



January 30, 2024

**Calling for an immediate halt to radioactive aerosol releases from the Pilgrim Nuclear Power Station, an endangerment to public health**

To: The Honorable Governor Maura Healey

Cc: Secretary of Energy and Environmental Affairs Rebecca Tepper  
Secretary of Health & Human Services Kate Walsh  
Commissioner of the Department of Environmental Protection Bonnie Heiple  
Commissioner of the Department of Health Dr. Robert Goldstein  
Attorney General Andrea Campbell

Dear Governor Healey:

We write to you as physicians and public health experts at Greater Boston Physicians for Social Responsibility (GBPSR), a physician-led group of health professionals and community members working to address the twin existential threats to human health: nuclear weapons development and climate change. Our members include nationally recognized experts in public health, cancer epidemiology, occupational medicine, environmental health, emergency medicine and disaster preparedness.

We write to express our concern regarding the potential for **serious endangerment to the public's health due to the [aerosol release of radionuclides](#) at the former Pilgrim Nuclear Power station in Plymouth, MA**. The placement of submerged heaters inside the reactor water during the decommissioning process of the Station has almost certainly led to an increased release of radionuclide vapor that has the potential to pollute not just the air but also surrounding groundwater and Cape Cod Bay. In addition to radioactive tritium, radioactive contaminants such as cesium, manganese, cobalt, plutonium and iodine may be being released to the surrounding environment from the Station during its decommissioning.

The harm of aerosol releases is that the chemical and radioactive gases produced can be directly inhaled. Given that wind rose analyses of dispersal indicate that these radionuclides, when they settle out of the air, will also end up in Cape Cod Bay and in groundwater, these radionuclides may also be ingested via drinking water and contaminated seafood.

All of these health exposures are unacceptable because **there is no safe level of radiation exposure**. All the radioactive elements known and suspected to be released from the Plymouth Nuclear Power Station can cause cancers in humans, including lung cancer, bone cancer, thyroid cancer, adult leukemia, and childhood leukemia. The scientific consensus is that every additional exposure to radiation adds to the total risk for genetic damage and thus for cancers like leukemia; increased radiation necessarily implies increased incidence of



these diseases in exposed populations. For solid cancers, the risk for cancer from radiation is linearly proportional to cumulative exposure.

While more exposure is always worse, even very low-dose exposures to radiation increase cancer risk, especially among vulnerable populations such as pregnant women, infants in the womb, and young children. As physicians and public health experts, we are not reassured by Holtec's claims that radioactive releases from the Pilgrim Nuclear Power Station are harmless.

The Plymouth Nuclear Power Station has specifically been associated with increased leukemia incidence in the local community from the time it first went into operation. Professor Richard Clapp of the Boston University School of Public Health found a [fourfold excess of leukemia cases among those who lived or worked near the Plymouth nuclear power plant](#). The [peer-reviewed case control study](#) also showed [increased infant mortality and thyroid cancer](#). At that time, according to Clapp, Plymouth was [the worst in the US nuclear industry](#) in terms of over-exposure of workers to radiation. These findings were confirmed in a [later study](#) by the Massachusetts Department of Public Health.

Furthermore, recent studies suggest that proximity to ionizing radiation sources is associated with an increased risk of [dementia](#).

We join our colleagues at the Massachusetts Medical Society in calling for the Massachusetts state legislature and regulatory entities to fund adequate scientific studies of the Pilgrim nuclear plant decommissioning process BEFORE any such releases are allowed. We must have data; and to have data we must have monitoring. The monitoring data that Holtec collected when it evaporated thousands of gallons of radioactive waste via aerosol at Pilgrim must be publicly shared and compared to historical data.

**We encourage you to call for an immediate halt to these radioactive aerosol releases from the Pilgrim Nuclear Power Station and to use your powers to enforce Massachusetts state law, which prohibits such contamination. Such air and water pollution present a serious endangerment to the public's health.**

**We request additionally that monitoring data of this radioactive vapor by Holtec be made fully known to the public and to state and local agencies and that resources be made available to fund adequate scientific studies of the health impacts of both proposed and actual releases prior to any further releases in the decommissioning process.**

Decommissioning nuclear power plants poses [many risks to health](#) to workers and to residents of nearby communities. Over the coming years, the United States will be decommissioning many of its aging nuclear reactors. It will therefore be essential to develop



a standardized process for decommissioning of these facilities that is protective of health not only in Massachusetts but in other states across the nation.

Massachusetts was a leader on sounding the alarm about the health harms of leaded gasoline and second hand tobacco smoke; more recently, Massachusetts has started to take action regarding indoor and outdoor air pollution which will prove resoundingly successful for public health and for patients—and help reverse the excess mortality from air pollution that is found in every community across the state. Aerosol release of radionuclides is a form of air pollution. Massachusetts can and should be a leader on this public health issue: the MA DPH –and local residents can insist that these releases be halted while study of the health effects of current releases is undertaken and safe options for disposal pursued.

We are available to discuss this matter with you in person.

Sincerely,

Susan Racine, MD  
Chair of the Board  
Greater Boston Physicians for Social Responsibility

Philip J. Landrigan, MD, MSc  
Professor of Biology and Director, Program for Global Public Health & the Common Good  
Boston College

Regina LaRocque, MD, MPH  
Associate Professor of Medicine  
Harvard Medical School

Brita E. Lundberg, MD  
Board member, Greater Boston Physicians for Social Responsibility