

## **OF NUCLEAR INTEREST: We need emergency planning**

**By Mary and James Lampert**

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The need for emergency planning, reception centers and nuclear preparedness will not go away when Pilgrim stops generating electricity.

Entergy now pays each of the five towns in Pilgrim's Emergency Planning Zone (Duxbury, Plymouth, Carver, Marshfield, and Kingston) between \$85,000/year and \$295,000/year for emergency planning, training, and equipment. It also pays three towns (Braintree, Bridgewater, and Taunton) the costs of hosting reception centers; and MEMA's Nuclear Preparedness 2016 budget, with costs assessed to licensees of operating reactors in the commonwealth, was \$482,901.

To save the industry money, the Nuclear Regulatory Commission has allowed licensees to cease offsite emergency planning shortly after a nuclear power plant closes. However, the need for emergency planning, reception centers and nuclear preparedness will not go away when Pilgrim stops generating electricity. It will continue at least until all of the Pilgrim's spent nuclear fuel has been moved from its spent fuel pool into dry casks, and to lesser extent thereafter until all spent fuel is eventually removed from Pilgrim's site.

If towns do not continue to receive funds, training, and equipment, they will not be able to provide the protection that their community needs and deserves.

Why is this important to you and your family?

Closing Pilgrim may largely eliminate the risk of an accident in Pilgrim's reactor, but it will not reduce the risk of significant offsite radiological releases if there is a spent fuel fire or accident.

Pilgrim's crowded spent fuel pool is vulnerable to a fire if the pool loses water (either water loss just to the top of the assemblies in the pool or total drain-down) as the result of a terrorist attack, equipment malfunction, dropping a spent fuel canister being moved out of the pool, a natural event, or human error.

According to nuclear security experts at Princeton University, a major spent-fuel pool fire could contaminate as much as 38,610 square miles – almost five times the area of Massachusetts. A 2006 study conducted for the Massachusetts attorney general estimated a spent-fuel pool fire at Pilgrim would result in \$488 billion in damage and 24,000 cancers.

### **What's wrong with the NRC?**

The NRC's view that licensees should be exempt from offsite emergency planning after a plant shuts down rests on at least two false and incorrect assumptions.

First, the NRC falsely assumes that a fire in the pool would be slow breaking, and that there would be no offsite releases for at least 10 hours. But over a broad range of water-loss scenarios, the temperature of the zirconium fuel cladding would rise to the point (approximately 1,000 degrees C) where a self-sustaining, exothermic reaction of zirconium with air or steam would begin. Fuel discharged from the reactor for one month could ignite in less than two hours, and fuel discharged for three months could ignite in about three hours.

Second, the NRC incorrectly assumes that the potentially impacted area could be evacuated within 10 hours, even without offsite notification sirens or any of the other elements of offsite radiological emergency planning. Except for the NRC (and perhaps Entergy), no one believes that a potentially impacted area will be evacuated within 10 hours.

### **What can you do?**

You can support a bill, H. 1147, now pending in the Massachusetts Legislature. That bill would require Entergy to fund offsite radiological emergency response expenses incurred by the state or a town after Pilgrim closes until all of the reactor's spent fuel is removed from the spent fuel pool and placed in dry casks. It also says that Entergy cannot use any monies from Pilgrim's Decommissioning

Trust Fund to satisfy this obligation; that fund must continue be restricted to decommissioning and radioactive cleanup. The legislature's Joint Committee on Public Health will hear the bill. Give them a call at 617-722-1206 or 617-722-2130, and ask your local and state officials to support this bill, too.

*Mary Lampert is director of Pilgrim Watch and co-chair of the Town of Duxbury Nuclear Advisory Committee, and supports the work of local citizen groups such as Pilgrim Coalition and Cape Cod Bay Watch. James Lampert is an attorney and member of Pilgrim Watch and the Town of Duxbury Nuclear Advisory Committee.*



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