**NUCLEAR DECOMMISSIONING CITIZENS ADVISORY PANEL (“NDCAP”)**

**Monday, September 27, 2021**

**Hybrid In-Person/Virtual Meeting**

**Meeting Minutes**

Meeting called to order at about 6:30 pm by NDCAP Chair John Mahoney.

**NDCAP MEMBERS PRESENT**

* John T. Mahoney, Representative of the Town of Plymouth (Chair) (in person)
* Pine duBois, Speaker of the House Appointee (Vice Chair) (in person)
* David C. Nichols, Governor Baker Appointee (in person)
* Mary Lampert, Senate President Appointee (in person)
* Pat O’Brien, Representative of Pilgrim Nuclear Power Station (in person)
* Seth Pickering[[1]](#footnote-2), Department of Environmental Protection (in person)
* John G. Flores, Governor Baker Appointee (virtual)
* John Moylan, Pilgrim Nuclear Power Station Site Vice President (virtual)
* Susan Whitaker, Executive Office of Housing and Economic Development (virtual)
* Robert Hayden[[2]](#footnote-3), Department of Public Utilities (virtual)
* Jack Priest, Department of Public Health, Radiation Control Program (virtual)
* Mary Waldron, Old Colony Planning Council (virtual)
* John Viveiros,[[3]](#footnote-4) Massachusetts Emergency Management Agency (virtual)

**NDCAP MEMBERS NOT PRESENT**

* Kevin O’Reilly, Speaker of the House Appointee (Resigned, 9/20/21 (email)
* Richard Quintal, Representative of the Town of Plymouth
* Richard Grassie, Minority Leader of the House Appointee
* Amy Naples, Senate President Appointee
* (Vacant), Minority Leader of the Senate Appointee
* (Vacant), Representative of the Town of Plymouth

**GUESTS IN ATTENDANCE**

* Susan Moran, Senator for Plymouth and Barnstable District
* Marc Pacheco, Dean of the Senate, First Plymouth and Bristol District
* Mike Jackman, District Director for U.S. Representative Bill Keating
* David Noyes, Holtec/CDI
* Scott Young, staff, Sen. Pacheco
* Gerard Martin, DEP
* Sean Mullin, former NDCAP chair
* Richard Rothstein, former NDCAP member
* John Drobinski, ERM

**REVIEW OF MINUTES**

The draft minutes from the July 26, 2021 meeting were reviewed.

Ms. duBois made the following correction:

* Page 6, Line 34— should be updated to “CSG-East” not “CSG-Northeast”
* Page 5, Line 17 – Immediately following the July 26th NDCAP meeting, Ms. duBois received a correction from Mr. Noyes that it was the 11th of June, not the 3rd week of May.

Motion was made to approve the minutes as amended which was seconded.

The July 26, 2021 minutes were approved by unanimous vote.

**PRESENTATION FROM SENATORS SUSAN MORAN AND MARC PACHECO**

Ms. duBois welcomed and thanked Senators Susan Moran and Marc Pacheco to the panel.

Senator Susan Moran

Senator Moran thanked the panel for inviting her. She stated that the Town of Plymouth has become a de-facto spent nuclear waste dump, and raised concerns about spent nuclear fuel being stored in casks near Cape Cod Bay with no long-term plans for removal. Senator Moran said that the sole responsibility and financial responsibility lie with the federal government because the Department of Energy has a legal obligation to store spent nuclear fuel.

Senator Moran then introduced Senator Marc Pacheco, Dean of the Massachusetts Senate.

Senator Marc Pacheco

Senator Pacheco shared that as a member of the National Conference of State Legislators’ Energy Supply Taskforce he visited the French nuclear facility where spent fuel is reused. He stated that he was impressed by the French program with respect to cost, security, and safety.

Senator Pacheco emphasized the limited remaining time available to build clean energy systems to respond to climate change, and that this might challenge the ability to establish public support for a nuclear fuel reuse program.

As Chair of the Council of State Governments – East (CSG-East)’s Energy and Environmental Panel and member of the Energy Supply Taskforce for the National Conference of State Legislators, he shared that both groups are looking at all of the options available. CSG-East is working with 11 Northeastern states, Puerto Rico, Virgin Islands, and the eastern Providences of Canada to work on climate response. One of the concerns brought up by staff at CSG-East is the limited time and significant cost of implementing a program to use spent nuclear fuel.

Senator Pacheco offered to put NDCAP members in touch with former DOE Secretary and current MIT professor and leader of the Roosevelt Project, Ernest Moniz to discuss options related to nuclear energy.

**QUESTIONS FROM PANEL MEMBERS**

Ms. duBois commented that she would accept Senator Pacheco’s offer to be put in touch with Ernest Moniz. Ms. duBois highlighted that there are nuclear facilities throughout New England, and that all of them are or will be looking for ways to deal with spent nuclear waste. She also emphasized the importance of finding options for dealing with Massachusetts-generated nuclear waste in Massachusetts, and that CSG-East is a promising venue for this work.

Mike Jackman, District Director for U.S. Representative Bill Keating, commented that Congressman Keating is aware of the modular nuclear concept and its popularity in Europe. Mr. Jackman stated that he will be following up with the Foreign Affairs Subcommittee to get their input and that he would be listening in for the remainder of the meeting to hear ideas.

Ms. Lampert commented that nuclear reprocessing is not the answer to the spent waste problem. She stated that it is expensive, polluting, and leads to nuclear proliferation. Ms. Lampert emphasized that reprocessing plants are terrorist targets, that there are documented instances of nuclear leaks, and that there is a significant risk of nuclear proliferation. She stated that storing the waste in geologic storage containers is the only responsible solution. She shared that building nuclear reuse sites in Massachusetts is a pipe dream and that the focus should instead be on developing alternative clean energy opportunities. Ms. duBois responded that we have an obligation to deal with the nuclear waste that we generated here in our backyard.

Senator Pacheco commented to clarify that his presence at the meeting should not be seen as advocating one way or the other and that he was simply present to share the information he has learned and to listen to ideas.

Mr. Nichols commented on the need for more federal funding for research and development related to dealing with nuclear waste and suggested that CSG-East may be able to advocate for this additional funding.

Ms. duBois asked that this conversation be brought back to the attention of the Secretary of Energy and Environmental Affairs so that they are aware and engaged.

Several panel members shared their gratitude to the Senators and provided additional ideas and solutions for long-term solutions for nuclear waste.

**PROJECT UPDATE FROM HOLTEC**

General Holtec Update

Mr. O’Brien provided an update of activities at the Pilgrim site and showed a power point presentation.

Mr. O’Brien presented Holtec’s timeline. So far, 17 of 34 casks are completed for the fuel campaign, and 45 of the 62 total casks are loaded. The Fuel Campaign is on track to be completed in November as scheduled.

Since the July 26th meeting, no additional buildings have been demolished. Additional building demolition projects are planned for October, November, and December 2021. Segmentation, waste reduction, and waste management activities are ongoing.

Site Characterization

John Drobinski provided an update on continued site characterization activities, including the collection of soil samples and the installation of 7 new groundwater monitoring wells.

A question was asked to clarify whether there was groundwater on the site and referencing notes from the July meeting suggesting there is no groundwater. Jack Priest clarified that there is no pathway connecting the groundwater with the drinking water. Instead, the water moves into the ocean.

Ms. duBois then sought to confirm that there are no drinking water wells on site. Jack Priest confirmed this.

Gerard Martin then clarified that the aquifer below the site is classified as a “potential drinking water aquifer” because of its high transmissivity; however, it is to be used as a drinking water aquifer because of the site context. It is not a current drinking water source.

A question was asked about where the nearest drinking water well was located. No specific answer was provided, so Ms. duBois requested ERM to report where the closest drinking water well is relative to the site.

A question was then asked about the status of DEP and DPH’s review of Holtec’s environmental site assessment (ESA) work plan and the approval of the plan. Mr. Pickering responded that the topic was up next on the agenda and would be covered.

A question was asked about the rate of buildings being removed and whether any radioactive waste was anticipated to be located in the buildings scheduled for demolition. Mr. O’Brien responded that he believed the AOG building and perhaps the Warehouse had some radiological hazards. He said the radiological hazard identification is part of the pre-demolition process and would be inspected by DEP and DPH.

A follow-up question was asked about how dust is controlled during the demolition of these buildings. Mr. O’Brien answered that the majority of buildings are made of sheet metal and that there would be dust mitigation steps in place for the other buildings.

Mr. O’Brien said that Holtec hosted the League of Women Voters of Plymouth, Ms. duBois, several DEP staff, and several DPH staff for tours of the site.

A question was asked about whether there are monitors in place during demolition. Mr. O’Brien stated that everything is surveyed before it leaves site. Ms. Lampert followed up to clarify whether the workers would be wearing monitors during demolition. Mr. O’Brien confirmed that workers wear TLD monitors and real-time monitors any time they are in a radiologically controlled area.

Mr. Mahoney stated that he had received a text message that the nearest municipal drinking water well is the Wanos Well, but that the exact distance was not yet known. It was requested that ERM follow up to confirm this information.

**INTERAGENCY WORK GROUP (IWG) REPORT**

Mr. Pickering presented an update of IWG activities.

DEP and DPH have completed their review of the ESA Workplan submitted by Holtec, and will be working with the AGO to provide a formal response. When the response is available, it will be shared with the NDCAP.

Mr. Pickering clarified DEP’s process for reviewing asbestos demolition notifications before the demolition begins.

Mr. Pickering said DEP is working with Holtec on Response Actions related to PFAS. Gerard Martin added that Holtec has a year to complete the Response Actions, and if Holtec is not able to complete the Response Actions within the year, they must start taking Comprehensive Response Actions. The one-year date would end in Spring 2022.

A question was asked about where the PFAS originated. Mr. Martin answered that this is what is under review by Holtec. It may be incidental use of some material that had PFAS in it, but it may be difficult to determine. There are several sample locations where PFAS was found.

A question was asked about the capacity to identify any PFAS present onsite. John Drobinski responded that Holtec would look at several factors to try to determine as much as they can.

Mr. Pickering shared that Holtec has responded to all required actions in response to the asbestos Notice of Non-Compliance.

Mr. Pickering said that DEP and DPH continue to meet with Holtec on a monthly basis. DEP has provided Holtec with guidance on the planting scheme and associated adjustments to the wastewater treatment system that requires permitting. Holtec will abandon 12 of the 36 leaching pits that serve the soil absorption system.

A question was asked about whether there would be plantings in the leaching pits. Mr. Pickering responded that the leaching system is much larger than it needs to be for the current use of the site. This is where the proposed plantings would go. Holtec now has the information needed to submit a permit request for modifications to the wastewater treatment system.

A question was asked about the type of pollution that the pits are designed for. Mr. Pickering clarified that they are not for radiological waste and are for typical sanitary discharge.

 Mr. Pickering said that EEA is considering NDCAP’s invitation for the EEA Secretary to join a future meeting. Ms. duBois stated that NRC and perhaps DOE may be joining in November, and that the meeting would be an opportunity for EEA to attend.

**PREPARATION FOR NDCAP ANNUAL REPORT**

Mr. Mahoney stated that it was time to begin pulling together the annual report.

Ms. duBois stated that Richard Grassie has offered to organize the report again this year. She also suggested that the IWG should write its own part of the annual report—that the NDCAP should not be writing the IWG part of the report. Ms. duBois suggested that the AG’s office should write up a status update of the settlement agreement and Holtec should write a status report on the site remediation.

Mr. O’Brien asked what date the report should go through. Ms. duBois responded it should go through the last meeting in November.

**PUBLIC COMMENTS AND QUESTIONS**

James Lampert asked for clarification on the purpose of the report and offered to participate in the preparation of the report. Mr. Lampert then stated that DEP, AG’s office, and other agencies are required to meet regularly per the settlement agreement. He asked how often these meetings occur. Mr. Pickering stated that meetings occur approximately every two weeks. Mr. Lampert then asked if there are any memoranda of these meetings. Mr. Pickering stated he was not aware of any. Mr. Lampert stated that in the past it was communicated that any memoranda would be provided to the NDCAP.

Mr. Lampert asked Mr. Pickering to clarify the status of the review of Holtec’s ESA Workplan. Mr. Pickering clarified it was reviewed by DEP and DPH and currently the AGO is preparing a formal response. Mr. Lampert asked to confirm that no comments had been provided to Holtec. Mr. Pickering confirmed this fact.

Mr. Lampert asked Mr. Pickering if DEP and DPH have reached any conclusions about whether there has been compliance with the settlement agreement. Mr. Pickering stated ‘no,’ and that they only provided comments to the AGO.

Mr. Lampert then commented on the discussion of what to do with spent nuclear waste. He stated that there are approximately 100 places in the country where spent fuel is being stored. He stated that none of these locations consented to store nuclear waste long-term, and that this factor would enter the public discussion.

Another commenter (Diane Turco) thanked the panel for the previous year’s report, and specifically the statement that nuclear waste is the single greatest threat to the people and the environment of Massachusetts. She then asked Mr. Pickering if a permit was needed to plant a shrub. Mr. Pickering said ‘no,’ and the permit is needed for altering the wastewater control system. She then stated that small modular reactors are not safe, clean, or green and that resources should instead be focused on alternative renewable sources. She then asked how the panel felt about working with a company that sends waste to communities in New Mexico who do not want it. The commenter concluded by stating that Swiss canisters have far greater monitoring capability and are therefore safer.

Another commenter (Henrietta) stated that Senator Moran has co-sponsored bill S. 1507, “An Act Relative to Monitoring Dry Casks of Spent Nuclear Fuel” and that she is disappointed this bill has not been discussed by the panel. She believes the real-time data coming from each cask would provide increased safety. The Plymouth League, the Falmouth League, the Cape Cod League, and several other groups support this legislation. She stated that it is a shame that it has not been discussed by the NDCAP panel in the last 3 months, and that it would be helpful if the NDCAP provided commentary on the bill. She concluded that she believes the current storage situation, while low probability, carries an extremely high risk from terrorism, corrosion, etc.

**NDCAP Membership and Procedure**

Ms. Lampert stated that the NDCAP is down three members. Mr. Mahoney stated that he and the Vice Chair have discussed reaching out to the appointing authorities to replace those members. Ms. Lampert continued that the Town of Plymouth appointee has not attended any meetings. Ms. Lampert asked whether the NDCAP should have a limit on the number of meetings that can be missed by panel members. She also suggested Plymouth should have three at-large members given that the Plymouth Nuclear Matters Committee appears not to be active.

Ms. Lampert also raised the issue of a template for panel questions. She stated that Mr. Priest had offered to work with Mr. Lampert and a draft amalgamated template for questions to send to the NDCAP chairs was submitted. Although a template was provided, a final approved document not been completed. Mr. Priest suggested that other panel members should be engaged and a member could volunteer to do that. Ms. Lampert volunteered to take on this task. Mr. Mahoney stated he and the Vice Chair would take the issue under advisement.

**WRAP UP AND ADJOURNMENT**

A motion to adjourn was made and seconded. The motion passed unanimously.

The meeting adjourned at about 8:45 pm.

**MATERIALS PRESENTED AT MEETING**

September 27th, 2021 – Pilgrim NDCAP meeting slides (from Holtec)

1. Designee of Secretary Theoharides (EEA) [↑](#footnote-ref-2)
2. Designee of Matthew Nelson (DPU) [↑](#footnote-ref-3)
3. Substituting for Samantha Phillips [↑](#footnote-ref-4)