

To: Nuclear Regulatory Commission  
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ADD: Richard Guzman, Mary Neely  
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Subject: COMMENTS ON DECOMMISSIONING OF INDIAN POINT

I am writing to express my concerns about the plan by Holtec for decommissioning the three units of the Indian Point nuclear power plant. This plan is completely inadequate with regard to key safety and financial issues affecting the New York City Metropolitan Area. There are a number of such issues, several of which I discuss below.

### **Safety Issues**

1. **Potential Explosion of Nearby Pipelines.** Not only is Indian Point located at the intersection of two earthquake faults, it also has the Algonquin and a new 42' high-pressure AIM gas pipeline plus other pipelines running under and adjacent to the facility. The demolition work inherent to decommissioning increases the danger of a pipeline explosion; New York State and multiple independent experts recognize the risk. However, the pipelines are not even mentioned in Holtec's plan. The NRC's Office of Inspector General harshly criticized the NRC staff for ignoring key data and tailoring its modeling of explosion risks to fit the desired foregone conclusion that the danger of an explosion is "not credible" and therefore no action is necessary.
2. **Cask and Canister issues.** Holtec plans to use a containment system for Spent Nuclear Fuel of thin-walled canisters (1/2" = 5/8") inside thicker concrete casks lined up like bowling pins on a concrete tarmac. This configuration is more vulnerable to terrorism than Hardened Onsite Storage (HOSS), which could be much safer and should be considered. In Europe and many other countries nuclear waste is stored in more robust canister systems (10" – 20" thick) and often in hardened buildings.
3. **High Burnup Fuel.** About 60% of Indian Point's spent fuel inventory is high-burnup fuel, which is much hotter and more radioactive than ordinary spent fuel and requires at least seven years or more before being moved to dry cask storage. Holtec's plan to compress this process to three years or less may reduce costs, but also puts workers and the surrounding community in jeopardy.
4. **Inadequate Site Remediation:** Holtec's plan indicates that it will do nothing to remediate radiological contamination known to be leaking into the groundwater and the Hudson River. The plan would only superficially remediate contaminated soils.
5. **Radiation Monitoring:** Holtec's plan makes no provision for effective, accurate, off-site radiation monitoring despite the fact that radioactive particles and gasses are expected to be released into the air during the demolition of structures on site. The NRC has no requirement for offsite monitoring and therefore absolves Holtec from paying for it. There are also no provisions for detecting increasing pressure or temperature, container crack formation, or other problems that can lead to radiation leakage from the sealed thin-walled canisters they plan to use. Nor is there nor any provision for responding to and remediating a leak or other failure, should such occur.
  - Perimeter monitoring is not adequate for capturing issues directly at the work site which can impact the workers.
  - Offsite monitoring is needed, especially at nearby elementary school.

- At Bruce Units 1 & 2 in Ontario, Canada more than 500 workers were exposed to radioactive dust and volatilized isotopes while cutting channel tubes that needed to be replaced.
6. **Emergency Planning and Response:** In the Joint Proposal, NYSDHSES will oversee Emergency Management and Response, with funding provided by Holtec, starting at \$1,000,000 per reactor in 2022, decreasing when all the radioactive fuel is move to dry cask storage and then dropping to \$250.00 -- \$750,000 depending on when that transfer is completed, and to \$100,000 after Partial Site Release and as low as \$25,000 until License Termination. Although dangers resulting from failure of a reactor, steam turbines, transformer explosions or other major failures have decreased since the plant ceased operation, nearly 2,000 tons of highly radioactive fuel is stored on site and dismantling the facility poses new dangers and the need for emergency planning will continue as long as waste is stored on site. The funding schedule is clear but the actual emergency evacuation plan for various occurrences is not.
  7. **Transportation:** Holtec's plan envisions shipping Indian Point's radioactive waste, including highly radioactive spent fuel, down the Hudson River by barge. This is a highly risky and potentially catastrophic proposal.
    - Barging contaminated materials down the Hudson River through NY Harbor poses a risk to river towns and the greater NYC Metropolitan area.
    - As the high-level nuclear waste is transported across the country, it will threaten the safety of communities along the transport routes, especially EJ populations in under-represented cities and rural areas.
    - A 2019 Department of Energy (DOE) Gap Analysis indicates that more needs to be understood about the impact of changing the vertical orientation used in dry cask storage to a horizontal orientation for transport, including increased temperature and possibility of degrading the cladding which hold the fuel pellets in place in the fuel rod. It recommended additional modelling, which is not being done.
    - Aging infrastructure along transportation routes -- road, bridges, overpasses, and tunnels -- has not been assessed to see if it is capable of handling 120,000 metric tons of nuclear waste that would be sent to proposed Consolidated "Interim" Storage (CIS) in Texas or New Mexico -- let alone preparing for effective emergency response should an accident occur due to failed infrastructure and/or other causes. Note: Interim is in quotes because, if allowed, it could well become indefinite, if not permanent.
  8. **Environmental Justice Concerns:** The operation and decommissioning of nuclear power plants and the transportation and storage of spent nuclear fuel disproportionately impacts communities of color and low income in reactor communities, such as those at and surrounding Indian Point. These activities also disproportionately impact communities along the proposed transportation routes, especially indigenous and Latinx communities at potential recipient sites in Texas and New Mexico.
    - Communities downwind from the Trinity Atomic test site -- mainly indigenous and Latinx -- have been burdened with radiation exposure and have suffered health and other impacts and should not be forced to host most of the 3,200 spent fuel canisters -- the nuclear waste from nearly 100 reactors across the nation.

- The proposed CIS facilities are collocated in areas of fossil fuel extraction -- including active oil fields and hydraulic fracking sites; the fracking sites are known to induce earthquakes.
- Holtec's plans for off-site transport of radioactive waste, shipping Indian Point's spent fuel to New Mexico to be stored at Holtec's consolidated interim storage facility are unacceptably dangerous, and violate the principles of environmental justice and consent-based siting, as well as federal law, which prohibits interim storage before a permanent repository is sited.

Because transportation is so dangerous and the proposed CIS storage is both unjust and unlawful, we must be very certain that onsite storage is done as safely as possible.

### **Financial Issues**

9. **Financial Risk to New Yorkers:** With the License Transfer, Holtec has taken over the \$2.3 billion plus Decommissioning Trust Fund. Although NYS has negotiated some important financial assurances, Holtec is a privately owned company with no financial transparency. Ultimately, if everything does not go according to Holtec's plan, New York taxpayers may be left holding the bag.

### **NRC Oversight**

Given its history of easily granting waivers and exemptions to the nuclear industry, often at the expense of public health and safety, and of at times not following its own regulations, the NRC has been described as an "industry-captured agency".

- Frank von Hippel, former assistant director for national security in the White House Office of Science and Technology, recently wrote, *"Over the past two decades, the NRC has been captured by the nuclear power companies it is supposed to regulate. The process of capture and resulting erosion of regulation has been driven in part by the increasingly poor economics of nuclear energy as companies struggle to avoid large costs due to additional safety measures. However, the path has been laid to a potential disaster."*
- NRC ignores or dismisses many of the problems cited above. It has allowed Holtec to make unauthorized and flawed design changes stand, has exempted Spent Nuclear Fuel (SNG) containment from meeting American Society of Mechanical Engineers Standard (ASME) Standards, ignored NWTRB recommendations, and made other decisions that compromise their role as regulators and could have severe consequences.
- This is a chance for the NRC to honor its mission by putting people before industry profit and making wise decisions that include planning for worst case scenarios, rather than dismissing those as "not credible."

Thank you for consideration of my comments. The decommissioning of Indian Point is a highly risky undertaking with great potential for damage to many people and communities. Holtec's current plan needs to be rejected and required to undergo substantial revision.

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