. Holtec cannot fully remove all radionuclides from the waste, and the full extent of the negative effects of radionuclides on human health is unknown. Exposure to

radionuclides is definitively associated with an increased risk of cancer and causes health risks for pregnant individuals, including miscarriages, malformations, and genetic defects. Radium, via oral exposure, is known to cause bone, head, and nasal passage tumors in humans, and radon, via inhalation exposure, causes lung cancer in humans. Uranium may cause lung cancer and tumors of the lymphatic and hematopoietic tissues. Holtec must provide the public and the regulatory agencies adequate information regarding the pollutants (both radioactive and non-radioactive) in the wastewater and the concentration levels of each pollutant.

In addition, Cape Cod Bay is a unique and precious ecosystem; home to a host of marine mammals, seabirds, fish, and invertebrates, that may be harmed by such a large radioactive discharge. A third-party environmental expert may offer valuable insights, but consultations under the Endangered Species Act (ESA), as well as the Magnuson-Stevens Act (MSA), are required prior to the discharge of millions of gallons of radioactive water. The consultation requirement is important for biodiversity conservation because the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) have unique expertise vital to accurately identifying the effects of proposed actions on endangered and threatened species' conservation prospects.

One species of special concern to CLF is the critically endangered North Atlantic right whale for whom critical habitat was designated in the Gulf of Maine, including the Cape Cod Bay, in 2015.¹ Section 7(a)(2) of the ESA requires federal agencies to “insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any” endangered or threatened species. 16 U.S.C. § 1536(a)(2). To comply with Section 7(a)(2)’s substantive mandate, federal agencies must consult with the NMFS when their actions “may affect” a listed marine species. *Id.* NMFS and the action agency must utilize the “best scientific and commercial data available” during the consultation process. *Id.*; 50 C.F.R. § 402.14(a).

¹ See Final Rule, 81 Fed. Reg. 4838 (Jan. 27, 2016).

To CLF's knowledge, NMFS last completed a Section 7 consultation in May 2012 when considering NRC's proposed issuance of an extended operating license to authorize operations for 20 years. This consultation, however, only considered facility operations, not decommissioning. It is also our understanding that the [post-shutdown decommissioning activities report for Pilgrim](#) does not contemplate the type of discharge intended here.² The ESA's implementing regulations require an agency to reinitiate Section 7 consultation, among other reasons, when new information reveals that the action may have effects not previously considered, the action is modified in a way that was not previously considered, or new critical habitat is designated that may be affected by the action.³ Since all of those factors exist here, any proposal by Holtec pursuing the discharge of radioactive waste will require NRC to undertake an inter-agency ESA Section 7 consultation with NMFS.

Moreover, when a federal agency, such as NRC, authorizes, funds, or undertakes part or all of a proposed activity, an essential fish habitat (EFH) consultation is required to ensure that the action will not "adversely" affect EFH. The positive and beneficial relationship between effective habitat protection and a healthy ocean producing optimum yields from sustainable fish stocks has been widely recognized by Congress, NMFS, and the scientific community. To this end, Congress made substantial changes to the Magnuson-Stevens Act in 1996 that emphasized the importance of EFH and to mandate its protection.⁴

The Cape Cod Bay is essential fish habitat for numerous commercially managed species of fish including Atlantic cod, American plaice, haddock, ocean pout, white hake, windowpane flounder, winter flounder, yellowtail flounder, silver hake, red hake, winter skate, Atlantic sea scallop and Atlantic herring.⁵ Given the potential that radioactive waste could adversely affect EFH for these species, NRC should initiate consultation with NMFS and complete that consultation prior to discharging any waste into Cape Cod Bay.

² See <https://www.nrc.gov/docs/ML1922/ML19224A540.pdf>.

³ 50 C.F.R. § 402.16.

⁴ 16 U.S.C. § 1853(a)(7).

⁵ https://s3.us-east-1.amazonaws.com/nefmc.org/OA2-FEIS_Vol_2_FINAL_171025.pdf.

Any dilution of the radioactive pollutants that may occur in the Bay after the discharge does not make this option responsible nor sustainable. In fact, the shape of Cape Cod Bay ensures that water circulates within the Bay, as opposed to filtering out into the ocean. Research performed by Woods Hole Oceanographic Institution indicates that radionuclides and other contaminants would not disperse into the ocean but will likely recirculate within the Bay and eventually settle in the sediment in the Bay.

In addition to the negative effects that the radioactive waste may have on human life, the pollution, even the perception of the pollution, will cause negative repercussions for the local economy. Fishing, agriculture, and tourism are major industries of Cape Cod, all of which will be harmed by the impression that any amount of radioactive waste is being discharged into local waters. Seafood sales will be at risk of decline due to reasonable concerns that the seafood itself is irradiated from the nuclear waste. Any decrease in demand for seafood harvested near Cape Cod may be unendurable at a time when the Massachusetts seafood industry is just beginning to recover from the COVID-19 pandemic's impact on restaurants, trade, labor, and supply chains. Tourism may also be negatively impacted due to concerns that the waters and beaches are unsafe for swimming and other recreation. The millions of fishermen, homeowners, and business owners who rely upon a clean and safe Cape Cod Bay should not have to pay the price of Holtec's waste disposal.

Finally, Holtec has considerable financial resources to employ an alternate means of waste disposal. In 2014, Vermont Yankee Nuclear Power Station transported its radioactive waste to nuclear waste disposal specialists outside of Vermont. Long-term storage of radioactive waste reduces the amount of tritium hazard (through decay) and may be the least environmentally damaging option. CLF urges Holtec to accept environmental responsibility for its waste, take the path least damaging to the local communities, and publicly announce that it will not discharge the waste into Cape Cod Bay.



Sincerely,

A handwritten signature in black ink, appearing to read "H. Govern", with a stylized, flowing script.

Heather Govern, Vice President
Clean Air and Water Program

A handwritten signature in blue ink, appearing to read "Erica Fuller", with a stylized, flowing script.

Erica Fuller, Senior Attorney
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Cc:
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