

**Duxbury Nuclear Advisory Committee - AGENDA**  
**Tuesday, Sept 28, 2021 –Sr. Ctr. – 7:30 PM**

TOWN CLERK  
2021 SEP 23 PM 1:54  
DUXBURY, MASS.

**Members:** Mary Lampert, Becky Chin, Jim Lampert, Nancy Landgren, Patrick Gagnon, Megan Driscoll Greenstein

**Liaisons:** Kevin Nord, DEMA, Cynthia Ladd Fiorini , BOS   **Location:** Sr. Ctr.

**AGENDA**

**1. Emergency Management**

- a. Report from DEMA
- b. Status Duxbury Radiological Emergency Plan- Instructions provided for Dept Heads & Public?
- c. Other

**2. Annual Report- review – approve- due October 1**

**3. NDCAP Sept 27 meeting - follow up <https://www.mass.gov/info-details/nuclear-decommissioning-citizens-advisory-panel-meetings#upcoming-meetings->**

**4. BOS letter Legislators-follow up**

**5. Cask Monitoring Bill - follow up**

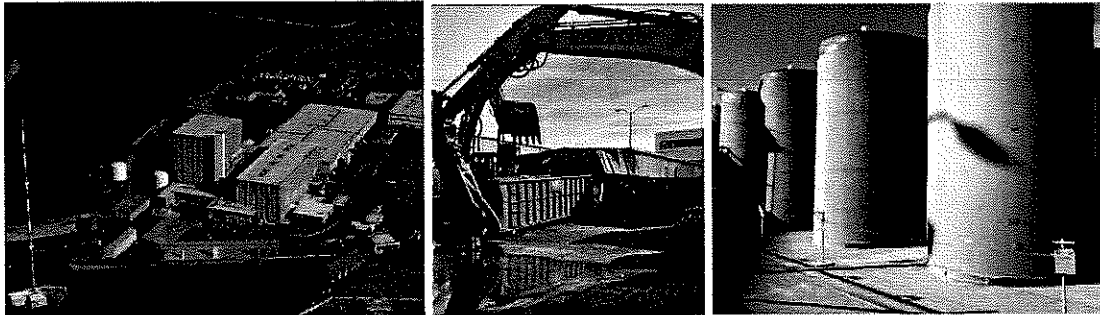
**6. Set DNAC issue goals for remainder year**

**7. Approve minutes**

**8. Other**

## Duxbury Nuclear Advisory Committee Annual Report 2021

Mary Lampert, Co-Chair; Rebecca Chin, Co-Chair; Nancy Landgren; Patrick Gagnon; James Lampert; Megan Driscoll Greenstein

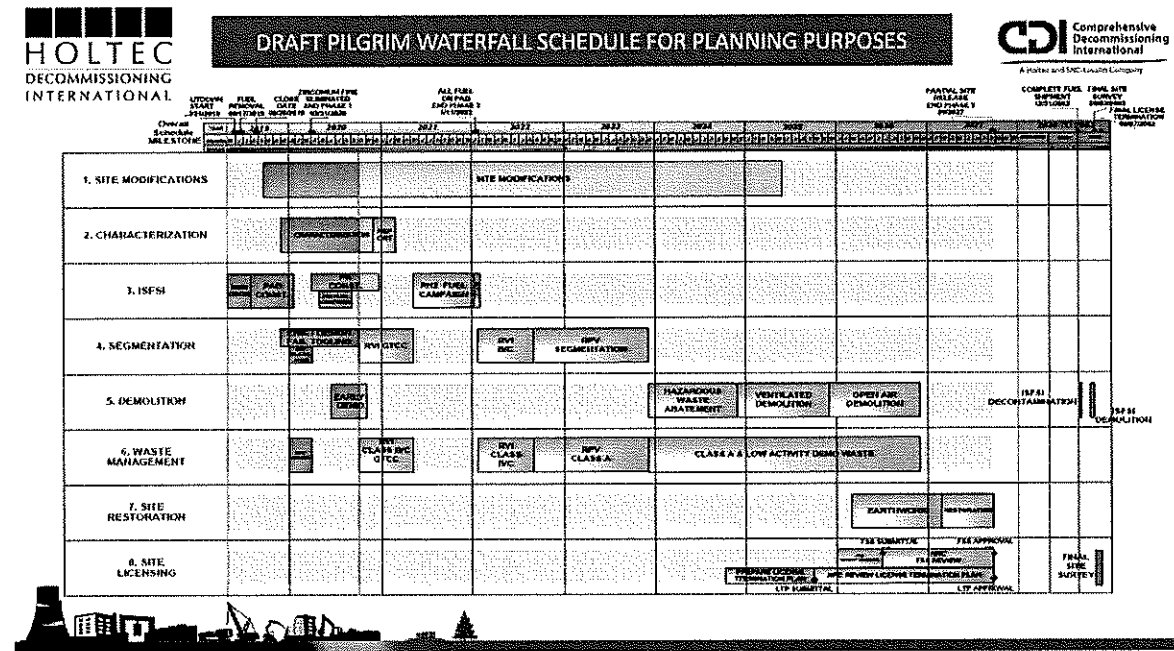


Pilgrim began operations in 1972 and permanently shut down May 31, 2019, after 47 years of operations. Post operations, the Duxbury Nuclear Advisory Committee reviews the Pilgrim Nuclear Power Station's decommissioning process as it impacts the town's health, safety, and environment.

### Decommissioning (June 2019 forward)

Decommissioning involves decontaminating the site to reduce residual radioactivity and hazardous chemicals to allowable levels, dismantling the principle structures, removing contaminated materials to disposal sites and, after NRC approval, releasing the property for other uses. The new owner, Holtec-Pilgrim LLC is responsible for the site until NRC releases the license. There are two licenses for Pilgrim. One for the reactor site and another for the spent fuel storage installation (ISFSI). The ISFSI license will not terminate until all the spent nuclear fuel is sent offsite, requiring that either an interim or permanent spent fuel storage facility is licensed and available. None currently exists.

### Decommissioning Schedule



**Pilgrim's owner:** Pilgrim's licenses were transferred from Entergy to two limited liability companies (LLCs), Holtec Pilgrim LLC (owner) and Holtec Decommissioning International LLC (HDI, operator). Holtec also formed Comprehensive Decommissioning International LLC (CDI). CDI is jointly-owned by Holtec and is responsible for deconstruction and cleanup. Holtec formed a partnership for cleanup with a Canadian company, SNC-Lavalin. Numerous news media have reported that Holtec and SNCL have a long-standing history of corruption, fraud, bribery and lying in connection with their corporations' business dealings.

**Main concerns of the committee regarding decommissioning:**

**Spent Fuel:** Spent nuclear fuel assemblies will be moved out of the pool by November 2021. All the fuel that Pilgrim has used since 1972 will be placed in 61 dry casks on a newly constructed pad (Independent Spent Fuel Storage Installation, ISFSI), 362 feet from Rocky Hill Road. The casks are thin (0.5") stainless steel canisters that may crack within 30 years. Pilgrim began loading casks in 2014, in 2044 they will be 30 years old. The company provides a warranty for 25 years for design, material and workmanship. Currently there is no technology to thoroughly inspect, repair or replace cracked canisters. With limited monitoring, we will only know after the fact if a canister leaks radiation. Each cask contains half the Cesium-137 as the total released at Chernobyl. The casks are vulnerable to a terrorist attack. They are stored out in the open with only vegetation to prevent a line-of-sight attack. The committee's 2021 ATM article addressed these safety issues. It was overwhelmingly approved and forwarded to federal and state officials asking for their support. To date, shipments of non-fuel radioactive waste has been shipped to a facility in Texas.

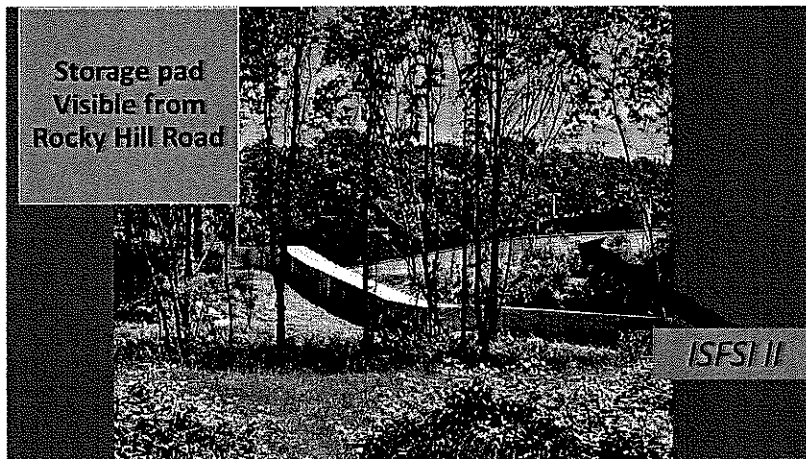


Photo taken onsite by trespasser

**Site Restoration:** The site is supposed to be returned to "greenfield" for unrestricted use - radioactivity and chemical contamination cleaned up. This is important to Duxbury to ensure that contaminants left on site will not pollute the bay. The state's radiological cleanup standard, less than 10 millirem per year from all pathways, is stricter than the federal standard. Chemical contaminants, including, for example, oils, PCBs, asbestos, herbicides, and PFAS must be removed to meet Massachusetts and EPA standards.

An initial Site Assessment Plan by Holtec's contractor, ERM, commenced in 2020. It was insufficient. A revised Site Assessment Plan also was prepared (<https://www.mass.gov/doc/may-28-2021-environmental-site-assessment-work-plan-for-pilgrim/download>). It did not meet the requirements set out in the Settlement Agreement between the state and Holtec. The Revised Site Assessment concluded there was no significant soil radiological contamination; and there is PFAS in groundwater and numerous metals exceedances in groundwater, attributed to turbidity. We concluded that a more

robust analysis and site assessment plan would conclude otherwise. The NRC requires a final site characterization two years prior to the date of license termination. The license termination plan review is subject to a hearing opportunity. Split samples will allow independent MDPH verification of analytical results.

**Financing decommissioning:** Holtec Pilgrim and HDI brought no money to the table. Holtec Pilgrim became the owner of the Decommissioning Trust Fund (DTF), to pay for decommissioning. The DTF was funded by Massachusetts ratepayers many years ago - neither Boston Edison, Entergy nor Holtec put a dime into the fund. At the time of the sale from Entergy to Holtec, the fund had grown through investment to \$1.03 billion dollars. The Pilgrim Nuclear Decommissioning Trust (NDT) fund balance as of December 31, 2020, was \$881M, reflecting expenditures. The 2020 estimate to complete decommissioning is \$824 M (2020 dollars). Of that total estimate, the revised estimate for license termination expenses is \$370 M, the estimate for spent fuel management costs is \$417M, and the estimate for site restoration is \$37M. No additional funds will be collected. When that fund is spent, it will not be possible to get more money from the owner, Holtec Pilgrim LLC, or HDI LLC, the operator. There is no parent company guarantee from Holtec International. The owner and operator are Holtec limited liability subsidiaries. There are no bonds or other financial guarantees. NRC suggested that monies recovered from DOE, for spent fuel management expenses for DOE's breach of contract for not taking the spent fuel by 1998 as promised, could be used. But the NRC cannot require any DOE recovery actually be made available to pay decommissioning costs. If cleanup costs exceed Holtec's expected \$40 M, or spent fuel remains on site after 2062, the state will likely be left as payer of last resort. The owners have the potential to make over \$800 million in profit from decommissioning Pilgrim irrespective of whether there is enough money in the DTF to complete the job.

**NRC actions:** In addition to approving the license transfer, NRC provided regulatory exemptions that will save Holtec money at the expense of public safety. NRC exempted Pilgrim from offsite emergency planning obligations effective April 2020, 10 months after the reactor was defueled. FEMA and MEMA objected recognizing that the Commonwealth's All-Hazards Emergency Plan was insufficient in a radiological disaster, but to no avail. Duxbury Emergency Management no longer receive monies from Pilgrim for emergency planning expenses Duxbury must incur due to our proximity to Pilgrim. DEMA had received approximately \$85,000 annually, plus equipment replacement and training. Duxbury Fire Department is part of a mutual aid program responsible to provide help in the event of a fire onsite at Pilgrim. Duxbury EMD's concern that Duxbury was not receiving necessary education and training to fight a fire onsite finally seems to be resolved.

NRC exempted Pilgrim from enacting cyber security upgrades. The Commonwealth's Settlement Agreement restored a requirement for cyber security. Also, Pilgrim was exempted from offsite liability insurance requirements, allowing Pilgrim to reduce the required level of primary off-site liability insurance from \$450,000,000 to \$100,000,000 and eliminate the requirement for Pilgrim to carry secondary financial protection. Last, NRC exempted Pilgrim from NRC regulations restricting use of the decommissioning trust fund to removing radioactivity, allowing the licensee to use the fund for spent fuel management and soil restoration expenses.

**State Legislation:** The committee supported legislation filed on issues pertaining to decommissioning, especially a proposed bill to provide real-time monitoring on each spent fuel dry cask. Our state legislators, and others representing the South Shore and Cape Cod, were very supportive.

