Responses to Public Comments and Questions October 27, 2021 DOB Meeting

Administrative	Decommissioning <u>& Spent Fuel</u> Management	Monitoring	Emergency Response	<u>Gas Pipeline</u> <u>Safety</u>	<u>Other</u>
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The source of the responses and the data contained therein should be assumed to be New York State unless otherwise noted.

ADMINISTRATIVE

1. How will answers to questions asked in the chat be disseminated?

Responses to questions raised in the chat will be posted under <u>Matter # 21-01188</u> on the Department of Public Service website. Interested parties are encouraged to sign up for email updates by clicking on "Subscribe To Service List".

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2. Do contributions to a political campaign by Holtec or Enbridge (or businesses that work for them) count as a conflict of interest?

As adopted by the Decommissioning Oversight Board, the Board's bylaws prohibit a Board Member from accepting gifts or anything of value where, among other things, it could reasonably be inferred that the gift could be intended to influence the member in the performance of the member's Board duties. The bylaws also prohibit any Board Member from holding any relationship to, employment relationship with, or financial interest in any company with an ownership or other financial interest in any retired or operating nuclear plant in the state, including related or parent companies, subsidiaries, contractors, agents, or shareholders. DOB members are required to submit annual certifications of compliance attesting to compliance with this provision. In the event any such member believes, or has a question with respect to whether, a Conflict of Interest exists, the member has a duty to disclose the potential

Conflict of Interest to the legal counsel to the Board. The Board's legal counsel will work with the member to determine whether a Conflict of Interest does in fact exist, and if so, to mitigate or eliminate (likely through a recusal framework) the Conflict of Interest.

3. Is the DOB planning to solicit input from an independent pipeline safety expert? Would the DOB invite Rick Kuprewicz to speak?

The DOB regularly enlists New York State's pipeline safety experts from Department of Public Service to engage with the DOB on matters pertinent to the safe decommissioning of Indian Point. Nonetheless, the DOB values input from independent, impartial, and reputable subject matter experts. The DOB is actively engaging with Mr. Kuprewicz to present at a future DOB meeting.

4. Would the DOB invite an environmental justice and community representative to sit on the DOB?

Per its bylaws, the DOB includes elected representatives of the communities surrounding Indian Point from nearly every level of local and state government, in addition to a representative of the environmental community, local labor representatives, an independent nuclear safety expert, and the Hendrick Hudson School District superintendent representing many families in the community.

The DOB is committed to engaging with all members of the Indian Point host communities, and welcomes invitations for relevant DOB representatives to meet with community organizations outside of regular DOB meetings. Information or issues that result from those community meetings can be brought to the full DOB for discussion.

5. Will you announce the next DOB meeting date at each prior meeting?

The DOB will seek to establish a calendar of scheduled DOB meetings for each upcoming year. While dates are subject to change, the DOB is scheduled to hold public meetings from 6pm-9pm on the following dates in 2022:

- a. Thursday, March 17, 2022
- b. Thursday, May 19, 2022
- c. Wednesday, July 27, 2022
- d. Thursday, September 22, 2022
- e. Wednesday, December 7, 2022

At each meeting, the date for the next meeting will be publicly announced. We will also issue public notices, press releases, and social media posts in advance of each meeting.

6. Will you set up a DOB webpage, including Holtec's planned activities for the week and other useful information? Will you set up a dashboard?

After actively exploring improvements to the web presence of the DOB and seeking new ways to present the public with information on the progress of decommissioning, staff is about to launch a new Indian Point Decommissioning Oversight Board website at <u>www.dps.ny.gov/indianpoint</u>.

This website will provide information on upcoming meetings, reports, correspondence, and other key information related to the work of the Decommissioning Oversight Board.



The new DOB website will complement the existing DOB dedicated webpage on the Department of Public Service's <u>Document and Matter Management (DMM) system</u>. Note that one does not need to know the matter number to find the webpage. It is available on the <u>Department of</u> <u>Public Service's landing page</u> under "Electric Topics" as a link entitled "Indian Point Closure Task Force/Indian Point Decommissioning Oversight Board". Interested parties are encouraged to sign up for updates by clicking on "Subscribe To Service List".

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7. Will the DOB designate an ombudsman to handle concerns raised by the public to help direct their questions to the appropriate parties?

The public is encouraged to raise concerns by submitting a comment through the DOB's dedicated <u>webpage</u> or by making a public statement at DOB meetings. New York State staff review each question and concern submitted and work with appropriate parties for response. In matters of potential wrongdoing, the public is encouraged to use the tip line or contact the appropriate agencies listed below.

8. Will DOB set up a separate tip line for the public?

The <u>whistleblower line</u> set up by the DOB may be used by the public to alert potential wrongdoing.

Members of the public can raise concerns to the DOB in the following ways:

- 1. Through the DPS website by clicking <u>here</u>.
- 2. By E-mail: <u>IP.Tips@dps.ny.gov</u>
- 3. By Calling the Tip Line: 518-486-1487
- 4. Through US Mail:

New York State Department of Public Service Office of Investigations and Enforcement 3 Empire State Plaza Albany, NY 12223

The public can also contact the following key regulators to file concern:

New York State Department of Public Service Phone: 800-342-3377 | Online: click <u>here</u>

- Federal Nuclear Regulatory Commission Phone: 800-695-7403 | Online: click <u>here</u>
- Federal Pipeline and Hazardous Materials Safety Administration Phone: 800-424-8802 | Online: click <u>here</u>

DECOMMISSIONING AND SPENT FUEL MANAGEMENT

Decommissioning

9. Everything must go according to plan to avoid major consequences.

Regulations, standards, agreements, oversight, redundancies, and the plant shutting down places all contribute to reduced risk profile at the site compared to when the plant was operational. As the spent fuel is removed from the cooling pools and transferred to dry cask (ISFSI) storage, risk of radiological releases from the site will be further reduced One of the benefits provided by the Decommissioning Oversight Board is that decommissioning activities and government agency oversight activities can be discussed in regular public forums, and issues in need of further attention can be identified.

10. Please make DPS guidance document issued in June 2021 to Holtec available to the public.

To ensure clear and timely communication between Holtec and state regulators, DPS provided Holtec with a guidance document in June 2021 detailing the company's emergency management and pipeline safety notification obligations. Holtec has acknowledged those obligations and complied with them as of March 2022. A redacted version of this document has been posted on the DPS website under matter #21-01188.

11. How do we access the citizen participation plan and scoping work plan?

The New York State Department of Environmental Conservation (DEC) will create an online depository for all documents required under the Order on Consent and Administrative Settlement re: Indian Point. Once that site has been created, we will provide a link through a variety of public forums, including the Indian Point Decommissioning Oversight Board.

12. Will Holtec clean up contaminated soil? What about contamination known to be leaking into groundwater? How often will water be analyzed via Liquid Scintillation Analysis and Nal/HPGe detection for common fission products?

Holtec is required to meet New York State environmental and health standards and must submit a site characterization scoping plan outlining the overall program of remedial investigation of the site to the New York State DEC and Department of Health (DOH). DEC and DOH are currently reviewing the site characterization scoping plan. Holtec further indicated it intends to submit its first Remedial Investigation Work Plan that provides for the investigation of the nature and extent of contamination at the site in 2022.

13. In the event of detection of fission products such as Sr-90, Cs-137, and Tc-99, what detection limit thresholds will cause the NRC, New York State, and surrounding areas be notified of contaminants?

Under federal regulations, Holtec is required to report certain information concerning radiological materials to the NRC. According to Holtec, the Radiological Effluent Monitoring Program (REMP) remains in place with the same requirements as it did during prior operations. The REMP limits from the Indian Point Offsite Dose Calculation Manual (ODCM) would prompt reporting to the NRC. This requirement is called out in both the ODCM and the site reporting procedures. The reporting requirements remain unchanged from when the reactors at Indian Point were in operation.

RADIONUCLIDE ANALYSIS	WATER (pCi/L)	AIRBORNE PARTICULATE OR GASES (pCi/m ³)	FISH (pCi/kg, wet)	MILK (pCi/L)	FOOD PRODUCT S (pCi/kg, wet)
H-3	20,000 *				
Mn-54	1,000		30,000		
Fe-59	400		10,000		
Co-58	1,000		30,000		
Co-60	300		10,000		
Ni-63 ***	300		1,000		
Zn-65	300		20,000		
Sr-90 ***	8*		40		
Zr-95	400				
Nb-95	400				
I-131	2 *	0.9		3	100
Cs-134	30	10	1,000	60	1,000
Cs-137	50	20	2,000	70	2,000
Ba-140	200			300	
La-140	200			300	

Reporting Levels for Radioactivity in Environmental Samples**

Values provided are for drinking water pathways. If no drinking water pathway exists, higher values are allowed, as follows:

I-131

30 000 oCi/I (This is a 40 CFR 141 value) H-3

These reporting levels are associated only with the REMP requirements. The Radiological Ground Water Monitoring Program may involve unique reporting level criteria, independent of the REMP Sr-90 and Ni-63 are included in this table due to their historical presence in ground water and possible migration to the environment

[Chart provided by Holtec]

New York State DOH measures the air and water near Indian Point and other locations (background) around New York to determine the normal levels of radioactivity and monitors the influence of human activities on these levels. The results of this monitoring program is posted at www.health.data.ny.gov. Records dating back to 2009 are currently available on this website, but older records may be obtained by contacting the Department of Health. 2019 and 2020 data are expected to be available by the 2nd quarter of 2022. Here is a direct link to the most recent data: https://health.data.ny.gov/Health/Environmental-Radiation-Surveillance-Indian-Point-/ms7x-sfpf

14. What decontamination protocols will be undergone if contamination occurs as a direct result of Holtec manipulation of radioactive materials? Are there plans to vent into the water column/Hudson River or atmosphere in the event of liquid or air contamination in closed environments within Indian Point facilities?

According to Holtec, the decontamination methods specified in the DECON Post-Shutdown Decommissioning Activities Report (PSDAR)(ML19354A698) remain unchanged and comply with federal regulations. Site processes and procedures would be utilized to implement decontamination practices if contamination was detected onsite. Decontaminations protocols remain unchanged from when the reactors at Indian Point were in operation.

15. What inspectors will be on site daily when any work is being done on Indian Point? Will that number decline over time? Please urge NRC to keep a resident inspector at Indian Point.

The DOB recognizes the potential benefit of having a resident inspector on site during the spent fuel transfer and decommissioning processes. Several members of the DOB have called on NRC to reinstate a resident inspector at Indian Point during these phases. In the meantime, Governor Kathy Hochul is prepared to act at the state level.

At the recommendation of Senator Harckham and Assemblywoman Galef, Governor Hochul called for the Department of Public Service (DPS) to hire a NYS Resident Inspector to monitor spent fuel management and decommissioning activities in the 2022-23 Executive Budget. This state resident inspector will provide more regular monitoring and oversight of decommissioning and spent fuel management activities and other operations on a day-to-day basis and will be asked to provide regular reports to the DOB. While the state does not have the same jurisdiction as the NRC, it can and will refer any matters that may be beyond the state's jurisdiction to relevant regulatory bodies.

Although the NRC does not require a resident inspector to be onsite during decommissioning, the NRC maintains Inspection Manual Chapter (IMC) 2561, which details the many inspection programs meant to hold decommissioning power reactor operators accountable as a site transitions from permanent reactor shutdown, through active decommissioning, all the way to final site survey and release. The NRC utilizes nine "core" inspections programs that focus on areas ranging from plant decommissioning status, staffing, spent fuel safety and handling, transportation of radioactive materials, fire and radiation protection and environmental monitoring. Additionally, the NRC may use any number of additional inspection documents¹ to further analyze aspects of a plant's decommissioning, such as emergency preparedness, security, safety assessment and quality assurance programs.

IMC 2561 provides the estimated inspection hours supporting each core inspection program but, depending on the certain decommissioning activities being performed, additional inspection hours may be necessary to be completed. For example, during the actively decommissioning phase, when spent fuel is still in the fuel pool, inspection hours related to the plant's fire protection program are double, and can even quadruple, as compared to the hours needed when the plant is offloading fuel from the reactor vessel. Inspection hours required for each program are expected to change over the course of decommissioning, depending on the plant status and activities being performed and the inspection hours listed in IMC 2561 are for single unit reactors; multi-unit decommissioning sites such as Indian Point require 1.5 times the listed hours. Inspection hours include both on- and offsite review, and can entail unannounced site visits, interviewing site personnel, and reviewing procedures and records. Overall, NRC personnel are expected to be at a facility 2 to 3 weeks of the month during active decommissioning. During storage operations, inspectors would be present several times a year. Finally, additional inspections and site visits may be warranted when a significant amount of

¹ NRC Inspection Manual Chapter 2561; *Decommissioning Power Reactor Inspection Program*. <u>Appendix B: Periodic</u> and Discretionary Inspection Documents for Decommissioning Power Reactors.

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public, State, and/or Congressional interest exists even though there may be little to no site activity taking place.

16. Please urge that NRC inspections be more rigorous during decommissioning.

New York State and the Decommissioning Oversight Board will continue to advocate for rigorous inspections during decommissioning. As discussed in the response to the previous question, the NRC maintains a separate Oversight and Inspection program for decommissioning power reactors. Although a number of the activities and inspections that occur during decommissioning are routine and occur frequently at operating plants, the Decommissioning Oversight Board expects NRC inspectors to give special attention to activities that relate to the safe storage of irradiated fuel and any activities that have the potential to result in offsite releases during decommissioning (such as the removal of a large component, like a steam generator).

During the different stages of decommissioning, the NRC will provide subject matter experts to oversee specific activities. For example, if a large component is to be removed from the plant, the NRC may require experts in numerous subjects, such as heavy lifting, crane operation, radiation protection, and radioactive waste packaging, to be onsite at the time of removal. Also, through the State Liaison Officer Program, New York State employees may accompany NRC inspectors during inspections, and anything identified by State employees would be processed, if applicable, by the NRC's inspection and enforcement processes. All inspection results are documented in inspection reports and are made publicly available on the NRC's online document management system.

Dust Mitigation

17. In addition to potentially radioactive materials that should be monitored, how am I to have confidence every day that the playground 4000 feet away won't be dusted with concrete, asbestos, lead, or other dangerous materials kicked up by demolition activities? Rules and regulations are designed to prevent releases of material from the site, and the State will monitor decommissioning activities with this important principle in mind. Several factors collectively lessen the chances that dust from decommissioning activities affecting the public offsite or workers onsite.

One of the first steps during decommissioning involves extensive surveying and sampling of the buildings and grounds to identify the locations of radioactive materials, asbestos, toxic chemicals, and other hazardous materials requiring special handling. ² These results inform the planning for the decommissioning work, including measures to guard against uncontrolled releases.

The preparation for physical decommissioning work takes time, time that helps lessen potential hazards. For example, radioisotope iodine-131 (I-131) has a half-life of about 8 days. It has essentially decayed away after ten half-lives, or approximately 80 days. The threat from I-131 exposure is the reason that potassium iodide (KI) pills may be distributed following a nuclear

² For details, see Section 2.4.2 in

https://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML19354A698

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reactor accident. With the I-131 diminished within three months of permanent reactor shutdown, it quickly fades with time.

Buildings housing contaminated components or with concrete walls saturated with radioisotopes with longer half-lives will be dismantled from the inside out. During dismantling, air leaving the buildings flows through ducts and stacks monitored by radiation detectors. Excessive radiation levels are alarmed so the exhaust flow can be stopped. These detectors provide real-time, continuous protection against excessive releases of radioactivity to the air.³

There are two backstops guarding against airborne radioactivity bypassing the radiation detectors and blowing downwind. The first and more rapid backstop are the personnel radiation monitors worn by workers performing decommissioning activities on contaminated equipment. The workers are closest to the creation of airborne radioactivity. The personnel radiation monitors would provide rapid – often even same day – indication of a problem to allow timely intervention and remediation as necessary.

The second backstop is the series of eight air sampling units located approximately one-quarter mile to just over 20 miles from the site that are operated 24/7 and checked at least weekly by the plant operator for radiation levels. In addition, more than three dozen radiation monitors are located offsite around Indian Point. These radiation monitors are collected each quarter. 4 The most recent data is publicly available here: https://www.nrc.gov/reactors/operating/opsexperience/tritium/plant-specific-reports/ip2-3.html.

The effectiveness of the policies and procedures has been demonstrated in practice with the decommissioning of the Big Rock Point (MI), Yankee Rowe (MA), Maine Yankee (ME), Zion (IL), and Rancho Seco (CA) nuclear plants.



Yankee Rowe then | Yankee Rowe now

³ For details, see Sections 5.5.A and 5.5.C in

https://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML20259A213 and https://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML13157A133

⁴ For details, see Sections 3.3.1 and 3.3.2 in

https://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML20136A400

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These, and other, nuclear facilities have been decommissioned without experiencing airborne radioactivity releases in excess of federal limits.

The pre-work mapping of radioactive material locations, the radioactive decay of short-lived radioisotopes, the monitoring of pathways for airborne radioactivity released during decommissioning work, the radiation monitoring of workers performing decommissioning work, and the offsite radiation monitoring collectively lessen the chances for harmful amounts of radioactive gases and particles to be deposited offsite.

18. Facility should be tented, demolition should only occur in the summer, and schools need to be deep cleaned daily. I don't believe there won't be any dust.

"Tenting" is the act of encompassing a building with a physical apparatus designed to contain particulate and gaseous substances from release. This differs from the "netting,", or "vertical safety netting" often seen on certain high-rise structures, particularly in dense settings like New York City, the purpose of which is to protect people and equipment – particularly those on the ground – from the threat of falling debris.⁵

As each phase of decommissioning commences, NYS will ask Holtec to describe the dust

⁵ NYC building codes of 2014 (§3308.5): Safeguards during construction or demolition. <u>https://www1.nyc.gov/assets/buildings/apps/pdf_viewer/viewer.html?file=2014CC_BC_Chapter_33_Safeguards_</u> <u>During_Construction_or_Demo.pdf§ion=conscode_2014</u>.

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mitigation measures it plans to take and consider whether physical containment is warranted. During the current decommissioning phase, Holtec indicated it plans to conduct vessel segmentation within the Unit 2 and Unit 3 containment domes, under negative pressure, further reducing the potential for the release of particulate matter.

Spent Fuel Management

19. Waste removal will include roads to rail. Will there be any barging? We are concerned about the risks to towns and EJ communities along route, including NYC.

According to Holtec, there is currently no change to the transportation of waste as stated in the Indian Point Post Shutdown Decommissioning Activities Report (ML19354A698) and the transport path remains the same as when the units at Indian Point were in operation. There are no plans to transport waste on the road in front of the local elementary school. The use of barge transportation is being studied and any future updates to Holtec's transportation plans to use barges would be communicated with local and state authorities.

20. What is "low-level waste"?

In the United States, radioactive waste is divided into five categories:

- 1. High-level radioactive waste (spent nuclear fuel and waste produced from spent fuel reprocessing)
- 2. Uranium milling residues or tailings
- 3. Transuranic waste known as TRU (radioactive waste with greater than specified quantities of elements heavier than uranium)
- 4. Naturally occurring radioactive materials, or radioactive materials produced in an accelerator
- 5. Low-level radioactive waste

Low-level radioactive waste (LLRW) is primarily defined by what it is NOT. LLRW is any radioactive waste that is not in the other four categories. As a result, low level waste is a very broad category containing many different types of waste and a wide range of radioactive content.

Some examples of LLRW

LLRW is generated at facilities such as nuclear power plants, hospitals, medical offices, industrial & manufacturing facilities, and research institutions. It includes radioactive materials used in various processes as well as supplies and equipment that have been contaminated with radioactive materials. LLRW can include materials such as:

• shoe covers, lab coats, cleaning cloths, paper towels and other supplies used in an area where radioactive material is present.

• contaminated hand tools, components, piping, and other equipment from nuclear power plants and other industries.

• research equipment from laboratories where radioactive materials are used.

- ion exchange resins and filter materials used to clean water at a nuclear power plant.
- containers, cloth, paper, fluids, and equipment which came into contact with radioactive materials used in hospitals to diagnose or treat disease.
- filters from sampling devices used to test for airborne radioactive contamination; and
- carcasses of animals treated with radioactive materials used in medical or pharmaceutical research.

LLRW is divided into four classes based primarily on level of radioactivity:

- 1. Class A contains the lowest radioactive concentration.
- 2. Class B contains the next lowest radioactive concentration.
- 3. Class C has the highest radioactive concentration allowed to be disposed of in a LLRW disposal facility.
- 4. Greater Than Class C (GTCC) any LLRW exceeding the limits for Class C.

The Class A, B, and C waste categories are defined in the Code of Federal Regulations, Title 10, Part 61 (<u>10CFR61</u>). Section <u>10CFR61.55</u> lists the radioactivity concentration limits of specific radioactive materials allowed in each of those low-level waste classes. LLRW not meeting the criteria for these three classes is known as Greater Than Class C or 'GTCC'.

The radioactivity in LLRW can range from just above natural background levels to much higher levels, such as are seen in parts from inside the reactor vessel in a nuclear power plant. Low-level waste is typically stored onsite by licensees, either until it has decayed away and can be disposed of as ordinary trash, or until the accumulated amount becomes large enough to warrant shipment to a low-level waste disposal site.

21. Where is the low-level waste going?

The federal Low-Level Radioactive Waste Policy Amendments Act of 1985 (the Act) authorizes states to establish compacts that would allow in-state LLRW generators to dispose of waste at a common disposal facility. There are currently ten (10) interstate waste compacts in the country. New York State has not joined a compact and remains unaffiliated. As such, LLRW generators in New York may seek individual disposal relationships with any of the compacts or seek disposal at any commercial disposal facility.

There currently are four sited, commercial LLRW disposal facilities in the U.S.:

- Waste Control Specialists (WCS) in Andrews, Texas
- EnergySolutions in Clive, Utah
- US Ecology in Richland, Washington
- EnergySolutions in Barnwell, South Carolina

The first three accept waste from New York, subject to their permitted waste acceptance criteria.

- The WCS Texas facility accepts Class A, B, and C waste. WCS can also accept 'mixed waste', which is radioactive waste that also contains hazardous waste components.
- The EnergySolutions Utah facility can accept most Class A waste but not Class B or C.
- The US Ecology Washington facility is authorized to accept limited volumes of LLRW containing small quantities of naturally occurring radioactive material (e.g., radium, uranium, and thorium) from New York State generators.

Holtec has entered into a contract with WCS for disposal of LLRW from the Indian Point, Oyster Creek, and Pilgrim decommissioning activities at the Andrews, Texas site.

NYSERDA monitors generation, storage, and management of LLRW within New York as well as its shipment, treatment, and disposal out of state. This includes collection of annual reports from waste generators and publication of an annual status report which is submitted to the Governor and the Legislature each year. More information can be found here: https://www.nyserda.ny.gov/Researchers-and-Policymakers/Radioactive-Waste-Policy.

22. Why is the 20- to 25-year warranty on canisters/dry casks so short given the long time fuel will take to decay?

According to Holtec, while the warranty for the HI-STORM 100 storage system at Indian Point is 25 years, the systems are designed to last much longer than the warranty with proper aging management programs. Holtec uses the comparison to a motor vehicle warranty which is for a designated period of time, but the design life of the vehicle is a much longer length of time. Regardless of the length of the warranty, as the licensed owner of Indian Point, Holtec is responsible to ensure cask performance and compliance with NRC regulations to ensure the safety and security of its workforce and the public.

23. Why doesn't Holtec use Hardened Onsite Storage instead of its current thin-walled canisters? What mitigation measures are in place given the canister's shortcomings?

Holtec indicated it "strongly disagrees" with the characterization that Holtec's canisters are "thin-walled." In November 2021 correspondence to DPS, Holtec states:

[T]he HI-STORM system is a robust system that has been deployed around the world with no safety or radiological issues and is not designed, classified, or licensed as a "thinwalled" canister by the U.S. NRC or any regulatory organization in the world. First and foremost, this is a licensed system for fuel storage not just by the NRC but also by regulatory authorities in 14 countries around the world. No regulatory authority has ever denied a license of Holtec's spent fuel storage systems. This is due to the proven technology and safety record of Holtec's spent fuel storage systems. With over 1,500 systems that have been loaded to date, Holtec remains the leader in spent fuel storage around the globe. Further, as illustrated in the diagram below, the Holtec HI-STORM 100 system is a very robust system with an inner Multi-Purpose Canister (MPC) made of ½ - ¾ inch stainless steel containing a basket to support the fuel assemblies, surrounded by a 10 inch think stainless steel lid that is strength welded shut, and backfilled with an inert gas (helium). The MPC is surrounded by 27 inches of steel and concrete and an overpack

lid of 19 inches of steel and concrete. These systems stand 20 feet tall and weigh over 360,000 pounds fully loaded which makes each a hardened storage system. Our website features information on the robustness of the system including a test of flying a missile into the system, which shows the inner canister does not breach. In addition, many of the casks that other groups mention as thicker are not licensed in the US by the NRC for spent fuel storage.



[Diagram provided by Holtec]

24. Why is fuel being shipped out west? It should stay on site given opposition in NM and TX and adverse impact to the indigenous EJ communities out there.

The federal government, has, by law, the ultimate responsibility for the transportation and final disposition of spent nuclear fuel. Despite its representations to host communities during the licensing process, the Nuclear Waste Policy Act, and the Standard Contract, the federal government has not met its statutory and contractual obligations to take possession of, remove, and store spent and depleted radioactive nuclear fuel. Because of this, Indian Point's spent nuclear fuel will remain on site at Indian Point until the U.S Department of Energy (DOE) develops a plan to safely remove, transport, and store spent nuclear fuel. New York State remains laser-focused on this issue, which is why former Public Service Commission CEO and

Chair John Howard wrote to DOE Secretary Granholm in March 2021 to request DOE's schedule to collect and remove the spent nuclear fuel at Indian Point.

Holtec is actively packaging and shipping low level waste from the Indian Point site as a part of the decommissioning process. At this time, contaminated material and low-level waste is being transported to Texas in secure containers in accordance with New York Department of Transportation and U.S. Department of Transportation requirements. They require that any hazardous materials are controlled and monitored during transport and any high hazard materials have containers designed to prevent release in accident conditions. Holtec provided additional information on this topic during the October 27, 2021 Decommissioning Oversight Board meeting (Holtec Presentation 2021-10-27, slides 19-21) and provides Q&A on Indian Point Decommissioning at https://holtecinternational.com/communications-and-outreach/indian-point/.

25. Why is fuel being transferred to ISFSI so quickly? High-temperature/high-burnup fuel should remain in spent fuel pool for much longer than Holtec is planning. In November 2021 correspondence with DPS, Holtec states:

> [T]he nuclear industry transfers used fuel assemblies from wet storage in the spent fuel pool to dry cask storage with the approval of the NRC after the fuel assemblies have cooled and as little as one (1) year after the used fuel assemblies have been removed from the reactor cavity. High temperature and high-burnup fuel assemblies do not present a technical challenge to the safe storage of fuel assemblies in wet or dry storage. Technological advances over the last decade has allowed the time fuel needs to be stored in wet storage to be reduced dramatically.

> Thanks to the introduction of Metamic – HT baskets, which have 10x the conductivity of stainless steel and 3x that of carbon steel it allows better heat transfer within the helium-filled MPC's. In addition, the fuel transferred and stored in each cask is a mix of spent fuel that maintains the heat load of each canister. Holtec, using reactor engineering experts, carefully develops a loading plan for each cask that optimizes fuel loading to not just meet the requirements but builds in conservatism that will ensure compliance for the cask with sufficient margin. Because of this technological advancement, our Oyster Creek facility was able to remove all fuel from the spent fuel pool with 2 ½ years of shutdown and our Pilgrim facility will complete that offload in December of 2021, in the same 2 ½ year timeline while ensuring safety and security of the fuel. The Indian Point spent fuel pools will be emptied and all casks loaded by the 4th quarter of 2023.

Dry cask storage is a completely passive method of storing spent fuel that is safe for people and the environment. Cask systems are designed to contain radiation, manage heat and prevent nuclear fission. They resist earthquakes, projectiles, tornadoes, floods, temperature extremes and other natural and manmade scenarios. The heat generated by a loaded spent fuel cask is typically less than that given off by a home-heating system. The heat and radiation naturally decrease over time without the need for fans or pumps. The casks are under constant monitoring and surveillance.

MONITORING

26. Are all radiological dispersal events required to be reported to the proper federal, state, and local government entities?

Consistent with federal regulation, Holtec is required to report radiological dispersal events to the NRC. Holtec has indicated that radiological dispersal event notifications will comply with applicable federal, state, and local regulations.

27. New York State had a monitoring program in the 1990s by the health department that translated results to the public. Would the DOB research this program?

The New York State Department of Health measures the air and water near Indian Point and other locations (background) around New York to determine the normal levels of radioactivity and monitors the influence of human activities on these levels. The results of this monitoring program is posted at <u>www.health.data.ny.gov</u>. Records dating back to 2009 are currently available on this website, but older records may be obtained by contacting the Department of Health. 2019 and 2020 data are expected to be available by the 2nd quarter of 2022. Here is a direct link to the most recent data: <u>https://health.data.ny.gov/Health/Environmental-Radiation-Surveillance-Indian-Point-/ms7x-sfpf</u>

28. Why is constant interval monitoring being turned off? What long-term monitoring will be in place around ISFSI?

Because risks are different and greatly reduced after spent fuel is transferred to the ISFSI, Holtec has indicated the 16 Reuter-Stokes constant interval monitors surrounding Indian Point will remain in operation through the transfer of spent fuel to the ISFSI. The DOB School Monitoring Working Group issued <u>recommendations</u> in September 2021 that a multi-layered monitoring approach, including continuous air monitors and fixed air samplers, be taken after all spent fuel is transferred to the ISFSI. To support the recommendations of the Working Group to bolster monitoring, New York State secured a \$500,000 award from Entergy's Community and Environmental Benefit Fund. The DOB and the Working Group, in consultation with the Hendrick Hudson School District, will continue to explore appropriate monitoring apparatus moving forward.

29. Is \$500,000 enough for monitoring? If not, what will be done to meet needs?

As the next phase of decommissioning nears (tentatively 2024), the Monitoring Working Group will reconvene to identify next steps and make additional recommendations, including appropriate monitoring equipment, ancillary needs, and resources necessary for maintenance. As one input to this process, a Columbia University graduate class is working on a project to evaluate the potential impacts of decommissioning activities at the BV School, and they will make recommendations to the DOB, School Monitoring Working Group, and school district on potential uses of the \$500,000 grant.

30. Is there a way to translate monitoring reports to the public in real time?

NYS is actively engaging with Holtec and Hendrick Hudson School District on how to best provide monitoring data to the public that is both clear and informative.

31. Would the monitoring plan catch the type of contamination that happened at the middle school in Ohio?

Indian Point, as a deactivated nuclear power facility, must meet more stringent NRC regulatory standards than the Portsmouth Gaseous Diffusion Plant (in Ohio) was subject to.

The monitoring equipment and protocols (including soil sampling) currently in use at Indian Point are designed to identify any releases of radioactivity from the site and give operators data and alarms to stop such releases. The School Monitoring Working Group reviewed the existing real time monitors at the site and off-site and presented that information at the October 27, 2021 DOB meeting. As discussed at that meeting, the monitoring in place today is appropriate to detect the kinds of radioactive releases that are possible at this stage of decommissioning. By 2024, when all the fuel is in dry cask storage, the School Monitoring Working Group recommends that different monitoring equipment be deployed that would be appropriate for that stage of decommissioning. Also, a Columbia University graduate class is studying the issue further and will make recommendations to the DOB, School Monitoring Working Group, and Hendrick Hudson School District on monitoring plans and approaches for the school.

EMERGENCY RESPONSE

32. What type of warning system is in place to alert residents of dangerous radioactive release of any kind now that the sirens have been removed?

The sirens surrounding Indian Point have not been removed. The last full volume siren test was successfully conducted on October 27, 2021. The next quarterly full volume siren test is scheduled for March 2022. Further, Holtec performs a system wide siren silent test each business day, Monday through Friday, to confirm functionality.

33. What type of Emergency Response Team will be available in the event of a dangerous radioactive release of any kind and how will they be trained?

As of March 2022, there have been no changes to emergency response plans or teams at the Indian Point site. Offsite response would be per established emergency preparedness procedures that have been in place since the plant was operational, both internally and externally with surrounding counties and NYS. Coordinated response exercises and drills continue.

On December 22, 2021, Holtec made two submittals to the NRC concerning this issue. The first, titled "Request for Exemptions from Certain Emergency Planning Requirements of 10 CFR 50.47 and 10CFR Part 50, Appendix E," can be found in the NRC ADAMS database under ML21356B693. The second, titled "License Amendment Request to Revise the Emergency Plan and Emergency Action Level Scheme to Address the Permanently Defueled Condition," can be found in the NRC ADAMS database under ML21356B704. The requested exemptions and license amendment would allow Holtec to reduce emergency planning requirements and subsequently revise the Indian Point Emergency Plan to reflect the permanently shutdown and defueled condition of the station. NRC review of Holtec's Permanently Defueled Emergency Plan Exemption and License Amendment Request is not anticipated to be complete until January 2023.

New York State is aware of these submittals and a full review is in progress.

34. What are the current obligations of Enbridge to train the local emergency response (county, fire departments, Holtec)? Does it extend beyond the Fire Brigade to control room operators (or the like)?

Per federal pipeline safety regulations and the 2020 Algonquin rate settlement, Enbridge has several requirements to train local emergency response.

- Per federal pipeline safety regulations (49 CFR 192.615 Emergency Plans), Enbridge is required to establish and maintain liaison with appropriate fire, police, and other public officials to:
 - Learn the responsibility and resources of each government organization that may respond to a gas pipeline emergency;
 - Acquaint the officials with the operator's ability in responding to a gas pipeline emergency;
 - Identify the types of gas pipeline emergencies of which the operator notifies the officials; and,

- Plan how the operator and officials can engage in mutual assistance to minimize hazards to life or property.
- Enbridge confirmed to DPS Staff that it plans to perform its general liaison training meeting in 2022.
- As part of its compliance with this requirement, Enbridge's procedures require it to hold general liaison training meetings once every three years in Westchester County, which includes fire departments at/around Indian Point.
- Enbridge last performed training for fire departments in Westchester County in 2019. The training was held in Brewster, NY and was attended by DPS Staff. The meeting was to establish liaison with emergency officials and allow attending fire department officials in Westchester County to learn about gas transmission pipelines, understand the location of Enbridge's pipeline facilities, and simulate via tabletop exercise a pipeline emergency.
- In addition, Public Awareness (49 CFR 192.616, which incorporates by reference API 1162) requires letters to be sent to affected emergency officials each year. Tabletop drills in the specification are identified as a supplemental exercise.
- As negotiated by New York State Department of Public Service staff on behalf of the Public Service Commission, and as part of the 2020 Algonquin rate settlement approved by the Federal Energy Regulatory Commission (FERC), Enbridge committed to provide trainings for the City of Peekskill, Village of Buchanan, and Hamlets of Verplanck and Montrose firefighters. Due to COVID restrictions, these trainings were not performed in 2021. Enbridge is planning to perform training with those specific fire departments in 2022.
- The rate agreement further required Enbridge to provide \$530,000 to assist the Verplanck Fire District in its public safety responsibility in the vicinity of Indian Point. Enbridge met this requirement by making two separate \$265,000 transfers to the fire department on 5/21/20 and 11/18/21.

GAS PIPELINE SAFETY

The questions below were answered by Department of Public Service gas and nuclear technical staff, unless otherwise noted. Answers provided by DPS were reviewed and confirmed accurate by PHMSA. Additional Q&A on the interstate gas pipelines in the vicinity of Indian Point may be found here and on the dedicated DOB webpage.

General

35. What monitoring does Enbridge perform on the three interstate pipelines near Indian Point? The AGT pipelines undergo multiple layers of monitoring to confirm integrity and security of the pipelines. In addition to remotely monitoring pressures on its pipelines traversing the Indian Point site on a continuous basis, Enbridge is required to perform a patrol of its pipelines four times each year per federal pipeline safety regulations. During patrolling, Enbridge will look for surface conditions that could impact the pipeline, such as indications of ground movement, excavation, or construction activity, etc. In accordance with its procedures, Enbridge performs patrols of the three pipeline segments in the vicinity of Indian Point on a far more frequent basis. Federal pipeline safety regulations further require Enbridge to perform a gas leakage survey on its pipelines once each year. As part of Enbridge's Transmission Integrity Management Program, it is also required to run inline inspection tools within all three pipelines in the vicinity of Indian Point every seven years. The inline inspection tools provide data on the physical condition of the pipelines and alerts Enbridge to any features requiring attention. In addition to these direct monitoring activities, routine, code-mandated maintenance activities, primary valve inspections, and cathodic protection monitoring provide additional layers of monitoring activity to prevent, identify, and mitigate potential integrity and security issues.

DPS, as part of its interstate agent status, participated in a routine PHMSA system inspection of the AGT pipeline system in Fall 2021. As part of that inspection, DPS reviewed Enbridge's records of patrolling and leakage surveys of these three pipelines for the preceding three years and verified the patrols and inspections described above were being performed.

36. Why is the pipeline able to operate near Indian Point when it appears the risk assessment may have been reverse engineered for federal approval?

The regulatory approvals required to operate an interstate gas pipeline fall solely within the jurisdiction of federal agencies. That said, this question appears to be referring to the Nuclear Regulatory Commission's (NRC) Office of the Inspector General (OIG) report on NRC's handling of the AIM pipeline approval, which on page 6 states: "When OIG briefed NRC managers on the issues OIG identified in the Physical Scientist's analysis, one noted that because the Physical Scientist conducted multiple calculations with increasing credit for pipeline enhancements, it appeared to be backwards engineering to get a desired result."

In response to this report, NRC assigned a team of scientists to look into the AIM pipeline approval. On April 8, 2020, the team issued a report, concluding: "even though Entergy (the plant owner) and the NRC made some optimistic assumptions in analyzing potential rupture of the 42-inch natural gas transmission pipeline, the Indian Point reactors remain safe." The report

further required additional analysis by former plant owner Entergy (which were completed in July 2020) and process improvements by NRC.

37. If you were notified that a missile was headed to the pipeline, or there was some other imminent danger, and a fast decision had to be made to shut the gas, who would you contact to turn off the gas?

Matters of national security and defense are handled by the federal government's Department of Defense and Department of Homeland Security, who would provide the appropriate intelligence briefings to the key entities involved. The U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA) has primary oversight jurisdiction over interstate transmission pipelines. In the highly unlikely event that New York State's Department of Public Service was somehow notified of an imminent missile threat before the United States Department of Defense and Department of Homeland Security, the Department would notify appropriate authorities. Gas safety personnel have the necessary contact information for the gas operator and PHMSA to inform them of verifiable information that could jeopardize the safe operation of gas infrastructure.

Pipeline Repair

At the June 25, 2021 DOB meeting, PHMSA notified the DOB of pipeline repair work planned by Enbridge in the vicinity of Indian Point and commencing in October 2021. The following questions are in relation to that work.

38. Why wasn't the public notified of the repair work before work commenced?

The public was notified of the pipeline work planned by Enbridge at the June 25, 2021 DOB meeting. Additionally, pipeline owner and operator Enbridge notified local officials and public safety bodies, including New York State Police, Westchester County Emergency Services (Police & Fire), and the Village of Buchanan Police Department. Holtec and Con Edison were notified as well. NYS DPS identified opportunities for better communication and advised Enbridge to make improvements moving forward.

As a body committed above all else to a safe decommissioning, the DOB must balance public awareness with the need to protect critical infrastructure. From a security standpoint it will not always be advisable to advertise sensitive work on critical infrastructure – that is not in any way to avoid transparency with the public; it is to protect the public.

39. Why is a 26-inch pipeline being used as a backup for a 30-inch pipeline?

The 26-inch pipeline serves the same gas system as the 30-inch line and provides reliability in the event of maintenance on the 30-inch or 42-inch pipeline. Note that, since the completion of the 42-inch pipeline in 2017, the 26-inch pipeline has and continues to be isolated from gas flow but is pressurized with low pressure gas (it is not 'abandoned').

40. Was the 30-inch pipeline depressurized during repair work of the 26" line conducted in the fall of 2021?

Since the 30-inch pipeline is 13 feet away from the 26-inch pipeline, was not exposed, and thus was not under any more significant threat of being compromised during work on the 26-inch line, it was not depressurized.

41. Why was the excavation site left unguarded (no security, no police) despite the proximity to Indian Point? Why did nothing happen until we contacted elected officials? Does New York State have any concerns with an unguarded pipeline?

Security was required during active work, per Village of Buchanan requirements. However, as there was no gas in the pipeline, the appropriate safety standards and procedures were observed, and the proper signage and protective barriers were in place to prevent individuals and/or vehicles from falling into the excavation, the Village of Buchanan permit conditions did not require security when there was no active work on the pipeline.

Numerous excavation safety protocols, procedures, and protective barriers are required for an open excavation to protect against security threats, this repair work being no exception. For instance, in addition to the measures described above, the pipeline operator was required to inspect the pipeline prior to backfilling to confirm integrity of the pipeline – a process that was observed by DPS staff. These inspections would detect integrity issues, including but not limited to coating damage, and serve as a backstop against the unlikely threat of tampering.

42. Where and when is the methane gas vented before work commences on a line? Was the public alerted about the release?

The 26-inch pipeline was vented down to 0 psig gas pressure on October 19th. Prior to the blowdown, the pipeline was not flowing gas and was at minimal gas pressure (18 psig). The blowdown occurred at AGT's facilities on the east side of the Hudson River near the Indian Point site. The following entities were notified: New York State Police, Westchester County Emergency Services (Police & Fire), Village of Buchanan Police Department, Holtec, and Con Edison.

43. Did Enbridge communicate with Holtec about the planned work?

Enbridge provided notice to Entergy on May 24th of the work and held a conference call on May 25th. There was email correspondence between Holtec and Enbridge on September 21, September 23rd, and September 30th, 2021 on the planned work. Holtec was kept continuously apprised of the work. That said, DPS will continue to encourage and facilitate maximum communication between Holtec and Enbridge.

44. What is the tensile strength of steel plates used to traverse pipelines over an open excavation?

Per NYS Department of Transportation (DOT), the load capacity of these steel plates is a function of the steel tensile strength, plate thickness, trench width (if applicable), axle spacing, load distribution, and soil condition.

The steel plates used by pipeline operator AGT during the work conducted at the pipeline intersection with Broadway in October 2021 are rated for AASHTO HS20-44 loading and in

compliance with relevant Department of Transportation (DOT) requirements. According to the specification, in the case of a semitrailer truck, the maximum loading for the first axle is 8,000 pounds; the maximum loading for a second axle 14 feet away is 32,000 pounds, and the maximum loading for a single-axle semitrailer 14-30 ft away from the second axle is 32,000 pounds. Any vehicle in compliance with the legal load for the roadway would not have exceeded the weight limit of the steel plates. On 10/25/21, members of the public sent a photo of what is stated to be a Holtec truck over the roadway plates - the rated loading of the plates far exceeds the loaded weight of the truck shown in the photo.

45. Are there measures in place to prevent excessive loads from traveling on a roadway?

Yes. There are numerous local, state, and federal regulations in place to prevent excessive loads from traveling on roadways in New York State. In addition, permitting and notification processes are in place to ensure hauls exceeding legal load are routed on the safest roads and using the most appropriate additional safeguards, including escort vehicles. Businesses and holders of commercial driver's licenses are required to understand these regulations and processes in order to conduct business in New York State.

Decommissioning

46. Why aren't pipelines mentioned in Holtec's PSDAR?

Recognizing that the Holtec PSDAR filed in December 2019 does not address the gas pipelines traversing the Indian Point site, NYS is using its regulatory and oversight authority to rectify this omission. The Joint Proposal reached between New York State and Holtec in April 2021 acknowledges the colocation of gas pipelines with Indian Point and requires bolstered communication and advanced notice to key state agencies prior to excavation and heavy load crossings. In a government-to-government meeting with the Nuclear Regulatory Commission on July 29, 2021 regarding the Holtec PSDAR, NYS DPS emphasized the need for the gas pipelines on the site to be protected during decommissioning. Members of the public provided similar feedback to the NRC during public meetings on the Holtec PSDAR on July 29, 2021 and August 18, 2021. In addition, NYS DPS, through the New York State Office of Fire Prevention and Control, requested that Holtec incorporate pipeline incident preparedness in its Indian Point Decommissioning Plan for Fire Protection Program. DPS has coordinated information exchange between Enbridge and Holtec to formalize and document exact locations of the pipelines on site, integrity test results on the pipelines, maximum load thresholds for the pipelines, and appropriate mitigation measures.

47. What is the weight rating of the steel plates Holtec uses for heavy load transfers?

According to Holtec, the steel plates used for a bridge on the roadway of the IP site for heavy load transfers are like those used for typical road work projects and are consistent with steel plates that have been previously used at Indian Point for other heavy load transfers. The plating configuration that was reviewed and accepted by Enbridge for the movement of a main transformer several years ago allowed for transport of a 567,000-pound load on a multi-axle transport trailer. The same steel plate configuration is installed at the site today, and no heavy load crossings are planned that would exceed this load.

The Department of Public Service asked Holtec to formally confirm the specified weight rating of the plates used for heavy load transfers. The Department also asked Holtec to confirm with Enbridge that the bridge created by the steel plates remains a technically acceptable approach that would mitigate risk to the pipeline(s) from any actual/anticipated heavy load crossings over the pipeline(s). Holtec has informed DPS that Enbridge conducted a field visit and confirmed the current steel plate bridge configuration is sufficient for the heaviest loads Holtec may transfer over the pipeline(s).

48. What constitutes a "heavy load" crossing? Or what is the expected range of weights of a loaded decommissioning vehicle? Does Holtec have site-specific guidance/ procedures for the movements of heavy loads on the Indian Point site?

According to Holtec, Indian Point is using the most limiting condition previously seen on site, which was movement of a main transformer weighing over 567,000 pounds. This work was performed in 2012 and in 2015. At that time, the steel plate bridge configuration utilized for the heavy load crossing was reviewed and approved by the pipeline owner and operator. The roadway plating design that was utilized for the 2012 and 2015 main transformer work is currently being implemented as a conservative measure. Holtec is communicating with Enbridge and the Department of Public Service to evaluate if additional actions are warranted.

At the request of the Department of Public Service (DPS), Enbridge supplied DPS and Holtec with maximum surface loading capacities and other key measurements to more formally document what loads may be safely transported over the existing pipeline infrastructure during the decommissioning process. DPS has requested from Holtec its site-specific guidance and procedures to protect the on-site pipelines if it must take loads greater than those maximum capacities over the pipeline. The Department has also required Holtec to formally notify Enbridge and the Department of Public Service 5 days prior to any heavy load crossing of the pipeline and receive formal confirmation from Enbridge that such crossings can safely occur with appropriate mitigation measures. The Department has requested that Enbridge formally confirm that the bridge created by the steel plates would be a technically acceptable and protective approach that would mitigate risk to the pipeline(s) from any actual/anticipated heavy load crossings over the pipeline. Holtec, Enbridge and DPS have quarterly coordination meetings where these matters are regularly discussed and any issues of concern are addressed.

- **49.** What is the possibility that other contaminated material will traverse the gas pipeline? Holtec is actively packaging and shipping low level waste from the Indian Point site as a part of the decommissioning process. Regardless of the material being transported, the April 2020 Joint Proposal between Holtec and the Department of Public Service requires Holtec to provide advanced notification to Enbridge and New York State of any heavy load crossing to ensure maximum load thresholds are never exceeded.
- 50. Why is Holtec showing the NRC where the pipeline is and not a PSC staff member interacting with NRC to ensure NRC understands?

DPS interacts with Holtec and NRC to facilitate critical information sharing, including on the

interstate gas pipelines. Over the last several years, DPS delivered numerous communications to NRC and other relevant federal agencies regarding the interstate gas pipelines and the risk analyses related to their safe operation.

As the federally licensed operator of Indian Point, it is appropriate for Holtec to be in regular communication with NRC on all matters pertaining to the safe transfer of spent fuel and decommissioning of nuclear facilities, including on matters related to the colocation of critical pipeline infrastructure on or near the Indian Point site.

51. Were pipelines put near Fort St. Vrain before or after decommissioning?

Pipelines were put in operation both before and after decommissioning of the Fort St. Vrain nuclear power station. The federal Atomic Energy Commission authorized Fort St. Vrain to operate in December 1973. In 1974, a 16-inch natural gas pipeline was installed that crossed a corner of the plant property, with a closest point 0.9 miles from the reactor building. Twelve natural gas wells were drilled on the site between 1981 and 1983, the closest well being 1,524 feet from the reactor building. In late 1987, a natural gas well was drilled 1,184 feet from the reactor building. Its pipeline passed within 560 feet of the switchyard. The plant ceased operations in 1989 and was decommissioned in 1992. The owner re-powered the site with three natural gas combustion turbines, with two more added later on. The natural gas supply is via a 12-inch pipeline passing within 1,400 feet of the dry storage facility.

OTHER

52. Are there any monies from elsewhere going to research on river infrastructure resiliency for climate change? For instance, would this be a layer in the Buchanan Cortlandt sewer project? NYS has a variety of funding programs available for projects to upgrade infrastructure and make communities more resilient to flooding and other impacts of climate-driven severe storms and weather events, including the Water Infrastructure Improvement Act (WIIA), Water Quality Improvement Project (WQIP) Program, and Intermunicipal Grant (IMG) programs. Details regarding a recent announcement by Governor Hochul can be found at: https://www.governor.ny.gov/news/governor-hochul-announces-600-million-grants-available-water-infrastructure-and-resiliency

The Hudson River Estuary program also provides annual grants and technical support for resiliency projects including:

- Help for communities to achieve Climate Smart Communities certification which puts them in a position to compete for NYSDEC Climate Smart Communities grants. This is a partnership with Cornell Cooperative Extension, which provides technical assistance to 10 communities annually.
- Estuary grants: A competitive RFA is generally announced in April every year with a maximum grant of \$50,000 which supports projects to:
 - Create resilience plans and strategies for waterfront communities along the Hudson River estuary shoreline to adapt to climate change risks like flooding and sea-level rise and potential climate impacts on natural resources and the environment.
 - Develop Engineering Plans/Designs to make water infrastructure more resilient to flooding and/or sea level rise
 - Water Quality Monitoring, Watershed Characterization, and Water Quality Improvement Planning and Design

In addition, The Community Risk and Resiliency Act requires applicants for certain permits or funding programs to demonstrate that future physical climate risk due to sea-level rise, storm surge and flooding have been considered, and that these factors be incorporated into certain facility-siting regulations. NYSDEC, in consultation with the NYS Department of State, developed New York State Flood Risk Management Guidance for Implementation of the Community Risk and Resiliency Act, which may be found at:

https://www.dec.ny.gov/docs/administration_pdf/crrafloodriskmgmtgdnc.pdf

53. How can we arrange for a tour of Indian Point?

At the October 27, 2021 DOB meeting, Holtec extended an invitation to those interested in a site visit to contact Richard Burroni, Senior Vice President at Indian Point.