

**MEMORANDUM IN SUPPORT OF:  
S.5181 (Harckham)/A.5338 (Levenberg)**

**To:** New York State Assembly and Senate

**Date:** May 3, 2023

**Subject:** S.5181/A.5338 Prohibits the discharge of any radiological agent into the waters of New York State

The League of Women Voters of New York State (League of Women Voters NYS) has a longstanding position to protect and preserve the integrity of our natural resources, including our finite water supply, while also protecting the environment, health and wellbeing of the State's residents. In this context, the League of Women Voters NYS supports the above referenced legislation which if enacted into law will make it unlawful for any person or entity, directly or indirectly, to throw, drain, run or otherwise discharge (hereinafter collectively referred to as "discharge") any radiological agent<sup>1</sup> into the waters of New York State. One example which this legislation will address involves the decommissioning of Indian Point Energy Center ("Indian Point") by Holtec International and its affiliates ("Holtec") being overseen by the Nuclear Regulatory Commission and pursuant to an order on consent with New York State Department of Environmental Conservation;<sup>2</sup> decommissioning includes the disposition of wastewater from spent fuel rods that contains radiological agents associated with the potential to cause adverse impacts to health and DNA.<sup>3</sup>

In 2021, New York voters overwhelmingly approved an amendment to the State's Constitution that provides "Each person shall have the right to clean air and water and a healthful environment."

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<sup>1</sup>Radiological agent means radiation or radioactive material at a level that is dangerous to human health.

<https://www.lawinsider.com/dictionary/radiological-agent>

"Nuclear and radiological agents are radioactive materials that present a hazard in two ways: • Emission of highly penetrating radiation leading to external irradiation of individuals. • Irradiation of tissues and organs in the body if the agents are inhaled, absorbed through the skin by direct contact or contact with contaminated matter, or ingested in contaminated food or water." (See page 9) <https://www.icrc.org/en/doc/assets/files/publications/icrc-002-4175.pdf>

<sup>2</sup>[https://www.dec.ny.gov/chemical/126311.html#:~:text=Ownership%20of%20the%20property%20was,Nuclear%20Regulatory%20Commission%20\(NRC\).](https://www.dec.ny.gov/chemical/126311.html#:~:text=Ownership%20of%20the%20property%20was,Nuclear%20Regulatory%20Commission%20(NRC).)

<sup>3</sup>According to Kenneth O. Buesseler, a marine radiochemist at the Woods Hole Oceanographic Institution, while NRC monitors data from Holtec (in his region, at the Pilgrim Nuclear Power Commission) the decommissioning data is not as specific as it could be. Dr. Buesseler cites the importance of monitoring the cumulative impacts of exposure to small dose exposure "because accumulated radioisotopes can enter the ocean food chain and eventually reach humans if they eat seafood from the bay. It is difficult to predict the potential health consequences of this without more specific data on the concentration of radioisotopes," he said. "... "These nuclear materials do not have to go into Cape Cod Bay, Dr. Buesseler said. He suggested keeping the water on-site because its radioactivity will decrease over time." [https://www.capenews.net/regional\\_news/whoi-scientist-weighs-in-on-risks-of-radioactive-wastewater/article\\_81fdadc5-9a28-5798-bf93-d2a4911e9e3c.html](https://www.capenews.net/regional_news/whoi-scientist-weighs-in-on-risks-of-radioactive-wastewater/article_81fdadc5-9a28-5798-bf93-d2a4911e9e3c.html)

See also: <https://www.ucsus.org/resources/safer-storage-spent-nuclear-fuel#:~:text=When%20fuel%20rods%20in%20a,generate%20significant%20heat%20for%20decades.>

See also: <https://theconversation.com/nuclear-power-how-might-radioactive-waste-water-affect-the-environment-159483#:~:text=During%20the%20cooling%20process%2C%20the,into%20nearby%20bodies%20of%20water.>

Pursuant to Article IV, §3 of the New York State Constitution: “The governor shall expedite all such measures as may be resolved upon by the legislature, and shall take care that the laws are faithfully executed.” An example: Governor Hochul signed into law legislation that allows local water authorities to take legal action against drinking water polluters for claims that were previously barred due to the statute of limitations. In that context, the Governor stated, "Every New Yorker deserves access to clean, safe and affordable drinking water." Adding, "By signing this legislation, which gives local water suppliers another avenue to take action against polluters and recover the costs of treatment or filtration, we are making sure that we not only hold these companies accountable but also prioritize the health and wellbeing of New Yorkers."

Actions involving the discharge of radiological agents into waterways that are not measured with accuracy and with attention to cumulative impacts threaten the constitutional protections of New Yorkers to clean water and a healthful environment, as clarified by this legislation. This includes, without limitation, Holtec’s proposed discharge of wastewater into the Hudson River in connection with the decommissioning of Indian Point.

Science makes possible the ability to fingerprint water<sup>4</sup> and the source of radiological discharges<sup>5</sup> legitimizing the enforceability of this legislation.

The legislation’s escalating fines (\$25,000 daily for the first violation; \$50,000 daily for the second violation; and \$150,000 daily for further violations) for prohibited discharges provide a (i) meaningful disincentive to any person or commercial entity using a cost-benefit analysis to determine business risks and practices; (ii) deterrent to rouge actors; and (iii) objective criteria to determine applicable damages.

The burden of demonstrating safety regarding a discharge into New York waterways correctly belongs with the person or entity seeking to cause the discharge. Unless and until such time as any person or entity responsible for one or more discharges can scientifically verify that singular or cumulative exposure to such discharge(s) involving New York waterways have no demonstrable adverse health or biological impacts on DNA, this legislation will protect the healthful environment intended by New York State’s Constitution.

For the reasons stated above, the League of Women Voters of New York State urges your support of S.5181 (Harckham)/A.5338 (Levenberg).

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<sup>4</sup> “By determining the composition of isotopes in a water sample, a record of its passage can be assembled. This allows hydrologists to navigate groundwater sources and determine their history and the pathways they have followed: whether the reserve is replenished by rain, is at risk from pollution, whether it is young or old water.” <https://www.iaea.org/newscenter/news/isotope-hydrology-fingerprinting-water>

<sup>5</sup> “All radioactive material carries a signature, like a fingerprint. The signature describes characteristics of the material, such as which chemical elements the material contains, how heavy or light these elements are (‘isotopic abundance’) and other physical and chemical properties. Crucially, the signature can be used to link nuclear material back to the original radioactive minerals from which the material was made, and can also reveal links to locations, individuals, chemical and physical processes, production dates and even intended use.” <https://geoscienceforthefuture.com/nuclear-forensics/>