



# Department of Public Service

Three Empire State Plaza, Albany, NY 12223-1350  
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## Public Service Commission

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September 22, 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, responses to July 2023 Indian Point Decommissioning Oversight Board public forum questions. Should you have any questions regarding this filing, please contact me. Thank you.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "Tom Kaczmarek".

Tom Kaczmarek  
Executive Director  
Indian Point Closure Task Force  
Indian Point Decommissioning Oversight Board

**July 31, 2023 Public Forum  
Indian Point Decommissioning Oversight Board  
Public Questions**

The source of the responses and the data contained herein should be assumed to be New York State unless otherwise noted.

## Administrative

1. **This opportunity for public engagement on the life of the Hudson River was only known to a small fraction of the public. Why has the PSC and the DOB never informed the public more meaningfully and widely through press releases and public postings on radio, internet, cable and newspapers and in schools, libraries and post offices so that the public can understand this state partnership with Holtec and how it will affect us? This is especially important for NY state disadvantaged communities with existing unremediated and unaddressed water pollution burdens.**

- DOB meetings are publicly noticed, press releases are issued, meeting information is available on the DOB website ([www.dps.ny.gov/indianpoint](http://www.dps.ny.gov/indianpoint)). In addition, upcoming meetings are announced at the end of each DOB meeting, as well as ways to sign up to receive all notifications about the DOB.

It is also important to clarify the nature of HDI's relationship with NYS and local communities. The agreement that was signed between HDI, NYS agencies, the NY Attorney General, Buchanan, Cortlandt, Westchester, Riverkeeper, and others in 2021 was to establish enforceable public interest conditions that were incorporated into the Public Service Commission's approval of the sale of Indian Point from Entergy to HDI. HDI is a private entity that is responsible for the decommissioning of Indian Point subject to federal, state, and local laws and regulations.

The contention and assertion that PSC, DPS, or DOB "never" provide public notice of proceedings lacks an objective factual basis.

2. **The public understands food was provided to DOB members before the June 15, 2023 meeting. Please describe the nature of the event, how it was paid for, ethical protocols adhered to, and whether other parties (e.g., Holtec employees) were offered to participate.**
  - Mayor Knickerbocker provided a sandwich for DOB members, including those travelling and arriving from long distance. NYS members of the DOB who arrived early for the meeting and had sandwiches personally reimbursed Mayor Knickerbocker for their respective meals, consistent with NYS ethics rules.
3. **Does allowing Holtec employees early access to the meeting room to hinder public participation violate Open Meetings Laws.**
  - The DOB defers to our meeting hosts to control their premises for meetings. No members of the public, including workers employed at Indian Point, have been given special access to meeting rooms. All meetings have been held in public spaces, open to all on a first-come, first-served basis. We understand there has been concern about the availability of seating in

recent meetings, and have requested that our meeting hosts tighten building entrance oversight to ensure fair and equal access.

4. **Can Dr. Lauro send a proxy to attend these meetings so the school district has representation.**
  - DOB participants are entitled to ask a proxy to represent them and the organization they represent in their absence on occasion; the proxy must be from the same entity as the DOB member and familiar with meeting protocols and agenda.
5. **Why doesn't the City of Peekskill, an EJ community, have a seat on the DOB?**
  - The DOB membership was initially established to closely align with the statutorily-prescribed membership of the IP Closure Task Force.
6. **Will there be any forums or materials provided in Spanish?**
  - Per language access law, all materials are able to be transcribed in one of more than 20 languages upon request. Additional language access resources are available at <https://dps.ny.gov/language-access> or by calling 800-342-3377.
7. **To date, there is no medical expert with public health and radiological/toxic chemical expertise seated on the Decommissioning Oversight Board, yet the public health impacts of decommissioning are the single most important priority of this process. When will a qualified medical expert be appointed to the Decommissioning Oversight Board to professionally evaluate and communicate the potential public health effects of the various radioactive wastewater management options as well as other decommissioning impacts? If not, explain why not?**
  - This question was previously answered and is available at <https://dps.ny.gov/dob-frequently-asked-questions>. Expert staff of the New York State Department of Health (DOH) have served as active members of the DOB's Monitoring Working Group since the group's inception in summer 2021. The DOB staff members' credentials and experience include multiple graduate degrees, including master's in public health, Board certification in Health Physics, expertise in radiation biology and radiation effects, and over 30 years' experience in radiation protection. DOH is also supporting the CAMP RFP process to procure community air monitoring for the school district and communities surrounding Indian Point, will participate in the contractor selection process to ensure the selected vendor meets the requisite criteria, and will participate in the open meeting and public forum currently being coordinated with the Buchanan-Verplanck Elementary School PTA.
8. **What public educational forums and outreach will be provided by the EPA Region 2, NYS DOH, NYS DEC and other state agencies to educate the public regarding all testing and findings?**
  - The DOB continues to serve as a forum to provide public education and outreach on topics related to the decommissioning of Indian Point, including related to the topic of water discharges. For example, the EPA, DEC, and DOH are all actively participating in this July forum, and have participated in several other public meetings.
9. **Will we get an update on emergency planning, including "training" conducted by Enbridge?**
  - More information has been provided at recent DOB meetings and is also available at <https://dps.ny.gov/dob-frequently-asked-questions>.
10. **How does New York State's oversight of decommissioning compare to other states?**
  - No state had done more than New York to advocate and work towards plant closure, site restoration, financial security, and community safety around Indian Point – and indeed other NY facilities. By way of example:

- New York State's 10 millirem cleanup standard is the most protective metric of its kind and it is enforceable via a PSC order.
- Remediation of the Indian Point site within 15 years is 25% of the NRC allowed 60 years.
- Transfer of spent nuclear fuel to dry cask by the end of 2023 (2 years after reactor cessation), will reduce the risk to the host Village and other communities.
- Financial assurances to protect the Decommissioning Trust Fund throughout decommissioning.
- The appointment of a full-time state inspector who works on-site to monitor Holtec activities.

## Water Discharges

### 11. **Has New York State and/or Westchester and Rockland Counties consented to the disposal of nuclear waste effluent in the Hudson River?**

- On August 18, 2023, Governor Kathy Hochul signed legislation (S.6893/A.7208) into law, restricting discharges into the Hudson River in connection with nuclear power plant decommissioning. More information may be found at <https://www.governor.ny.gov/news/governor-hochul-signs-bill-protect-hudson-river-indian-point-decommissioning-wastewater>.

### 12. **Is New York able to take its own samples of the effluent for testing? Or, does Holtec provide New York state with the samples? What are the specific description of the areas from which the radioactive effluent is being taken?**

Currently, pursuant to NRC requirements, HDI collects water samples at Roseton and at the discharge canal. HDI sends the samples to a lab on a weekly basis. Monthly composites of these samples also get sent to NYS DOH for analysis. Water samples are also collected weekly by Westchester County DOH staff taken down river at Verplanck at the shoreline at the King Marina – 270 6<sup>th</sup> Street, Verplanck.

As described in the Split Sampling Overview document available on the DOB's community monitoring page (<https://dps.ny.gov/indian-point-community-monitoring>), the additional samples at Indian Point that are contemplated in the State's MOU with HDI are in a Radiologically Controlled Area and are considered Radioactive Material. Samples would be handled by qualified Site personnel. Sample collection would be witnessed by New York State personnel. The samples would be split and shipped to the laboratories as specified by Holtec and New York State. New York state would use Wadsworth labs and a NYSDEC contract lab.

Two samples would be taken from each source listed below:

- Unit 2 and Unit 3 Spent Fuel Pools (SFPs)
- Unit 2 and Unit 3 Reactor Cavities/Refueling Water Storage Tanks (RWSTs)

and

Samples would be taken from each of the following locations at a variety of intervals:

- The Site's Discharge Canal and

- The Roseton control location

13. **Synergistic catalysis is a field of chemical study concerned with the ability of synthetic chemicals to spontaneously form new chemical bonds when exposed to sunlight, water, air and radionuclides or other chemical catalysts. The potential health risks of resulting compounds are unknown and pose a public health threat as mixtures of chemicals, interaction of chemicals with radioactive materials and reaction of chemicals with other contaminants cause unknown synergistic reactions. Please describe how New York State agencies factor this synergistic process into the analyses of radioactive contaminants and copollutants, pre and post treatment as well as for pollution and monitoring in the Hudson River and various wastewater disposal options?**

- According to NYS DOH experts, chemically, radioisotopes behave in exactly the same way as their stable counterparts. For instance, tritiated water moves through the body and the environment exactly the same way as regular water. Chemicals will not interact with radioactive materials any differently than they would with the same material that is not radioactive. There is no unusual interaction or synergy.

Water Quality Standards are developed to minimize health and environmental impacts and are written to protect aquatic life, human health, wildlife and aesthetics.

14. **What is the status of SPDES permit? When will it be issued?**

- As discussed during recent DOB meetings, the Indian Point State Pollutant Discharge Elimination System (SPDES) permit expired on April 30, 2022. Given Holtec submitted a timely renewal application, the facility continues to have coverage under the existing SPDES permit pursuant to the State Administrative Procedure Law.

NYSDEC is currently undertaking a review of the permit application to determine if a permit modification is necessary. Once the NYSDEC review is complete, a Draft SPDES Permit will be provided for public review and comment for a minimum of 30 days in accordance with NYSDEC regulations.

15. **What are the Maximum Contaminant Levels (MCL)? How do federal drinking water limits compare to NYS limits? What are the MCLs for other U.S. States?**

EPA has established an MCL of 4 millirems per year for radioactivity<sup>[1]</sup>. The average concentration of tritium that is assumed to yield 4 millirems per year is 20,000 picoCuries per year (pCi/L). The MCL is based on lifetime exposure criteria, which assume 70 years of continued exposure to contaminants in drinking water.

In the case of radionuclides, New York State has adopted drinking water standards that are identical to EPA's for all of the radiation materials, including beta particle and photon radioactivity from manmade radionuclides (4 millirems per year).

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<sup>[1]</sup> The EPA established a dose-based MCL of 4 mrem/yr is for beta particle and photon (gamma) radioactivity. The MCL is based on lifetime exposure criteria, which assumes 70 years of an individual's continued exposure to contaminants in drinking water, at a consumption rate 2 liters of fluid every day for a year (i.e., 730 liters per year) at the MCL of 20,000pCi/L.

Although EPA does not maintain a compendium of state drinking water standards, it is aware that New York, New Jersey, and California have tritium MCLs of 20,000 picoCuries (pCi/L).

**16. What is the EPA's maximum contaminant level goal (MCLG) for tritium?**

MCLs differ from MCLGs. MCLs are the enforceable standard. MCLGs are not legally enforceable or binding. EPA does not enforce or compel MCLGs. Under the Radionuclides Rule, the maximum contaminant level goal (MCLG) for all radionuclides is zero.

**17. Are there cumulative impacts from exposure to, or ingestion of, tritium? Does EPA consider cumulative impacts of tritium or other pollution sources in setting standards?**

The overall MCL for beta particle and photon radioactivity is an annual dose equivalent of 4 mrem/year. The Radionuclides Rule clarifies that the exposure level of tritium assumed to produce this maximum annual dose equivalent is 20,000 pCi/L. The tritium dose equivalent of 20,000 pCi/L is specific to tritium ingestion (and other beta particle radiation) through drinking water and does not account for potential exposures to pollution from other sources (e.g.,: inhalation). The MCL is based on lifetime exposure criteria, which assume 70 years of continued exposure to contaminants in drinking water -- at a consumption rate 2 liters of fluid every day (i.e., 730 liters per year) at the MCL of 20,000pCi/L.

In general, EPA's National Primary Drinking Water Regulations address a single stand-alone contaminant, or a group of closely related contaminants (e.g., radionuclides, bacteriological contaminants, disinfection byproducts, lead and copper, PFAS). EPA's rule making process takes into consideration the potential for the contaminant(s) of concern to cause a public health risk. This evaluation does not consider the health impacts that may occur when other, potentially unrelated contaminants are also present. For example, the health evaluation for radionuclides would not have considered cumulative health impacts from exposure to tritium and another contaminant such as lead, emerging contaminants or PCBs.

**18. Are impacts to flora and fauna considered in determining safe levels?**

EPA does consider potential impacts to flora or fauna as part of the National Pollutant Discharge Elimination System (NPDES) Program established under the Clean Water Act. The NPDES Program addresses water pollution by regulating point sources that discharge pollutants to waters of the United States. While Safe Water Drinking Act (SDWA) regulations help address contaminants that are found to occur in drinking water, the NPDES program helps prevent these contaminants from entering water sources in the first place.

When determining whether a particular contaminant should be regulated, the Safe Drinking Water Act (SDWA) requires EPA to consider the following criteria:

- Whether the contaminant may have adverse public health effects
- Whether the contaminant is known to occur, or there is a high chance the contaminant will occur in public water systems often enough and at levels of public health concern

- Whether there is a meaningful opportunity for health risk reduction through regulation

Based on these considerations, EPA sets enforceable limits, or maximum contaminant levels (MCLs) for drinking water contaminants that are found to occur, and which pose a threat to human health.

19. **What alternatives for storage and disposal of tritium exist?**

- This topic has been discussed on many occasions. Alternatives for storage and disposal of tritiated water were presented by the DOB's independent technical expert Dave Lochbaum on [February 2, 2023](#), a peer-reviewed assessment was presented on [June 15, 2023](#), and the topic has been further discussed at numerous additional DOB meetings. Additional discussion of alternatives may be found on [Mr. Lochbaum's research and resources page](#) as well as on the [DOB's FAQs page](#).

With Governor Hochul's signing of S.6893/A.7208 into law, restricting discharges into the Hudson River in connection with nuclear power plant decommissioning, the DOB will continue to engage with the licensee on alternate options.

20. **What public need exists for prompt, controlled, and monitored releases of the treated and diluted radioactive effluent into the Hudson?**

- In 2021, an agreement was reached between Riverkeeper, Westchester County, Public Utility Law Project, the Town of Cortlandt, the Hendrick Hudson School District, the Village of Buchanan, the New York State Department of Public Service, the New York State Department of Environmental Conservation, the Department of Homeland Security and Emergency Services, NYSEDA, the New York State Attorney General, Entergy, and Holtec to approve the sale of Indian Point from Entergy to Holtec. This agreement was guided by three key public interest principles: ensuring that decommissioning is *safe, prompt, and thorough*. Until recently, discharge of treated water to the Hudson River subject to NRC regulatory limits was allowable. Such controlled releases had occurred for 60 years, and it was therefore not surprising that Holtec was pursuing this option. It was also reasonable for the public, elected officials and the DOB to consider the implications of such a plan. In part based on this public exchange of information at DOB meetings, the state Legislature passed S.6893/A.7208 (Harckham/Levenberg) and Governor Hochul signed it into law. This new state law prohibits discharges into the Hudson River in connection with nuclear power plant decommissioning. The DOB remains committed to the key public interest principles of *safe, prompt, and thorough* decommissioning. The DOB will continue to engage with the licensee on alternate options to handle the wastewater that remains onsite aligning these public interest principles. Through community engagement, the Closure Task Force understood that the Village of Buchanan is interested in promptly restoring the site for other potential uses.

## Dry Cask Storage and Decommissioning Cost

21. **Has New York State consented to the interim or long-term storage of nuclear waste at the Indian Point site?**
- The Department of Public Service has reminded the U.S. Department of Energy (DOE) about the federal government's obligation to remove the radioactive spent nuclear fuel from the Indian Point site. See [March 26, 2021 letter](#) from former DPS CEO John Howard to DOE Secretary Jennifer Granholm. In 2020, State agencies opposed Entergy/Holtec's waiver request to use money in trust for Indian Point decommissioning for spent fuel management purposes.
22. **How much has Holtec spent to date on decommissioning?**
- Per requirements established in 10 CFR 50.82, Holtec Decommissioning International is required to submit reports to the U.S. Nuclear Regulatory Commission by March 31 each year on the status of decommissioning funding, the financial assurance report, and the status of funding for managing irradiated fuel at Indian Point for the previous year. 2021 and 2022 annual reports are currently available; links will be posted at <https://dps.ny.gov/indian-point-trust-fund-balance-reports> as the reports are made publicly available.

## Biological and Health Studies

23. **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?**
- Historical data from surveillance of the Hudson River is available at <https://health.data.ny.gov/Health/Environmental-Radiation-Surveillance-Indian-Point-/ms7x-sfpf>. DOH continues to sample the river and future data will be posted in the same location. Drinking water quality reports are available from the water districts. For instance, data for the City and town of Poughkeepsie – the closest municipal water system to Indian Point that sources its water from the Hudson, can be found at <https://cityofpoughkeepsie.com/370/Water-Quality>.

On August 18, 2023, Governor Kathy Hochul signed legislation (S.6893/A.7208) into law, restricting discharges into the Hudson River in connection with nuclear power plant decommissioning. More information may be found at <https://www.governor.ny.gov/news/governor-hochul-signs-bill-protect-hudson-river-indian-point-decommissioning-wastewater>.



24. **The Hudson River, a tidal estuary and part of the National Heritage Area designated by Congress, has been designated a federal Superfund site due to PCB contamination. A comprehensive assessment with special oversight and monitoring by the Environmental Protection Agency (EPA) was undertaken to determine the extent of the chemical pollution in the River and mitigation steps. Please describe independent expert analyses that have been conducted to evaluate impact of past discharges from Indian Point into the Hudson River? Who conducted analyses? What independent laboratories were involved? What steps are being considered and taken to protect this Superfund site from further contamination?**

- Independent technical expert Dave Lochbaum assessed the historical data and impact from discharges to waterways: <https://dps.ny.gov/system/files/documents/2023/06/tritium-releases-to-environment-march-2023.pdf>. In addition, extensive monitoring and surveillance data, available on the DOB website at <https://dps.ny.gov/indian-point-community-monitoring>, has not identified harmful levels of radionuclides or other regulated substances emanating from controlled discharges. Nonetheless, New York State, in addition to its ongoing surveillance in the Hudson River, entered into an agreement with Holtec outlining a protocol for sampling radiological and non-radiological effluent from the Indian Point facility in anticipation of the potential release of treated wastewater to the Hudson. An overview of the sampling protocol may be found [here](#).

On August 18, 2023, Governor Kathy Hochul signed legislation (S.6893/A.7208) into law, prohibiting discharges into the Hudson River in connection with nuclear power plant decommissioning. More information may be found at <https://www.governor.ny.gov/news/governor-hochul-signs-bill-protect-hudson-river-indian-point-decommissioning-wastewater>.

25. **What independent expert analyses have been or will be conducted that evaluates the variety of factors unique to the Hudson River e.g. how surface water travels, wind, seasons, temporal variabilities and other critical factors?**

- At recent meetings, the DOB's independent technical expert Dave Lochbaum provided the DOB with a peer-reviewed relative risk analysis of possible methods to handle tritiated water. His analysis included an assessment of historical monitoring and surveillance data. Dave Lochbaum's peer-reviewed relative risk analysis may be found at: <https://dps.ny.gov/event/indian-point-decommissioning-oversight-board-meeting-june-2023>.

## Energy

26. **What are the plans to replace the energy that was being produced at Indian Point? Is this being taken as an opportunity to add more renewable energy sources into our power mix? Will the ratio of carbon sources (oil, gas, coal) to renewables increase or decrease as a result of the decommissioning process?**

- The planning for a future without Indian Point began well before the actual closure was announced. In January of 2012, the Energy Highway initiative called for strengthening our energy infrastructure and making plans for the replacement of older power plants, such as

Indian Point. In October of that year, the Energy Highway Blueprint was issued following through on the initiative, and the Public Service Commission responded in November by commencing the Indian Point Contingency Planning Proceeding to prepare for the possible closure of the plant as early as 2015, the end of Unit 3's initial license term. As a result of this public review process, the Commission identified transmission upgrades, energy efficiency measures and distributed resources to mitigate reliability needs. These measures resulted in 600MW of transmission upgrades and 130MW of distributed energy resources and energy efficiency improvements, dramatically lessening replacement power needs. Energy planning to achieve the State's climate policy targets have been ongoing and have resulted in significant additional transmission upgrades, including an expansion of the grid to move an additional 1,000 MW from upstate to downstate, and a 1,250 MW transmission line under construction that will deliver clean power from Quebec to New York City which is scheduled to commence service in 2026.

## Emergency Preparedness / Pipeline

**27. What is the plan if a situation occurs which would require evacuation or other emergency response?**

- At the September 22, 2022 meeting of the DOB, the New York State Department of Homeland Security and Emergency Services (DHSES), Department of Public Service (DPS), Department of Environmental Conservation (DEC), Department of Health (DOH), Westchester County Emergency Services, and Verplanck Fire District jointly presented on Emergency Management procedures, trainings, drills, and public communications related to emergency events at Indian Point, including the highly unlikely triggering of evacuation orders. The emergency plan for Indian Point is posted on Holtec's Decommissioning website. The website includes Emergency Guides for Westchester, Rockland, Orange, and Putnam counties with specific evacuation information tailored to each community. These guides also include guidance, websites, and phone numbers with additional information and planning preparations for the evacuation of facilities such as hospitals, nursing homes and correctional facilities, and people with special needs, such as mobility impairment, visual or hearing impairment, or need specialized transportation or equipment. In addition, the DOB website includes links to Indian Point Emergency Plans and Guides. Note, however, that the links and information provided are not owned or maintained by the Indian Point Decommissioning Oversight Board or by New York State. For the most up-to-date information, always refer directly to the appropriate entity.

More information on the September 2022 meeting may be found here:

<https://dps.ny.gov/event/indian-point-decommissioning-oversight-board-meeting-september-2022>. Additional FAQs related to emergency preparedness may be found here: <https://dps.ny.gov/dob-frequently-asked-questions>.

**28. Given the two gas pipelines that traverse Indian Point, and the Algonquin 42-inch high pressure pipeline that runs right next to the property line of Indian Point, can the NRC attest that Holtec workers and first responders in the EPZ been trained with a program to respond to**

**a gas pipeline rupture, a training program such as the TRAINING MODULE from the Pipeline Association for Public Awareness? Would the NRC provide dates and training program descriptions? If not, then why not?**

- This question was previously responded to and may be found in the FAQs section of the DOB website: <https://dps.ny.gov/dob-frequently-asked-questions>

29. **In case of a co-incident of a gas pipeline rupture and radiological event, how does the NRC and Holtec conform to federal regulations that the public is well-informed in emergency events and well-protected?**

- This question was previously responded to and may be found in the FAQs section of the DOB website: <https://dps.ny.gov/dob-frequently-asked-questions>

30. **When and how did Holtec fulfill the requirements in 10 CFR 50 Appendix E Section IV.D.2 and provide information on radioactive and protective actions to residents in 2022 and 2021 in the EPZ Zone on decommissioning? How has the NRC fulfilled this 10 CFR 50 Appendix E Section IV.D.2 for instance in an environmental justice community like Peekskill where 46% of the residents are of Hispanic heritage?**

The current Indian Point Emergency Plan states that New York State and the counties of Westchester, Orange, Rockland and Putnam, are responsible for the periodic dissemination of educational information to the public within the 10-mile Emergency Planning Zone (EPZ). County-specific emergency planning educational booklets are provided to the public. The booklets contain public safety information about emergencies at Indian Point Energy Center and what the public may be asked to do in an emergency. The booklets are mailed to each household and business within the 10-mile EPZ.

The following link provides English and Spanish guides available for the public by Westchester County, <https://emergencyservices.westchestergov.com/indian-point/emergency-planning#guide>

31. **Has Holtec ever run real-time drills of a radiological accident, such as with the Radiological Assistance Program in Brookhaven, Long Island?**

- The Radiological Assistance Program (RAP) Team would be called in to assist with the state response to an emergency at Indian Point, and thus trains and drills with the State, not the licensee. Activation of the team is practiced during every nuclear power plant exercise. The RAP team has provided training to the NYS responders and participated in drills in the past. The last time NYS participated in an exercise with RAP was November 2022 at the New England Radiological Health Conference

32. **Was there ever a simulation of a real-time emergency with a co-incident of the pipeline and radiological release?**

- In September 2022 and February 2023, Enbridge held tabletop exercises to drill a pipeline incident in the vicinity of Indian Point. Tabletop exercise participants included Enbridge, Holtec, and local emergency responders.

The exercises drilled a pipeline incident in the area of the nuclear power plant. However, analyses such as the Oak Ridge National Laboratories assessment, states that a pipeline

incident is unlikely to affect components in safety-related structures, systems, and components and items in radiological storage, therefore drills have not simulated a pipeline incident resulting in a radiological release.

33. **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?**

- Responses to sub-questions:

**Have ROWs been marked at the Indian Point site as stipulated in pipeline regulations?**

Response: In compliance with federal pipeline safety regulations and Enbridge procedures, Enbridge has pipeline markers installed along the right-of-way at the Indian Point site. To further enhance visibility and awareness of the pipelines, Enbridge has agreed to install additional pipeline markers between the current markers within the site. Enbridge completed installation of the additional markers in March 2023.

**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?**

According to Enbridge: The Indian Point area has been assessed for land movement and flooding hazards, and no geohazards or pipe movement features affecting girth welds or pipeline integrity were identified. No sink holes or other subsidence features have been identified through ground-based or aerial LiDAR-based inspections within the Enbridge right-of-way adjacent of the Indian Point facility.

**Describe follow up for periodic reassessments of potential subsidence problems.**

According to Enbridge: The Indian Point site is periodically inspected and assessed to evaluate changes in ground conditions as part of Enbridge's geohazard management program. Inspections include in-line tool inspections (ILI), LiDAR change detection, InSAR change detection, fixed wing aerial right-of-way patrols, and area operations foot patrols as necessary. When potential changes are identified, the site is inspected by geohazard SME's or specialists to assess if any additional action is necessary. At Woodlands Legacy Park, anchor points that were installed to monitor for indications of settlement are surveyed by each month.

**What is the plan for extreme flooding events and sea level rise?**

According to Enbridge: The Algonquin Gas Transmission pipeline right-of-way located adjacent to the site is at least 40 feet higher in elevation than the high-water line of the Hudson River. After Hurricane Sandy, Enbridge visually inspected the area for exposed pipe, washouts, or other concerns. There were no impacts to the Algonquin pipelines in the vicinity of the Hudson River from Hurricane Sandy in 2012.

The Hudson River crossing was also assessed for hydrotechnical geohazard threats due to scouring and channel migration associated with severe weather events consistent with PHMSA Advisory Bulletin Pipeline Safety: Potential for Damage to Pipeline Facilities Caused by Flooding, River Scour, and River Channel Migration, 84 Federal Register 14715. The crossing is periodically inspected and assessed to evaluate changes in the river conditions as part of Enbridge's geohazard management program. Enbridge maintains records of these inspections, which are subject to inspection by PHMSA and the New York Department of Public Service.

34. **Emergency Planning and Preparedness and the lack thereof 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?**

- This question was previously responded to and may be found in the FAQs section of the DOB website: <https://dps.ny.gov/dob-frequently-asked-questions>