

**NUCLEAR DECOMMISSIONING CITIZENS ADVISORY PANEL (“NDCAP”)
Monday, July 25, 2022
Hybrid Meeting (in-person and virtual)
Meeting Minutes**

The meeting was called to order at about 6:30 pm by Pine duBois.

NDCAP MEMBERS PRESENT

- Pine duBois, Speaker of the House Appointee (Vice-Chair) (in person)
- Mary Lampert, Senate President Appointee (in person)
- Mary Gatslick, House Minority Leader Appointee (in person)
- Henrietta Cosentino, Plymouth Select Board Appointee (in person)
- Seth Pickering,¹ Department of Environmental Protection (in person)
- David Noyes,² Holtec Decommissioning International (in person)
- Susan Whitaker,³ Executive Office of Housing and Economic Development (virtual)
- Jack Priest, Department of Public Health, Radiation Control Program (virtual)
- Robert Jones,⁴ Executive Office of Health and Human Services (virtual)
- John Moylan, Holtec Site Vice President (virtual)
- Mary Waldron, Old Colony Planning Council (virtual)
- David C. Nichols, Governor Baker Appointee (virtual)

NDCAP MEMBERS NOT PRESENT

- Amy Naples, Senate President Appointee
- Richard Quintal, Representative of the Town of Plymouth
- John Viveiros,⁵ Massachusetts Emergency Management Agency
- Robert Hayden, Commissioner, Department of Public Utilities

GUESTS IN ATTENDANCE

- John Drobinski, ERM
- Matthew Daley, ERM
- Jim Cantwell, representative of U.S. Senator Markey

After roll call, Ms. Pine duBois announced that NDCAP was striving to fill vacate seats. Andrew Gottlieb will be filling one of the Governor appointee vacancies. Ms. duBois also mentioned UWUA 369 has an appointee. Appointments are still needed for House Speaker and the Senate Minority Leader.

REVIEW OF MINUTES

Prior to reviewing the May 23, 2022, minutes, Ms. duBois asked the panel whether additional changes were necessary to the March 28, 2022, minutes. Ms. Mary Waldron moved to approve the minutes and the motion passed unanimously.

¹ Designee of Secretary Bethany Card (Executive Office of Energy and Environmental Affairs)

² Appearing on behalf of Pat O’Brien (Holtec)

³ Designee of Secretary Mike Kennealy

⁴ Designee of Secretary Mary Lou Sudders (Executive Office of Health and Human Services)

⁵ Designee of Dawn Brantley (Massachusetts Emergency Management Agency)

The draft minutes from the May 23, 2022, meeting were reviewed.

The following corrections were made:

- Ms. duBois advised that guests in attendance should include John Drobinski, Matthew Daley, and 17 members of the public. Ms. duBois asked for and received a statement from U.S. Senator Ed Markey from the last meeting.
- Mr. Noyes, along with Ms. duBois, referred to page 3 and clarified that PCBs were found in the non-industrial portion of the site. The previous minutes indicated that PCBs were found in the industrial portion of the site.
- Jack Drobinsky should be John Drobinski. NRC representative's name was spelled incorrectly.

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

The May 23, 2022 minutes were approved by unanimous vote.

DISCUSSION

Ms. duBois mentioned the resignation of the previous Chair of the NDCAP, Mr. John Mahoney. In the prior meeting, Mr. Mahoney suggested that a reappointment vote (for Chair) take place during the July 25, 2022 meeting. Ms. duBois asked the panel whether the vote could occur in September, so that time could be spent on filling the panel appointments.

Motion to postpone until September 2022 was made and approved by unanimous vote.

Ms. duBois referred to legislation and read section 14(b) of Chapter 188 of the Acts of 2016. Section 14(b) relates to procedures for appointments. Some of the members on the current panel have exceeded their time prescribed under the statute.

Ms. Lampert asked whether Ms. duBois could send an e-mail with appointment dates of those on the panel. Ms. duBois responded that she could not because she does not have that information but mentioned that every member should know their dates of appointment. Mr. Jones volunteered to compile a list of members on the panel and their dates of appointment.

Mr. Jones commented that responsibilities of the panel can continue despite expired terms. Ms. duBois agreed.

Ms. duBois raised the issue of e-mails and stated that exchange of e-mails amongst the members of the panel was not permitted under the Open Meeting Law. Another issue included new members of the panel not obtaining a copy of the Open Meeting Law. Moving forward, members of the panel will receive a copy of the Open Meeting Law.

Ms. Lampert disagreed with Ms. duBois' statement about e-mail exchanges. Ms. duBois recommended a forum with the state to better understand these procedures and standards.

State Senator Susan Moran was introduced by Ms. duBois. Senator Moran read a statement regarding the discharge of water into Cape Cod Bay and the effects of said activity. Senator Moran emphasized that there must be more oversight from the state to alleviate the burden placed on residents.

Ms. duBois introduced Ms. Betty Cavacco, member of the Selectboard in Plymouth, who read a statement regarding the decommissioning plans. There is concern about the lack of transparency during the decommissioning process of the site, the effects of tourism, the impacts to the local economy, safety, and the future impacts unaddressed by Holtec.

Ms. duBois asked whether Ms. Cavacco could e-mail that statement for the minutes. Ms. Cavacco confirmed that the statement had already been sent.

HOLTEC UPDATE

Ms. duBois introduced Mr. Noyes to provide an update. The update was given in conjunction with a PowerPoint presentation.

Mr. Noyes began with describing the waterfall chart. It shows the major activities that are on-going at the plant. The activities include characterization, dry cask fuel storage, reactor segmentation, demolition, dismantlement, waste management, and site storage.

A PowerPoint slide listed the demolition activities on site. It described the status of the two-story butler building, set for structural demolition between August 1 and August 12. The administrative executive building is set for demolition of the structure in late August. The trash compaction facility is set to be demolished in late August into early September.

The next slide provided an update on the underground storage tank removal. To date, 6 of the 8 storage tanks have been removed. The tanks were used to store fuel oil and diesel oil. Removal was conducted by on-site licensed site professionals (LSP) along with the Plymouth Fire Department.

Mr. Noyes was asked whether there were any leakages identified. Mr. Noyes said there were no leakages and that was confirmed by the LSP.

To date, more than 50% of the buildings on site were demolished to grade. The majority of the remaining buildings are to be demolished prior to the end of the year.

Currently, 13 of the 14 fuel pool racks have been removed from the pool for shipment. The remaining rack is scheduled to be removed tomorrow. Nine of the 13 removed from the pool to date have been sent off site to Texas. The remainder are to be removed during the first week of August. Shipment was truck to rail.

Mr. Noyes explained the site characterization activities.

Removal of the waste continues from the site. To date, 50,000 cubic feet of Class A waste has been removed. The slide listed all the materials that have been removed. The goal is to remove all the waste as it is generated and not have it stored on site.

Mr. Noyes then described the water origins for Pilgrim. The water originally came from Plymouth town water and underwent a demineralization process to support reactor operation. Mr. Noyes advised that the best indicator of the water quality would come from the condensate storage tanks. It was important to maintain high quality water during plant operations.

Ms. Lampert asked Mr. Noyes if he knew when the was the last time those storage tanks were cleaned, specifically the sludge. Mr. Noyes responded that the tanks are empty and there may be some residue left; however, it would not affect water quality.

The most recent water quality analysis on site is listed on slide 13. There is water in the dryer/separator pit, the reactor cavity, spent fuel pool, and the torus. The pH levels of the water are listed on the slide ranging from 6.72 (in the dryer/separator pit) to 7.22 (spent fuel pool) and 7.61 (torus).

Ms. Lampert asked if the water is stored in the torus, would it be after the water was filtered. Mr. Noyes mentioned that the plan is to filter the water in the torus. The water from the dryer/separator pit and reactor cavity would be demineralized and purified before putting in final destination.

Ms. duBois clarified that Mr. Noyes had not made a final decision to store the water into the torus. Mr. Noyes agreed and explained that no decision has been made yet. The plan is to brief the NDCAP in the third or fourth quarter of 2022 about potential disposition of the water. Holtec is responding to a request from Senator Markey's office to conduct a third-party assessment of water quality.

Ms. Lampert stated that any discharge would be against federal and state laws.

Ms. duBois mentioned that the PowerPoint will be made available to the public within the next few days.

INTERAGENCY WORK GROUP (IWG) UPDATE

Mr. Seth Pickering provided an update on IWG activities.

Regarding the environmental site assessment (ESA) work plan, Massachusetts Department of Environmental Protection (DEP), Massachusetts Department of Public Health (DPH), and the Attorney General's Office (AGO) are continuing to review Holtec's responses and comments submitted to the state at the end of January.

The state is working on aspects of the settlement agreement such as demolition of buildings on site, ongoing asbestos removal, solid waste issues, water pollution, and clean up issues. However, the ESA work plan has not been formally approved.

Massachusetts Emergency Management Agency (MEMA), DEP, DPH, and AGO continue to review Holtec's radioactive waste management plan, submitted in response to the AGO's noncompliance letter in November of 2021.

Regarding the NPDES permit and state surface water discharge permit, as stated in prior meetings, U.S. EPA, DPH and MassDEP have not received a formal request by Holtec to discharge spent fuel cooling water into Cape Cod Bay. If such request were received, including sufficient analytical information to make a determination, EPA, DPH and MassDEP would review and provide a determination to Holtec on

the necessary next steps. Any new or amended NPDES permit would be subject to a federal consistency review by the Office of Coastal Zone Management (CZM). There has been no statement or other indication by Holtec about discharging the water from the spent nuclear fuel pool or other wastewater into Cape Cod Bay in 2022.

Sampling of the water in the spent fuel pool including process water was conducted by Holtec. The results were shared with DEP and DPH. The Commonwealth has indicated that it would like to see results of the samples, but no response has been given.

Mr. Pickering stated that future sampling will be necessary of the wastewater on site to reach a conclusion about the final characteristics of the water.

DPH has been made aware of the letter sent to Holtec by the EPA on June 17, 2022. DPH's position is that Holtec must comply with the requirements of the NPDES and surface water discharge permit.

Mr. Pickering gave a status update regarding cleanup at the site. On April 14, 2022, DPH received a 120-day notification for 4 different areas at the pilgrim station site. Several compounds were reported in laboratory data as non-detect but the reporting limit was above the applicable reportable concentration. All other compounds were reported as exceeding reportable concentrations in soil and groundwater. Mr. Pickering listed all the compounds that exceeded the reportable concentrations.

On July 21, 2022, DEP sent Holtec a notice of responsibility letter regarding the compounds that exceeded reportable concentrations. Holtec now has one year for response actions.

Holtec has tier classified the site due to the prior notification and releases of metals and PFAS. Holtec has moved to the comprehensive site assessment phase under the MCP (Massachusetts Contingency Plan). Holtec must begin comprehensive actions until a permanent solution is achieved. Permanent solution is defined to mean a permanent solution with no conditions. The new releases can be incorporated into this ongoing response action, or subject to a new time period.

A question was asked by a member of the public whether the released substances were cleared of EPA standards. Another representative of DEP mentioned that when testing took place on the site, there were no contaminants found on site. Several areas were ruled out. However, other areas are still under investigation. Reported releases are available on the DEP website.

MEMA continues to work with local partners on public safety planning. The agency is continuing to review the NRC's proposed amendments to regulations related to decommissioning; public comments are due by August 30, 2022.

Ms. duBois clarified that the comments to the NRC and the new amendments will not affect decommissioning at Pilgrim.

Mr. Pickering addressed the series of questions submitted via e-mail from Ms. Mary Lampert:

- Does DEP and EOE agree with what EPA says in the June 17, 2022, letter to Holtec? DEP agrees with the EPA that Holtec is not authorized under the current NPDES permit to discharge pollutants from the spent fuel pool.

- What actions has the EPA or DEP undertaken regarding the accidental discharge of pollutants from the electrical vault? No enforcement action has been taken by DEP. Mr. Pickering clarified he could not comment on matters of enforcement.
- Does DEP or EEA along with the AGO have authority to bring suit to prevent threatened violation of a permit, particularly a NPDES permit? Further, has the Commonwealth ever exercised such authority and under what conditions? Mr. Pickering, under advice from the AGO, did not answer the question because it could divulge sensitive legal and strategic decisions and rationales.
- Does DEP and EOEAA have authority to bring suit to prevent threatened violations of the Massachusetts Ocean Sanctuaries Act? Further, has the Commonwealth ever exercised such authority and under what conditions? Mr. Pickering, under advice from the AGO, did not answer the question because it could divulge sensitive legal and strategic decisions and rationales.
- What actions could the Commonwealth take if Holtec says that it will discharge pollutants defined in the Clean Water Act or commercial and industrial waste listed under M.G.L. and 301 CMR? Mr. Pickering, under advice from the AGO, did not answer the question because it could divulge sensitive legal and strategic decisions and rationales.
- Has EEA or DEP discussed discharging water from the spent fuel pool into Cape Cod Bay? Under advice from the AGO, Mr. Pickering mentioned he cannot further comment on the discussion.
- What is the status of the ESA work plan? Mr. Pickering indicated that it is still under review.
- Who bears the burden of proving whether the boron has become radioactive? Mr. Pickering said that Holtec must comply with the NPDES and surface water discharge permit.

Ms. Lampert clarified the question and asked what happens if pollutants were to become activated and radioactive during decommissioning. Mr. Pickering referred the question to Mr. Jack Priest.

Mr. Priest explained concentration levels under the NRC and referred to several federal regulations. However, radioactive material is not regulated by EPA.

- What progress has there been on roles and responsibilities for independent sampling from Senator Markey's team? Mr. Pickering reiterated that Holtec is sampling the water in the spent fuel pool. Those results were presented to DPH and DEP in a virtual meeting. The results include nonradioactive materials.

Ms. Lampert followed up and asked whether DPH and DEP had intentions of doing their own independent sampling of the water. Mr. Pickering mentioned that there was nothing in the permits that would grant the agencies such authority.

Ms. duBois commented that if Holtec agreed to let state agencies do the sampling based on the public or NDCAP's request, there should be no reason why agencies would not.

- In the event of discharging into Cape Cod Bay, each batch of the water would need to be tested immediately before and during discharge, do you agree? Mr. Pickering said without final pollutant concentration data, it is too early to say what sampling would be appropriate. Discharging the water now would violate the current NPDES permit.

Ms. duBois mentioned that to discharge the water into Cape Cod Bay, a new NPDES permit would be required. Under the current permit, such discharge is not permitted.

Ms. Lampert asked whether the fine for discharging is \$150,000. Mr. Pickering could not give an answer regarding the fine amount.

Ms. Cosentino was concerned that DEP had no plans to bring an independent third party to verify and review the sampling results from the water on site. Ms. duBois reminded Ms. Cosentino that there is a LSP on site. Mr. Noyes clarified that the LSP was a qualified chemistry technician.

Ms. Cosentino reiterated the question of whether DEP had plans to oversee the taking of samples of water and then test it. Mr. Pickering said not currently.

Ms. Cosentino mentioned that Holtec agreed to abide by all the regulations and laws of the Commonwealth according to the settlement agreement. Ms. Cosentino believed that Holtec already made the decision to discharge the water into Cape Cod Bay because the torus on site was cracked.

Mr. Noyes corrected Ms. Cosentino and said the torus was not cracked and was structurally sound during the operation of the power plant. Ms. Lampert asked whether there had been any inspections of the torus and surrounding areas because of cracks mentioned in a 2007 MIT report. Mr. Noyes clarified that Ms. Lampert was talking about the supports for the torus, not the torus itself.

Mr. Jim Lampert read a statement regarding statutes and regulations applicable to Cape Cod Bay and surrounding areas.

ERM: PFAS PRESENTATION AND QUESTIONS

Mr. Drobinski gave a brief update on PFAS in conjunction with a PowerPoint. Mr. Drobinski described what PFAS was, its origins, and the adverse effects of PFAS. On site, there are 35 monitoring wells. PFAS was found in 4 of the wells on site.

Under the MCP, several things must be addressed with regards to PFAS including the nature of the PFAS, where it is coming from, how it transports into the environment including the groundwater. The point is to understand the impacts on human health.

Ms. duBois mentioned the several kinds of PFAS that exist. Mr. Drobinski mentioned there has been about six different variations of PFAS found on the site.

Ms. duBois requested that Mr. Drobinski send the PowerPoint to upload to the website.

Ms. Gatslick asked Mr. Drobinski if the drinking water in Plymouth has been looked at to determine whether there was PFAS present. Mr. Drobinski said no, it has not been checked as of recent.

Mr. Lampert asked whether fertilizer was used on the site that may result in sludge. Mr. Drobinski described the site and said the use of fertilizer would have been limited.

Mr. Jim Cantwell read a statement from U.S. Senator Ed Markey to the panel. Mr. Cantwell thanked members of the panel for its advocacy and mentioned that Holtec agreed that they would not discharge the water into Cape Cod Bay without the consent of the stakeholders.

Mr. Cantwell concluded by reminding the panel about split sampling done by an independent party. At this time, there is no named party assigned to conduct the task. Mr. Cantwell hoped that come September, there will be more information.

PUBLIC COMMENTS AND QUESTIONS

Christine Silva, board director of South Shore Realtors, expressed concerns regarding property, potential buyer's concerns, the environmental impacts, and sale prices in Plymouth.

Barry Potvin, chair of the Board of Health in Plymouth, described tritium and the adverse effects of it on the human body. Mr. Potvin explained that PFAS cannot be discharged into Cape Cod Bay due to the risk of development of cancer in humans. Mr. Potvin concluded by mentioning the effects of tourism and the seafood industry in the area.

Diane Turco expressed concerns about contaminants and pollutants. Mr. Noyes explained that the Clean Water Act determines what is a pollutant. According to Mr. Noyes, under the Clean Water Act, Tritium is not a pollutant.

Melissa Lani asked whether any other nuclear power plants have discharged water from holding tanks into the ocean. Mr. Noyes said yes and used Oyster Creek as an example of a plant that discharges into the ocean. Ms. Lani mentioned that cesium is being found in the Pacific Ocean near Fukushima. She then proceeded to ask Mr. Noyes whether that was radioactive, to which he answered yes.

Caroline Howlett asked how environmental surveys were conducted and the effects of discharging on marine animals such as lobsters. Mr. Noyes acknowledged that there was a marine monitoring program that looks at effects on marine animals. A second question was asked on whether there were any examples of damage done to crustaceans and mollusk by nuclear water. Mr. Noyes stated that the studies are predictive.

Bob Murphy mentioned that substances such as tritium and cesium are difficult to treat. Mr. Murphy advised that a rep from the NRC be present at these meetings.

Larry Hurtanian asked whether there was radiological sampling and analysis. Mr. Noyes confirmed that there was radiological sampling, and the results would be released at a future meeting. Larry Hurtanian does not want any release into the bay.

Pat Watson asked whether state law is trumped by regulations of the NRC. Ms. Watson raised concerns about disinformation.

Doctor Benjamin Cronin explained early history about resources in the Plymouth area. Doctor Cronin read a letter from the EPA to the panel regarding Holtec.

Ellie Jarvis asked whether Holtec or the panel has initiated conversations with commercial fishing advocacy groups. Ms. Jarvis also asked who is financially and socially responsible if discharge occurs.

Ms. Lampert said Holtec was liable.

Christine Danielson asked about the cancer influx that would occur if the water were to be discharged. Mr. Noyes mentioned that studies were conducted by Massachusetts and found that there was no connection between the cancers in Plymouth and the powerplant. Ms. Lampert disagreed and said that Mr. Noyes was incorrect.

Stephen Carver stated that a proper study cannot be conducted on the lifespan of a lobster from the larvae stage to the moment it gets to consumers.

ADJOURNMENT

A motion to adjourn was requested by Ms. duBois, made by Ms Gatslick and seconded by Mr Noyes. The motion passed unanimously.

The meeting was adjourned at about 9:30 pm.