

**PILGRIM WATCH
JONES RIVER WATERSHED ASSOCIATION
PILGRIM COALITION
CAPE DOWNWINDERS**

March 3, 2015

The Honorable Charles Baker
The State House
Boston, Massachusetts

We are writing with regard to the Pilgrim Nuclear Power Station (Pilgrim) in Plymouth, Massachusetts, owned and operated by Entergy Nuclear Operations, a Louisiana-based company.

In June, 2014, Dr. Allison Macfarlane, then Chair of the U.S. Nuclear Regulatory Commission (NRC) told Governor Patrick that the “Commonwealth of Massachusetts has the overall authority for making protective action decisions ... to ensure the safety of Massachusetts residents during a radiological event” at Pilgrim. (Letter dated June 9, 2014, **Attachment 1** hereto.) We write to ask that you and your administration exercise your authority to protect both “the safety of Massachusetts residents” and the Commonwealth’s economy by making “protective action decisions,” not only “during a radiological event” but also before.

Recent events emphasize the importance of the Commonwealth doing so. The MBTA is not the only failing entity in this state. Pilgrim, more than twice as old as the Red Line cars, is also. The major difference between the two is that, according to the *Boston Globe*, the MBTA’s failures have resulted in “only” one billion dollars damage to the Commonwealth’s economy. According to an expert retained by the Massachusetts Attorney General during Pilgrim’s NRC relicensing, a radiological event¹ at Pilgrim could cause \$488 billion in damages, and more than 24,000 latent cancers. The NRC’s Earthquake Study found that a pool fire in a reactor designed like Pilgrim could lead to an average area of 9,400 square miles rendered uninhabitable for decades, displacing as many as 4.1 million people. (Earthquake Study, 2013, Table 33, page 16). About 5 million people live in a 50-mile radius around Pilgrim.

In 2013, Pilgrim was forced to shut down more times than any other nuclear reactor in the United States. Many of these shut-downs were the result of equipment failures due to age and lack of

¹ The specific event was a fire in Pilgrim’s spent fuel pool. The spent fuel pool is located some 80 feet in the air in The Massachusetts Attorney General’s Request for a Hearing and Petition for Leave to Intervene With respect to Entergy Nuclear Operations Inc.’s Application for Renewal of the Pilgrim Nuclear Power Plants Operating License and Petition for Backfit Order Requiring New Design features to Protect Against Spent Fuel Pool Accidents, Docket No. 50-293, May 26, 2006 includes a Report to The Massachusetts Attorney General On The Potential Consequences Of A Spent Fuel Pool Fire At The Pilgrim Or Vermont Yankee Nuclear Plant, Jan Beyea, PhD., May 25, 2006 (NRC Electronic Hearing Docket, Pilgrim 50-293-LR, 2—6 pleadings, MAAGO 05/26 (ML061640065) & Beyea (ML061640329)

maintenance. As a result, the NRC downgraded Pilgrim, ranking it as one of eight (out of a total of nearly 100) reactors with the worst performance record.

Pilgrim's poor operating record prompted a special inspection by the NRC in late 2014. A copy of the NRC's January 26, 2015 inspection report, including the cover letter is **Attachment 2**. The 57-page document was issued by the NRC on January 26th, a day before the severe winter storm known as "Juno" hit Massachusetts. The NRC describes the four emergency scrams in 2013 that prompted the special inspection as "risk significant performance issues, both individually and collectively." Inspection Report, p. 28. In the words of the NRC, its inspectors, "identified deficiencies regarding Entergy's execution of corrective actions...as well as Entergy's understanding of some of the causes of the issues." Entergy failed to implement corrective action procedures according to NRC requirements in order to address the "risk significant performance issues." Cover letter to Report, page 1. The NRC concluded that "Pilgrim will remain in the Degraded Cornerstone Column of the Action Matrix until the NRC verifies, through successful completion of a supplemental inspection, that Entergy has taken actions to address the deficiencies identified in evaluation or correction of individual performance issues discussed above." Cover letter to Report, p. 2. Key findings from the NRC report are listed in **Attachment 3**, Section A.

The deficiencies identified in the NRC's inspection report that Entergy failed to take corrective actions and perform causal analyses proved to be a crystal-ball blueprint for what went wrong at Pilgrim when Juno hit the very next day, and multiple equipment failures forced an unscheduled shutdown. The basic events that occurred in 2013 were repeated in 2015: an emergency scram resulting from loss of off-site power and complicated by mechanical failures. See **Attachment 3**, Section B.

By this letter, we ask that you take **three specific actions**:

First, although you do not have the power to order Entergy to close Pilgrim, you do have the ability to convince NRC and Entergy that it is in Entergy's, and the Commonwealth's, best interest to shut down as a precautionary measure whenever there is a threat of a severe storm. Severe storms are predicted to increase as a result of climate change and Pilgrim faces directly into the eye of a Nor'easter. A precautionary shut-down is in the Commonwealth's interest since it would significantly reduce the risk that old and over-stressed equipment would fail or malfunction, and result in a catastrophic radiological accident. Besides preventing accidents or near misses, preemptive shutdown it is in Entergy's interest for its own economic reasons. Every day Pilgrim is shut down is a day that Entergy gets no revenues from the sale of Pilgrim's electricity. The malfunctions and failures occasioned by Juno forced Pilgrim to shut down for 11 days. Had Entergy shut down Pilgrim before Juno hit, there would have been fewer failures and malfunctions, and those that happened could have been fixed – and Pilgrim could have resumed making money for Entergy – in a far shorter time period.

Second, you and the Commonwealth do have the right and power to "determin[e] the adequacy" (Attachment 1, p. 2) of Pilgrim's Radiological Emergency Plan and Procedures and to make changes to those plans, as long as the changes are more, not less, conservative than the federal guidelines. Pilgrim's current Radiological Emergency Plans are not adequate. There is no radiological emergency response plan and procedures to protect Cape Cod residents and visitors, over 300,000 in the summer. Residents, organizations and local emergency management directors want plans. In 2013, fourteen towns on Cape Cod passed the town warrant or ballot question asking Governor Patrick to request that the NRC uphold its mandate and close Pilgrim "because the public safety, particularly of Cape Cod residents and visitors, cannot be assured." The National Park Service of the U.S. Department

of the Interior, which runs the Cape Cod National Seashore, supports this request. Attachments 3 and 4 (Letters dated March 30, 2013 and June 10, 2013).

The Radiological Emergency Plan for the 10-mile Emergency Planning Zone (EPZ) around Pilgrim is inadequate. For example, Duxbury and Kingston have refused to sign-off on the plans. MEMA and Entergy have consistently refused to make specific changes these towns have requested. We request that your administration take a realistic look, with input from citizens and officials from impacted communities, at what must be done to truly protect Massachusetts residents proximate to Pilgrim, and you as Governor should not approve emergency plans when asked to do so each year if local communities do not approve their plan. We recommend that you, your Executive Secretary of Energy and Environmental Affairs, and the Director of MEMA set up public meetings in Pilgrim's EPZ and on Cape Cod to hear from citizens and local officials.

Third, we ask that you support legislation pending in the legislature that would— *at no cost to the Commonwealth*: Establish a decommissioning trust fund for the likelihood that the federal fund will be insufficient; Assess a fee on spent fuel assemblies in spent fuel pools to provide for town and Commonwealth needs; Increase the size of the emergency planning zone to, e.g., include Cape Cod; and increase assessments to licensees to provide sufficient moneys for the Massachusetts Department of Public Health's radiological monitoring program. We will follow up with more detailed information on pertinent bills introduced in 2015.

After Juno, the NRC sent a team of six inspectors to Pilgrim to investigate the January 27 emergency scram and equipment failures. That report will be made publicly available in late March, forty-five days after the inspection was completed. We would like to meet with you and your staff soon after that to discuss the report and all of our concerns about what we see as an increasingly dangerous gamble with the safety of the residents of Massachusetts and a troubling record of recurrent Pilgrim failures.

Our contact information is listed below. We look forward to your response.

Sincerely,

Pilgrim Watch

Mary Lampert, Director
148 Washington St.
Duxbury MA 02332
781-934-0389
mary.lampert@comcast.net

Jones River Watershed Association

Pine duBois, Executive Director
55 Landing Road
Kingston MA 02364
781-585-2322
pine@jonesriver.org

Pilgrim Coalition

Arlene Williamson
c/o 55 Landing Road
Kingston MA 02364
contact@pilgrimcoalition.org
774-521-3347

Cape Downwinders

Diane Turco
tturco@comcast.net
508-776-3132

Cc:

Senate President Stan Rosenberg
Senator Vincent DeMacedo
Rep. Tom Calter
Secretary of Energy and Environmental Affairs Matt Beaton
Kurt Schwartz, Mass. Emergency Management Agency
Town of Plymouth, Board of Selectman
Aaron Wallace, Town of Plymouth Emergency Management