

Approved July 24, 2023

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

**Monday, May 22, 2023**

**Hybrid Meeting (in-person and virtual)**

**Meeting Minutes**

The meeting was called to order at about 6:30 pm by Mr. John Mahoney.

**NDCAP MEMBERS PRESENT**

- John Mahoney, Plymouth Select Board Designee (in person)
- Pine duBois, Speaker of the House Appointee (Vice Chair) (in person)
- Mary Lampert, Senate President Appointee (in person)
- James Lampert, Speaker of the House Appointee (in person)
- Mary Jo Gatslick, Minority Leader of the Senate Appointee (in person)
- Michael Fortini, Minority Leader of the Senate Appointee (in person)
- Henrietta Cosentino, Plymouth Select Board Appointee (in person)
- David C. Nichols, Governor Baker Appointee (virtual)
- Andrew Gottlieb, Governor Baker Appointee (virtual)
- Seth Pickering,<sup>1</sup> Department of Environmental Protection (in person)
- Jack Priest, Department of Public Health, Radiation Control Program (in person)
- Jennifer Robertson,<sup>2</sup> Department of Public Health (virtual)
- David Noyes,<sup>3</sup> Holtec Decommissioning International (in person)
- John Moylan, Holtec Site Vice President (in person)
- Kelly O’Brien, UWA Representative (in person)
- Mary Waldron, Old Colony Planning Council (virtual)

**NDCAP MEMBERS NOT PRESENT**

- John Viveiros, Massachusetts Emergency Management Agency
- Jonathan Goldberg, Massachusetts Department of Public Utilities

**GUESTS IN ATTENDANCE**

- Benjamin Thomas, representing U.S. Senator Edward Markey’s office
- Caleb White, representing U.S. Senator Elizabeth Warren’s office
- Michael Jackman, representing U.S. Representative Bill Keating’s office
- State Senator Susan L. Moran
- State Representative Mathew J. Muratore
- State Representative Kathleen LaNatra
- Christopher Jean, staff for Rep. LaNatra
- Neil Sheehan, NRC
- John Drobinski, ERM working with Holtec
- Gerard Martin, Department of Environmental Protection
- Matthew Charette, Woods Hole Ocean Institute
- Irina Rypina, Woods Hole Ocean Institute

**LEGISLATIVE DELEGATION**

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<sup>1</sup> Designee of Secretary of the Executive Office of Energy and Environmental Affairs

<sup>2</sup> Designee of Secretary of Health and Human Services

<sup>3</sup> Replacing Pat O’Brien (Holtec)

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State Senator Moran indicated that she continues to work on an amendment to the legislation that was vetoed by Governor Barker in 2022. The amendment includes:

- A full study on economic and environmental impacts of discharge on the region
- A report from the study would be submitted by November 2025
- Prohibition on MassDEP from issuing a discharge permit to Holtec until after the study

Senator Moran concluded by thanking her colleagues and indicating that she hopes to have this version of the legislation on Governor Healey's desk this summer.

There were no updates from U.S. Congressmen Bill Keatings office.

State Representative Muratore indicated that he was working on a re-draft of the bill introduced to the panel earlier in the year.

### **REVIEW OF MINUTES**

Mr. Mahoney asked whether there were any concerns regarding the March 2023 minutes.

Mr. Noyes referred to the Holtec section in the prior minutes and clarified that Holtec would support having the study done but did not commit to conducting the study.

Ms. Cosentino asked to correct the spelling of Margaret Raskin's name (second to last page of minutes).

A motion to approve the March 2023 meeting minutes with the corrections was made by Ms. Dubois and seconded by Mr. Lampert. The motion passed unanimously with 1 abstention.

### **ANNUAL REPORT**

A discussion between Mr. Lampert and Ms. Gatslick ensued regarding which version was being voted on.<sup>4</sup> A conversation then took place amongst the panel regarding whether information presented in 2023 should be included in the 2022 annual report.<sup>5</sup>

Ms. Dubois explained to the panel that the purpose of the annual report is to advise the Governor and agencies on issues related to decommissioning. She indicated that the meeting minutes are always posted on the NDCAP website after each meeting.

Mr. Lampert expressed his concerns with the annual report and stated, in his opinion, that Holtec's financial reports should be included. Mr. Priest indicated that the financial report by Holtec has been submitted to the state and is available on the NDCAP's website.

Mr. Mahoney along with Ms. Gatslick agreed that the annual report should be specific to what occurred during meetings within a calendar year. Ms. Lampert disagreed.

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<sup>4</sup> Minute markers 12:55- 18:18 of video. See [NDCAP Meeting: 5/22/23: Nuclear Decommissioning Citizens Advisory Panel #Plymouth - YouTube](#).

<sup>5</sup> Refer to minute markers 19:49-22:01 of video.

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A motion for the panel to continue doing a calendar year report was made by Mr. Nichols and Ms. Walden seconded the motion. There was no discussion. The motion passed.

A discussion took place among Mr. Lampert, Ms. Lampert, and Ms. Gatslick about certain content and statements within the annual report relating to public participation and a suggestion that the public could hold its own meetings.<sup>6</sup> Thereafter, Ms. Gatslick asked Ms. Lampert whether there should be any statements removed from the annual report. The statement in question could be found on page 20 of the annual report. Ms. Gatslick agreed to remove this statement.

Ms. Lampert made additional recommendations on which words and terms to use in lieu of what was currently in the draft of the annual report. Mr. Mahoney asked Mr. Priest and Mr. Pickering which terminology was correct when referring to the different waters at the station. Then, another discussion took place amongst the panel members about the water and how it should be described in the annual report.<sup>7</sup>

A motion that the annual report use terminology found in accordance with the NPDES permit when describing the water was made by Mr. Priest and Ms. Gatslick seconded the motion. A discussion took place among Mr. Gottlieb, Ms. Lampert, Mr. Lampert, and Mr. Priest on how best to describe processed water and similar terminology. The motion was then withdrawn by Mr. Priest. Mr. Priest said he would confirm with MassDEP on which terms should be used to describe the water.

Mr. Gottlieb made a motion to amend the annual report and include a sentence that says “some members of the public and some members of the panel asserted that a proposed discharge of wastewater would be illegal.” Mr. Lampert seconded the motion. A discussion ensued between Mr. Lampert and Ms. Gatslick on where the statement should be inserted. It was determined that page 12 of the report was where the statement should be included. The motion passed.

A motion to approve the annual report with the additional changes discussed tonight was made by Ms. DuBois and Mr. Nichols seconded the motion. The motion passed.

### **WOODS HOLE PRESENTATION**

A PowerPoint presentation was given by Doctor Irina I. Rypina on bay circulation. In summary:

- Mean currents travel South into Cape Cod Bay and curve East towards Race Point/Provincetown.
- Currents typically slow down the further south and east they travel into Cape Cod Bay.
- Currents are influenced by different variables like wind speed and direction and tides.

Doctor Rypina then explained what pathways the discharge could take as well as the models used to make those determinations.<sup>8</sup>

Mr. Lampert asked whether aquaculture sites within Duxbury, Plymouth, and Kingston Bays would be included in their study. Doctor Rypina indicated that the study will try to include those locations.

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<sup>6</sup> Minute markers 31:11- 36:20.

<sup>7</sup> Minute markers 38:00-50:12.

<sup>8</sup> Minute markers 1:12:50-1:19:44.

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Ms. duBois asked whether the study would have any bearing on the velocity and volume of a discharge. Doctor Rypina advised that the study could try looking at those variables, but the models have limited spatial and control resolution.

Ms. duBois then asked whether the model used in the study was a worldwide model or a regional one. Doctor Rypina said it was a regional model specific to Cape Cod Bay and operated by NOAA. Further, Ms. DuBois asked whether the model considered the tides. Doctor Rypina assured her that the model did take tides into account.

Ms. duBois followed up with another question regarding the Deer Island discharge. Doctor Rypina said that the study has not looked into that.

Ms. Lampert asked whether the study area included Stellwagen Bank. Doctor Rypina confirmed that the study area included that location.

Ms. Gatslick asked if currents in Cape Cod Bay are mostly counterclockwise and if they ever go in the opposite direction. Doctor Rypina agreed that the currents are counterclockwise but can reverse. Ms. Gatslick then asked what happens to the water carried into Cape Cod Bay. Doctor Rypina stated that it stays in the lower (southern) portion of the bay for up to three weeks.

Mr. Noyes asked whether the research takes into consideration what the plant has proposed for discharge flow rates and volumes. A discussion took place between Mr. Noyes and Doctor Rypina about what the current maps show and what additional data would be required to include those considerations.<sup>9</sup>

Mr. Lampert asked whether the model differentiates an incoming or outgoing tide. Doctor Rypina said it does to some degree, but the resolution of the model is six hours. The model would not pick up what happens on a smaller scale.

Ms. duBois asked, and Doctor Rypina confirmed, that the study would commence in July 2023 and results released by end of year. Doctor Rypina agreed to be invited back to present the results.

### **HOLTEC UPDATE**

Mr. Noyes briefly updated the panel regarding the major activities associated with decommissioning and a power point presentation was shown. Mr. Noyes presented a waterfall chart showing anticipated timelines for future work.

Partial site release is scheduled for 2031 rather than 2027. Mr. Noyes further described reasons for the delay, what partial site release meant, and future steps.<sup>10</sup>

Structures recently demolished include the old main gate, trash compaction facility, central alarm station building, and safety enhancement program diesel building. Structures scheduled for demolition include the security diesel generator, station blackout diesel generator, and four above ground storage

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<sup>9</sup> Minute markers 1:29:25-1:32:35.

<sup>10</sup> Minute markers 1:36:40-1:40:31.

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tanks. Mr. Noyes reminded the panel and public that Holtec remains committed to recycling and reusing any non-radiological material generated during demolition.

For reactor segmentation, the lower core plate removal is in progress, shroud ring, and jet pumps are scheduled.

For waste management, Class A Waste is being removed from the site as it is generated while Class B and C remain on site.

Regarding regulatory affairs, the annual radioactive release and radioactive effluent operating reports were submitted. Mr Noyes described some of the contents of the reports.<sup>11</sup>

Split sampling with MassDEP and DPH was performed on April 5.

Mr. Lampert asked for an update regarding the transport cast for the Class B and C waste on site. Mr. Noyes said Holtec is in the process of finalizing the design. Once finalized, it will need to be submitted to the NRC.

A conversation took place between Mr. Nichols and Mr. Noyes about the four-year delay, finances, and lack of growth of the trust fund.<sup>12</sup>

Mr. Fortini asked which structures will remain on site and where the water from the spent fuel pool and separator pit were stored. Mr. Noyes listed the structures that would remain on site and explained that the water would be stored in the torus after segmentation.

Mr. Gottlieb asked whether the four-year delay would have an impact on Holtec's use of the water. Mr. Noyes said the use of water would be unchanged in the reactor cavity and spent fuel pool. Some water in the reactor vessel proper may not be available depending on certain variables.

A discussion among Mr. Gottlieb, Mr. Pickering, Mr. Priest, and Mr. Noyes took place regarding the volume of discharge, scheduling, and segmentation.<sup>13</sup>

Ms. Cosentino expressed her concerns about Holtec's transparency.

Ms. Lampert asked what effect the four-year delay had on workers. Mr. Noyes said he did not know at this time.

#### **INTERAGENCY WORK GROUP (IWG) UPDATE**

Jonathan Goldberg and Jennifer Robertson were introduced as new members of the interagency work group by Mr. Pickering.

Mr. Pickering began the update by discussing the water discharge permit.

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<sup>11</sup> Minute markers 1:47:46- 1:49:30.

<sup>12</sup> Minute markers 1:50:53- 1:52:40.

<sup>13</sup> Minute markers 01:55:53- 01:58:41.

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MassDEP and DPH have completed the split sample analysis of the decommissioning water. Results of the analysis are now available to the public. Summaries of the findings were also provided to the panel.

Mr. Pickering explained the events of April 5, 2023:

- Representatives from MassDEP and DPH met with Holtec at the Pilgrim Station to collect samples from the spent fuel pool, the dryer separator pit, and torus.
- The samples were taken by Holtec under the direct observation of individuals from MassDEP, DPH, and the Town of Plymouth.
- The samples were then transferred by personnel from MassDEP and delivered by DPH contracted shipping to Gel Laboratories in South Carolina for non-radiological pollutants.
- DPH samples were delivered to the Mass. Environmental Radiation Lab for radiological pollutants.

Twenty-two of the 239 non-radiological parameters that were analyzed were detected above the method detection limit. Four radiological parameters were detected including tritium. Holtec also submitted their findings which were within expected ranges to the analytical results that were collected.

MassDEP and EPA are now in receipt of the NPDES and surface water discharge permit modification applications submitted by Holtec on March 31, 2023. There will be a review of the applications in light of all applicable state laws and regulations.

Mr. Pickering indicated that the Healey-Driscoll administration has serious concerns about the proposed discharge into Cape Cod Bay.

Mr. Martin stated that the results of the sampling were now available including a short summary, tables, and comparison with Holtec's results. He drew awareness to several errors and corrections.<sup>14</sup>

MassDEP and DPH along with the MassAGO continue to review Holtec's environmental site assessment work plan and radioactive waste management plan. Response action plans under the Massachusetts Contingency Plan are ongoing. The report is to be submitted by April 21, 2024.

MassDEP's asbestos sections continues to be actively engaged in overseeing the demolition activity occurring at the site and meets regularly with the company to manage the asbestos.

MassDEP continues to review Holtec's request to change its wastewater disposal system on site to a Title 5 system.

MEMA continues to work with local partners on public safety planning.

Ms. Lampert asked questions about the sampling procedures. A discussion ensued among Ms. Lampert, Mr. Pickering, and Mr. Noyes on circulation of the water, the location of the sampling, and water volume.<sup>15</sup>

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<sup>14</sup> Minute marker 2:14:17-2:15:46.

<sup>15</sup> Minute marker 2:17:16- 2:20:10.

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Mr. Mahoney asked Mr. Pickering when the next round of testing would take place knowing that amended permits may happen in the future. Mr. Pickering could not answer Mr. Mahoney's question because the permit is under review and a number of questions remain.

Ms. Lampert asked Mr. Noyes questions about the filtration system. Mr. Noyes asserted that the filtration systems that were in use when the plant was operating are different than the ones currently used. Demineralization remains the same.

Ms. Cosentino asked what a Title 5 septic system was. Mr. Pickering explained that the current wastewater system is a conventional treatment system. Flows are reduced now, so Holtec would like to modify the system to handle only sanitary flows.

### **PUBLIC COMMENTS & QUESTIONS**

Nathan Murphy expressed his disapproval on the decision to decommission Pilgrim. He concluded his statement with a series of questions to the panel and public.

Brian Campbell expressed his support for the water discharge into Cape Cod Bay. He advised that it is the safest option available.

Art Desloges indicated his concern on the public's ability to comment and express their opinions during these meetings. In accordance with state law, these meetings are considered public forums. He hopes that the chair will affirm the public's right to comment.

Paul Galvin had two questions regarding outfall temperatures and dilution. Mr. Noyes provided an answer to each question.<sup>16</sup>

Doctor Barry Potvin stated that the Plymouth Board of Health has a duty to protect residents from imminent harm. A discussion and a series of question took place between Doctor Potvin and Mr. Noyes about the dry casks and their storage.<sup>17</sup>

Ben Cronin referred to Article 19 of the Massachusetts Constitution and indicated that members of the public have a right to comment and assemble.

An individual who did not provide a name explained the importance of language and context during these meetings. She does not appreciate manipulating the context of certain words.

Richard Rothstein had questions for Doctor Rypina from Woods Hole about the NOAA modeling. Mr. Mahoney indicated that the Woods Hole representatives were no longer in the meeting, but would return in the future.

### **ADJOURNMENT**

There was a motion to adjourn. The motion passed.

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<sup>16</sup> Minute marker 2:39:53- 2:42:27.

<sup>17</sup> Minute marker 2:42:27-2:47:21.