

## **The NRC bets our lives and property on Obsolete Technology**

As the Fukushima accident was underway, the appeal of the Nuclear Regulatory Commission dismissal of the Massachusetts Attorney General's contention on the massive storage of spent fuel was pending before the federal Circuit Court, and the Governor and other state officials asked that the vote be delayed, on May 12th, 2012 the NRC voted to grant Entergy a license to operate the Pilgrim Nuclear Power Station until June of 2032.

The Pilgrim nuclear reactor is the same design as the four which exploded in Japan in 2011. After forty years of operation it has more waste fuel outside of containment than the combined storage of those stricken Japanese reactors. Cape Cod is downwind of Pilgrim about half the time, yet we have no radiological emergency plan - that's foolish, and we're the fools for allowing our state government to get away with it. Since 1972, Pilgrim's Mark 1 design has been known to be incapable of containing a severe accident, so it's containment is vented. Yet it operates without filters on the vents. One of every eight Mark 1 reactors have exploded and released massive contamination. Why not quit while we're ahead? After all, we don't even need its electricity.

### **14 Reasons why the Pilgrim Nuclear Reactor should be Closed**

1. **Pilgrim is the same design as the four that exploded in Japan in 2011.** One of every eight Mark 1 reactors have exploded and released massive contamination. Why not quit while we're ahead?
2. **Pilgrim's containment cannot contain.** This has been known since 1972 and confirmed in the 1980s when a 'vent system' was installed. It was proven 3 times last year in Japan. A containment that must be vented does not serve its purpose. Sweden and France have filters on their vents, but not Pilgrim.
3. **The Fukushima accidents were caused by a loss of offsite power.** It doesn't take a tsunami - an ice storm, hurricane, human error or terrorist can do it. Pilgrim has buried cables to deliver offsite power to the reactor. These cables are not qualified for use in wet locations, yet they have been wet for decades - and have never been tested.
4. **There is no safe dose of radiation.** This has been a consistent finding for over three decades by the National Academy of Sciences.
5. **Some part of Cape Cod is downwind of Pilgrim about half of the time.** A serious accident could have significant ongoing releases for many months.
6. **Emergency planning.** There are over 75 thousand people within 10-miles of Pilgrim; and nearly 5 million within 50-miles. The Statehouse in Boston is 38 miles away. Because of its potential for devastation, Pilgrim is vulnerable to sabotage or terrorist attack. The U.S. government advised Americans in Japan to evacuate if they were within 50 miles of Fukushima. Pilgrim has an unrealistic 10-mile Emergency Planning Zone, no plans to instruct most in it to evacuate, and inadequate radiological monitoring to direct evacuees to the best locations.

7. **The Cape and Islands have no radiological emergency plan.** Although 78% of Cape and Islands voters called for establishment of a Radiological Emergency Response Plan in 1992, we still have no plan for an accident at Pilgrim. The PNPS emergency plan would close both bridges to off-Cape traffic, and there are no plans to notify, shelter or evacuate our population. Many would probably follow the misleading 'Evacuation Route' signs, only to sit in gridlock, possibly in a fallout cloud.
8. **Radwaste Risk.** Pilgrim has nearly four times more highly radioactive waste fuel than it was designed to store, held in the attic of the reactor, outside of primary containment, with a thin and vulnerable roof overhead. Experts for the Massachusetts Attorney General said that the pool is vulnerable to a catastrophic fire from loss of water that could contaminate over 100 miles downwind and cause up to 24,000 latent cancers and \$488 billion in damages.
9. **Radwaste Dump.** Nuclear waste contains some of the most toxic substances known, and after seven decades of taxpayer subsidies, the nuclear industry has no place to put it, and no plans to move it. Our grandchildren's grandchildren's grandchildren will have to caretake it while receiving no benefit, and it's immoral to generate even more.
10. **Insurance.** Homeowner's insurance will not cover damages from radioactive releases, and the industry-wide insurance pool - which will not pay for cleanup - would cover only about 3% of the average cost of a severe accident. Taxpayers will be expected to pay the rest.
11. **Heating Cape Cod Bay.** Pilgrim sucks in 510 million gallons of bay water each day, with fish eggs and other organisms, and returns it 30° hotter. This 'once-through' cooling system is in violation of the Endangered Species Act, and the CWIS permit expired 17 years ago.
12. **Fire Hazard.** The NRC has estimated that fire is the greatest single hazard for reactor meltdown. Pilgrim is probably not in compliance with Nuclear Regulatory Commission (NRC) regulations, but it's unlikely that anyone knows for sure - including the NRC.
13. **Daily releases of radioactive material.** Pilgrim emits radionuclides into our air and water daily. Permitted releases have not been lowered to match today's understanding of radiation's harmful health effects, and offsite monitoring is insufficient to provide a reliable 'neighborhood watch'.
14. **Pilgrim's electricity is not vital.** At a Statehouse hearing in June, 2011, a representative of ISO-NE, which manages the grid, was asked what the effect on the grid would be if Pilgrim were not relicensed: "Would the lights stay on?" The reply was that we would have other sources to make up power that would be lost if Pilgrim closed.