

Three Empire State Plaza, Albany, NY 12223-1350 www.dps.ny.gov

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July 31, 2023

**VIA EMAIL** 

Hon. Michelle L. Phillips Secretary to the Commission 3 Empire State Plaza Albany, NY 12223-1350

Re: Matter No. 21-01188 – In the Matter of the Indian Point Closure Task Force and Indian Point Decommissioning Oversight Board.

Dear Secretary Phillips:

Please accept for filing in the above-captioned matter, the July 31, 2023 Indian Point Decommissioning Oversight Board public forum presentation. Should you have any questions regarding this filing, please contact me. Thank you.

Respectfully submitted,

Tom Kaczmarek Executive Director

Indian Point Closure Task Force

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Indian Point Decommissioning Oversight Board



# Indian Point Decommissioning Oversight Board Public Forum

## Welcome



### **Decommissioning Oversight Board**

- The DOB provides venue for information exchange, oversight coordination, and public engagement
- Our goal is to help ensure that decommissioning is SAFE, PROMPT, AND THOROUGH
  - These were the key public interest principles that guided the agreement to approve the sale of the plant to Holtec
  - Agreement signed by Riverkeeper, Westchester County, Public Utility Law Project, Town of Cortlandt, Hendrick Hudson School District, Village of Buchanan, DPS, DEC, DHSES, NYSERDA, Attorney General, Entergy, and Holtec
- Our hallmark is that we are attentive to community perspectives
  - All questions are responded to; When facts show gaps, we seek to fill them



### **DOB Meetings To Date**

- First meeting on June 23, 2021
- 12 total meetings to date, 11 included a public statement hearing
- The DOB has held 2 public forums dedicated solely to answering questions from the community, and 1 stand alone public statement hearing. Tonight is the third public forum.
- In addition, there have been approximately 200 questions responded to in writing by the DOB since its formation, not including the most recent questions submitted for tonight's forum, which have been addressed and posted on the DOB website.



### Responsive to Community Feedback

- Increased frequency of meetings and scheduled them in advance
- Improved hybrid meeting platform
- Overhauled website to improve navigability and added info
- Continue to respond to questions
- Guest speaker presentations and federal agencies (to date: Courtney Williams, Tina Volz-Bongar, Michele Lee, Dr. Catherine Falvo, Richard Kuprewicz, NRC, EPA, PHMSA, DOE)
- Regular presentations and Q&A with Holtec and Enbridge



### Filling Gaps

- Financial assurances protecting trust fund, timeframes for spent fuel storage in dry cask
- Comments submitted to NRC opposing license exemptions
- Hired State Resident Inspector who works from site
- Gas pipeline protections and protocols
- Enforceable dust mitigation conditions in local demolition permits
- Monitoring Work Group and Community Air Monitoring Plan
- Grant to BV School for environmental assessment



### **Public Forum**



#### **General Logistics**

- In-person panelists: Use mic when speaking.
- Panelists joining by Zoom: Keep mics muted unless speaking.
- For Zoom participants:
  - Please reserve the "Chat" feature for reporting technical issues (e.g., audio visual issues). Only questions captured in "Q&A" field are able to be saved for review.
  - Virtual participants are encouraged to use custom video layout features to enhance view of speakers and presentation content. Go to support.zoom.us to learn how.
- All panelists and participants: Indicate your name before speaking.

### **Public Forum Logistics**

- Public Forum will be organized by topic area.
- Pre-submitted questions will be read aloud for panelists to respond; the moderator will then afford questioners an opportunity ask a follow-up question or for further clarification.
- In order to afford all individuals an opportunity for questions to be heard, the moderator may ask that some discussions be paused until future meetings.
- Time permitting, additional questions will be addressed
- The public forum will conclude at 9:00 pm. Questions not addressed during the meeting will be answered in writing.

### **Public Forum Topics**

- 1. Administration
- 2. Workforce
- 3. Joint Proposal
- 4. Water Discharge
- 5. Regulatory Standards
- 6. Dry Cask Storage
- 7. Biological and Health Studies
- 8. Emergency Preparedness
- 9. Gas Pipelines



#### Administration

- "Why are you running the DOB in an authoritarian, undemocratic way shutting out public influence, not heeding our requests for independent safety, health and emergency preparedness experts, not heeding our requests for a frontline community representative on the DOB and an open chat during meetings?"

  Suzannah Glidden
- "Can Dave Lochbaum prepare a "take down" presentation of Holtec's dry casks like he did for water tanks? Or does he only see flaws when they suit his opinions?" Courtney Williams
- "Will there be discussion of Hardened OnSite Storage?" Courtney Williams



#### Workforce

• "Are there any available job retraining programs for former employees at Indian point, to retrain them on working with Solar or Wind energy equipment?"

Elizabeth Castaldo



### **Joint Proposal**

- "Is the Joint Proposal predicated on the Post-Shutdown Decommissioning Activities Report (PSDAR) and Decommissioning Cost Estimate (DCE), that was submitted by HOLTEC in 2019?" Warren Smith
- "Did all signatories have access to the PSDAR and the DCE prior signing the Joint Proposal on April 14th 2021?" Warren Smith
- "Who signed the document and what terms did the Signatories agree to?"
   Warren Smith



#### Legislation

- "What is the status of the bill to ban dumping? Why has Governor Hochul not taken a public stance on dumping the water?" Courtney Williams
- "What effect does the Legislation (2023-S.5181), sponsored by Senator Pete Harckham and Assemblywoman Dana Levenberg, have on the Joint Proposal?" Warren Smith



#### **Economic Impacts**

"What New York State agencies have been consulted to evaluate the potential economic impacts of radioactive discharges to the Hudson River on recreation, tourism, property values as well as employment and tax revenues from these multi-billion industries? Please describe findings. Please describe any and all independent expert economic assessments that have been conducted? If not, why not? Please explain." Ellen Weininger



#### **Testing and Protocols**

• "Please provide the chemical and radiological content of the prior to treatment and then treated effluent, including levels of PFAS, PFOS, PCBs, Boron, Tritium, Kryton-85, Kryton-85m, Cesium-137, Strontium-90, Carbon-14?" Susan Shapiro



Decommissioning Oversight Board

#### **Water Discharge**

#### **Testing and Protocols**

"The Massachusetts Department of Public Health released several reports on May 19, 2023 regarding independent testing of split samples from the Pilgrim nuclear facility that has been undergoing decommissioning by Holtec. Among the 239 nonradiological pollutants that were tested for, 22 were present at concentrations above the detection limit. They included nine PFAS compounds, one semivolatile organic and two volatile organic compounds, eight metals (boron, cobalt, copper, iron, nickel, potassium, zinc, and cyanide and five general chemistry measures (nitrogen/nitrate, oil and grease, pH, total dissolved solids and chlorine). The Massachusetts Department of Public Health report also revealed five radioactive isotopes above the detection limit: manganese-54, cobalt-60, zinc-65, cesium-137, and tritium. According to Ken Buesseler, a marine radiochemist at the Woods Hole Oceanographic Institution, who reviewed the results, samples of tritium, a radioisotope that cannot be treated, averaged about 100,000 becquerels per liter, about a million times higher than average background levels in the ocean. "The numbers for cesium-137 in the untreated water are 200 million times higher than what's in the ocean right now." Further tests would be needed to determine levels of other radioisotopes such as carbon-14 and strontium-90, plutonium and uranium, which require more advanced testing. "Once you see these other isotopes at these levels, you know there's other forms of radioactivity than just five radionuclides." Buesseler says the best solution for the wastewater is to store it onsite after it is treated. Describe the steps that the U.S. EPA Region 2, NYS DOH, NYS DEC and other state agencies are taking to ensure the implementation of comprehensive, transparent, independent expert analyses of the wastewater proposed for discharge from Indian Point are conducted. What analyses have been conducted to date? What is the inventory of radionuclides from the Indian Point fuel pools? What radionuclides will be tested? What nonradiological co-pollutants will be tested? What is the timeline for independent expert analyses? What protocols, specific testing equipment and certified laboratories are involved in the process? What qualified independent experts are involved in the process?" Ellen Weininger **Indian Point** 

#### **Tritium**

- "What is the total amount of tritium is projected to currently exist at Indian Point that needs to either be disposed or stored?" Susan Shapiro
- "What is the total amount of tritium that has already been released during operations at Indian Point?" Susan Shapiro



**Indian Point** 

#### **Water Discharge**

#### **Water Storage Tanks**

- "Has Holtec submitted an application to the NRC for any storage tanks at Indian Point? If so when, and please provide the application?" Susan Shapiro
- "Has Holtec submitted any applications to the NRC for storage tanks at any other facility? If so when, and please provide the applications and decisions." Susan Shapiro
- "Approximately now long would it take for the NRC to grant approval of storage tanks, once applied for? Please explain the application approval process." Susan Shapiro
- "What is the difference between approval of radioactive effluent storage tanks and spent fuel casks?" Susan Shapiro

**Decommissioning** 

### **Regulatory Standards**

- "During the June 15th DOB meeting, there was a question asked about cancer risk from exposure to radionuclides from nuclear power facilities and the NRC representative said it is .1% for all populations. Where did this number come from? The representative went on to affirm that this number pertains to all populations, including fetuses and pregnant women. It is critically important to understand the source and validity of this information, so I am asking for proof that the regulations are based on all populations, including fetuses and pregnant women." Susan Van Dolsen
- \* "The NRC commissioned a cancer study from the National Academy of Sciences. The Phase II study was terminated due to cost. The termination of the study due to cost is very unfortunate and creates a situation where the public doesn't have confidence that the regulations for radioactive releases from nuclear power facilities are based on the most protective possible standards. Would the NRC address this lack of confidence and provide more scientific basis for the current radioactive regulations that are being followed during decommissioning of Indian Point and other closed nuclear power facilities?" Susan Van Dolsen

### **Regulatory Standards**

"The NRC License Termination Rule (LTR) policy has a radiological standard for "unrestricted use" of 25 millirems per year, which is based on a cancer risk of 1 in 500 people. This means the exposure to all remaining radioactive materials after remediation is estimated to result in one in 500 people contracting cancer. The EPA has stated in 1997 testimony, a 2000 letter, and a 2014 memorandum that the NRC LTR policy is not protective. EPA requires a risk range of 1 in a million (10-6) to 1 in 10,000 (10-4) cancer incidence risk. For instance, an EPA official stated: [The NRC policy] "would not adequately protect either the health of our citizens or our nation's natural resources ... To put it bluntly, radiation should not be treated as a privileged pollutant. You and I should not be exposed to higher risks from radiation sites than we would be from sites which contained any other environmental pollutant." I would like to ask the NRC and EPA to explain why an unprotective standard is allowed to exist and why the public should be subject to this risk? What will the EPA do to support a state-led approach to regulating waste from Indian Point so that NY State can require the NRC to use the risk range of 1 in a million cancer risk?" Susan Van Dolsen, Ellen Weininger



### **Regulatory Standards**

- "Holtec has never before completed the decommissioning of a nuclear plant, yet it is currently the
  contractor for several units. Until it has demonstrated that it can perform such decommissioning
  safely and efficiently, shouldn't Holtec be held to the highest regulatory standards with substantial
  oversight by the NRC? If so, why then has the NRC continuously relaxed the regulatory standards
  for decommissioning and granted a number of exceptions to the regulations to Holtec?" Joel
  Gingold
- "Can the NRC elucidate how it applies the ALARA principle? In doing so, can the agency explain the principle which guides such application especially where radioactive releases would be deemed within regulatory standards? In other words, how does the NRC ensure principled application of the ALARA principle?" Michel Lee
- "What are the steps the New York State Department of Health, the NYS DEC and other New York State agencies are taking to exercise authority as an Agreement State and as empowered by state law to regulate "pollutants"? Please describe for each agency." Ellen Weininger



#### **Dry Cask Storage**

- "How long did it take the NRC to approve Holtec spent fuel casks being used at Indian Point?" Susan Shapiro
- "Have any of Holtec spent fuel casks leaked, at Indian Point or at any other site?"
   Susan Shapiro
- "What is the projected rate of leakage or damage of the spent fuel casks?" Susan Shapiro
- "Are radioactive releases from the spent fuel casks monitored? If so how?"
   Susan Shapiro



### **Dry Cask Storage**

- "Are the spent fuel casks vented? If so, is the venting monitored for radionuclides? If not, why not? Please provide all monitoring data."

  Susan Shapiro
- "What plan does the NRC have in the event one of the spent fuel tanks leaks or needs to be replaced to prevent the unplanned release of radionuclides?"

  Susan Shapiro
- "What chemicals and radioisotopes are present in the spent fuel casks?"
   Susan Shapiro
- "What plans does the NRC have to fund replacement or repairs of spent fuel casks, if needed?" "In the event replacement or repair of the spent fuel casks are required who is be responsible for the costs?" Susan Shapiro

### **Dry Cask Storage**

- "Is the federal government responsible for monitoring and storing nuclear waste? If not, who is responsible? Is the host state, New York, responsible for the costs of long term management of nuclear waste within the state, in the event long term repository has not been approved before Holtec completes decommissioning of Indian Point?" Susan Shapiro
- "Will Holtec be permitted to take the funds remaining after decommissioning if nuclear waste remains at the Indian Point site?" Susan Shapiro



#### **Biological and Health Studies**

- "Please provide reports supporting how the protective standard was determined. In 2010, the NRC contracted with the National Academy of Sciences (NAS) to perform such a study. Analysis of Cancer Risks Near Nuclear Facilities: Phase 2 Pilot Planning" (ADAMS Accession No.: ML15035A135). (p 3). Why did in this health study commence?" Susan Shapiro
- "What was the projected time frame of the NAS study? What was the projected cost?" Susan Shapiro
- "Why did the NRC decide to cancel the NAS study in 2015?" Susan Shapiro



**Decommissioning** 

#### **Biological and Health Studies**

- "What studies have been done to consider the impact of dumping the radioactive effluent on backup New York City backup drinking water supply? What studies have been done to consider the impact of dumping the radioactive effluent into the Hudson River on desalination facility in Haverstraw Bay, which the PSC has left on the table as an option to increase Rockland's County limited drinking water supply?" Susan Shapiro
- "We are told by the DOB and other financial "stakeholders" in the project ( that don't include the public!) that the 7 communities and over 100,000 households who draw drinking, bathing and cooking water from the Hudson should not be alarmed about radioactive wastewater dumping into the Hudson because our water intakes are too far away. Can you share the historic and current and impartial peer- reviewed scientific data on measurable levels of radionuclides already in the Hudson, a bidirectional tidal river with documented legacy hotspots already that make a basis for that belief? And have you ensured comprehensive predictive modeling, recent testing and sampling you can share with the public given the enormous twin public health and economic risks of radioactive waste releases into the Hudson? Where can the public see that data and modeling?"

Lee Gough

#### **Biological and Health Studies**

- "What studies have been conducted to analyze the impact radioactive tritium, krypton-85, krypton-85m and carbon-14, have on the DNA of the biota- flora and animals- including human beings?" Susan Shapiro
- "Is the standard America man the standard relied upon for exposure by the NRC?" Susan Shapiro
- "What health studies have been conducted to determine the impacts of exposure to tritium on human health and biota?" Susan Shapiro
- "What NRC requirements exist to notify the members Hudson River public who eats fish and mollusks, swim, boat and recreate, if and when, radioactive is released into the River?" Susan Shapiro

**Indian Point** 

Decommissioning Oversight Board

### **Emergency Preparedness**

- "Was there ever a simulation of a real-time emergency with a co-incident of the pipeline and radiological release?" Tina Volz-Bongar
- "What is the plan if a situation occurs which would require evacuation or other emergency response?" Judy Allen
- "Emergency Planning and Preparedness and the lack there of was presented to the DOB last year. However, to date the communities and the surrounding region continue to lack any emergency preparedness in the event of a gas transmission pipeline rupture or a radiological release emergency or both at the Indian Point site. When will an emergency plan and preparedness finally be implemented? There are differences in emergency protocols for radiological and gas pipeline rupture events. Which set of protocols must residents follow? How will residents be notified? Currently, postcards sent to residents continue to provide conflicting information. How will the public know whether "to evacuate" or "shelter in place"? How will the public know NOT to use their cell phones in case of a gas pipeline rupture emergency? If cell phones and emergency communication devices shouldn't be used, since static electricity can ignite gas, how will the public receive and follow emergency response instructions? What kind of monitoring is in place for gas releases and ruptures and radiological releases? In case of evacuation of a gas pipeline rupture, how will residents be warned about vapor clouds? In the event of a vapor cloud from a gas transmission pipeline rupture at Indian Point, what would be the impact to fuel rods in casks and/or canisters?"

Tina Volz-Bongar

#### **Emergency Preparedness**

- "The James Lee Wit Report, commissioned by New York State in the 2000s, found the 10-Mile EPZ Plan does not: 1. provide the structures and systems necessary to protect the public from radiation exposure; 2. address the impact of response of the 40-mile radius to the 10-mile radius; 3. consider the reality and impacts of spontaneous evacuation, not only orchestrated response plans. How did the NRC address the flaws in emergency planning outlined by the Witt Report?" Tina Volz-Bongar
- "In 2013, the U.S. Accountability Office (GAO) issued a report pointing to flaws in the emergency planning at Indian Point in their report, "NRC Needs to Better Understand Likely Public Response to Radiological Incidents at Nuclear Power Plants." What has the NRC done to address these issues?" Tina Volz-Bongar
- "In 2015, The Disaster Accountability Project found communities within 50 miles of the Indian Point Energy Center in Buchanan, N.Y., don't have emergency plans to respond to a nuclear accident — and then first responders in communities within the 10-mile EPZ radius were not prepared for an incident either because of the impact in the surrounding communities that are excluded in this zone. What does the NRC do to enforce Holtec's training, exercises and drills with first responders?"
  - Tina Volz-Bongar



### **Gas Pipelines**

"A sinkhole was found at Woodlands Legacy Field, a popular play area with ballfields in Yorktown located roughly 8 miles from Indian Point. The sinkhole roughly 10 feet wide and 30 feet deep and exposed Enbridge's 42 inch diameter, high pressure Algonquin Incremental Market (AIM) pipeline that was installed in 2016, an expansion of the massive Algonquin gas transmission pipeline system originally constructed in 1952. Subsidence can impact pipeline integrity and underscores the importance of precautionary measures regarding surface overloading, and Right of Way markings for the gas transmission pipelines, etc,.. Have ROWs been marked at the Indian Point site as stipulated in pipeline regulations? Has the Indian Point site been evaluated for subsidence problems? If so, what are the findings? If not, please explain why not. Have independent expert analyses been conducted? Was any subsidence remediation needed and completed at the Indian Point site? Describe follow up for periodic reassessments of potential subsidence problems. What is the plan for extreme flooding events and sea level rise?" Ellen Weininger



#### **ADDITIONAL QUESTIONS**

#### TIME PERMITTING

Questions not addressed previously or during tonight's public forum will be responded to in writing



#### **Frequently Asked Questions**

- DOB FAQs: <a href="https://dps.ny.gov/dob-frequently-asked-questions">https://dps.ny.gov/dob-frequently-asked-questions</a>
  - Addressing questions re: environmental management, discharges, monitoring, dust mitigation, decommissioning and spent fuel management, emergency management, workforce and economic development, gas pipeline safety, cybersecurity, and more.
- NRC FAQs re: Indian Point Effluent Releases: <a href="https://www.nrc.gov/info-finder/reactors/ip3/faq.html">https://www.nrc.gov/info-finder/reactors/ip3/faq.html</a>
- NRC FAQs re: Spent Fuel Storage: <a href="https://www.nrc.gov/waste/spent-fuel-storage/faqs.html">https://www.nrc.gov/waste/spent-fuel-storage/faqs.html</a>
- EPA Fact Sheet re: Tritium: https://semspub.epa.gov/work/HQ/175261.pdf



#### **Additional Resources**

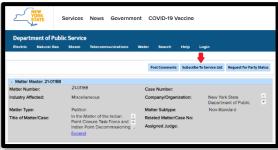
- NRC Effluent Reports: <a href="https://www.nrc.gov/reactors/operating/ops-experience/tritium/plant-specific-reports/ip2-3.html">https://www.nrc.gov/reactors/operating/ops-experience/tritium/plant-specific-reports/ip2-3.html</a>
- NYS DOH Environmental Surveillance Data: <a href="https://health.data.ny.gov/Health/Environmental-Radiation-Surveillance-Indian-Point-/ms7x-sfpf">https://health.data.ny.gov/Health/Environmental-Radiation-Surveillance-Indian-Point-/ms7x-sfpf</a>
- Poughkeepsie Drinking Water Quality Reports: https://cityofpoughkeepsie.com/370/Water-Quality
- NRC Cancer Risk Analysis: <a href="https://www.nrc.gov/reading-rm/doc-collections/fact-sheets/bg-analys-cancer-risk-study.html">https://www.nrc.gov/reading-rm/doc-collections/fact-sheets/bg-analys-cancer-risk-study.html</a>



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Mention matter #21-01188 "Indian Point Closure Task Force / Decommissioning Oversight Board"

Mail: Hon. Michelle Phillips, Secretary

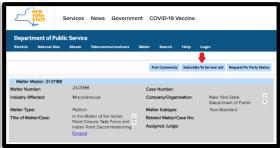
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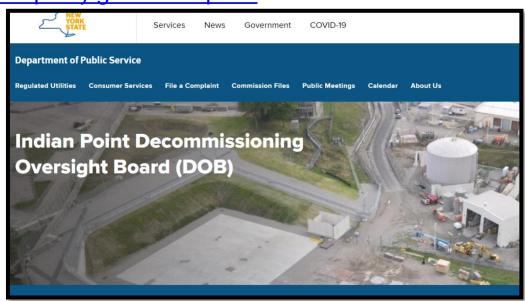
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#### Visit the DOB Website

#### http://www.dps.ny.gov/indianpoint

- Decommissioning Updates
- Schedule of Meetings
- Meeting Materials
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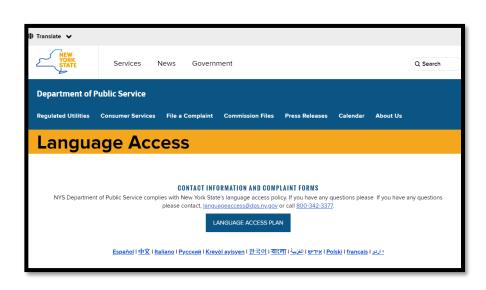




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# Next Meeting Sept. 21, 2023



# Adjourned

