

ROCKLAND ENVIRONMENTAL GROUP, LLC
75 N. MIDDLETOWN ROAD
NANUET, NY 10954
(845) 371-2100
SUSAN@HITOSHAPIROLAW.COM

10/22/22

Office of Administration
Mail Stop: TWFN-7-A60M
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

ATTN: Program Management, Announcements and Editing Staff.

Via Email: Stacy.Schumann@nrc.gov., Richard.Guzman@nrc.gov.

Docket ID NRC-2021-0125
RE Indian Point PSDAR on Decommissioning

I am submitting these comments as on behalf of the Ramapough Lenape Nation, and as a core member of the Indian Point Safe Energy Coalition (IPSEC), as a New York State attorney as an organic farm and as a resident and property owner within in the Indian Point reactor community.

Everyone included elected officials, the NRC, Holtec, and all the people living within the Indian Point reactor community 50-mile radius need a reality check about how the public's decommissioning and the tons of radioactive nuclear waste can be safely managed at Indian Point now that it is permanently closed.

I am asking that the questions, who answers are necessary to ensure transparency. Please answer in writing the questions and requests for information in bold below. Additionally the answers and information to these question need to be included⁶ in the PSDAR otherwise it is incomplete and inaccurate.

The first question is straightforward and should not be difficult to answer.

How many tons of radioactive nuclear waste, and how many radioactive fuel assemblies are at the Indian Point site?

This question was repeatedly asked of Mr. Watson, who is supposedly in charge of decommissioning of Indian Point, and he was unable or refused to answer. It is not rocket science to know how much waste is on the site. It is incomprehensible how Mr. Watson the person, who is supposedly in charge of the decommissioning of Indian Point was unable to answer this simple factual question at three different

public meetings. Is Mr. Watson being an obstructionist or is he willfully ignorant about one of the most important facts about the Indian Point site he is in charge of decommissioning?

Once again, I ask that you provide this factual data without any further delay.

It was also quite disturbing that Holtec is falsely promising the public and elected officials that it will remove all the waste from the spent fuel pools and the site within 3 years. Reality check –high-burn-up fuel cannot be safely removed from the cooling waters of the spent fuel pools for at least 7 -10 years. For over 10 years the extremely hot and radioactive high-burn up nuclear waste was produced at Indian Point. Furthermore, the Holtec casks approved by the NRC are not designed to store high-burn-up fuel.

So the next easy question, is how many tons of radioactive high burn-up fuel and how many radioactive fuel assemblies are located at Indian Point?

Reality check – the promise by nuclear owners and the NRC that the waste from Indian Point and other east coast nuclear reactor sites are going to be swiftly shipped out and buried out Southwest is unrealistic and untenable. Transporting tons of radioactive waste across the nation's roads, rails and rivers not only endangers millions of American lives, but it also is a blatant violation of human and environmental justice rights of the indigenous and Latinx peoples of New Mexico and Texas. Furthermore, the thin-walled Holtec casks approved by the NRC for use at Indian Point are not designed to safely transport nuclear waste.

If the NRC needs to be honest with the public and let elected officials and residents know that there are currently no plans to remove the waste from Indian Point and that most if not all the nuclear waste produced at Indian Point will remain there indefinitely. Reality check: the promise by Holtec and the NRC that the site can be restored for commercial use is pure nonsense.

The reality is that there is no nuclear waste plan exists. The NRC used to have a Waste Confidence Rule, but that no longer does. The NRC has acknowledged that it does not have confidence that there is a way to safely deal with any or all of the toxic, highly radioactive, long-lived nuclear waste created at Indian Point and all the other nuclear reactors since the inception of nuclear energy.

Unfortunately, the simple truth is that neither the Department of Energy or the NRC have any idea of how to safely store nuclear waste until it is no longer radioactive. After nearly 75 years of nuclear fission, there is still no real plan on how to safely store nuclear waste. Since its inception of nuclear energy production, the problem of nuclear waste storage has never been resolved. The Department of Energy broke its promise to every nuclear reactor host state, including New York State, that it would take ownership and remove nuclear waste from reactor sites. Because of this every year the DOE has been paying reactor owners to store their nuclear waste on-site, which resulted in overcrowded

spent fuel pools and now is turning nuclear reactor sites into de facto nuclear waste dumps.

For NRC to allow Holtec or any other reactor site operator to use the public decommissioning to pay for storage of nuclear waste is wrong and is a violation of the Atomic Energy Act. Decommissioning Trust funds were created to be dedicated solely to clean up nuclear reactor sites and for decommissioning activities, not for waste storage. Funds for waste storage are the responsibility of the DOE, not New York State or its residents.

The nuclear industry has no ability or knowledge of how to dispose its tons of toxic garbage. The only option that exists at this time is for the nuclear waste to be stored where it was produced indefinitely, using the best technologies available.

Because nuclear energy was foisted upon the public before to having a system to manage nuclear waste, the unconsidered and unresolvable toxic legacy of nuclear energy is now our responsibility and will be a serious problem for many generations, as it remains hot and lethally radioactive for centuries. If released into the environment nuclear waste will lead to epidemic cancers death and the ultimate extinction of the human species. It is now the NRC and the DOE's responsibility to devise mechanism and funding programs to safely cask and recast nuclear waste periodically as needed when the current cask decay within 40 to 100 years. Even the NRC has acknowledged that at least every 100 years cask will have to be replaced but has not proposed any plans to do so.

The limited knowledge of nuclear scientists and engineers in the late '50s and 60's when the Indian Point relied on the belief that concrete was permanent and impermeable. When Indian Point was built many concrete conduits, including ones for electrical and large ones to carry water were made out of concrete and buried underground. Then in 2004, a relatively small earthquake damaged one of the concrete electrical cable conduits. This was a surprise to everyone since until that time it was believed that buried concrete conduits would not break. Around the same time cracks were also found in concrete at the Delaware Aqueduct.

It was discovered that concrete used in nuclear reactors which were thought to be impermeable or unbreakable was not but was rather permeable and brittle. This lack of knowledge about the rapid aging decay of concrete bombarded by radioactive atoms has resulted in nuclear reactors to be seeping a large amount of radioactive effluent into the ground and groundwater.

In the early 2000s cracks and leaks started showing up throughout the United States nuclear fleet. 2/3 of all nuclear reactors have large underground leaks that had been leaking for many years before they were known.

Please provide all camera investigations and other studies about the condition of the buried concrete water conduits under Indian Point. If such investigations have not already been done, explain why they haven't already

occurred and then undertake this necessary investigation before to dismantling the site.

At Indian Point, radioactive leaks from Spent Fuel Pool 2 were accidentally discovered by an independent contractor, not through routine NRC oversight and investigation. Due to the NRC's gross negligence, lack of oversight, and enforcement of safety standards the radioactive leaks remained undetected under the NRC's watch for at least 8 years and possibly as long as 20 years before it was discovered accidentally.

The desalination pilot plant in the Haverstraw Bay, three miles downriver from Indian Point, found measurable amount of radioactive contamination, tritium, and strontium in the finished water, proving Indian Point radioactive leaks migrated in measurable amounts into the Hudson River. Dilution is not the solution to radioactive pollution because the radioactive particulates do not change when diluted and all that dilution does is expand the area of contamination.

At Braidwood in Illinois - an entire reactor community was contaminated from unknown groundwater leaks of tritium and other radioactive isotopes- children died and were born with serious birth defects. The NRC's claim that ingestion and exposure to tritium has mild health impacts has been proven to be untrue.

The NRC's now claims tritium could be diluted into water systems, rivers, or groundwater? This is also false. Radioactive isotopes do not break down and dilute - hot radioactive atoms do not cool down until all its half-lives are burnt out –which can take eons.

Why should the public believe the NRC claims that they will protect public health and safety from groundwater leaks when they have not done so, yet?

Please provide all the groundwater and effluent leak maps of the Indian Point site, including the ones from the NRC/Entergy website referenced in the telephone conference with myself, Marilyn Elie, and Judy Allen. Attached are the only maps the public has ever been able to have access to, we ask that you now provide the public with all the maps of groundwater, and radioactive effluent at Indian Point in the NRC files.

It was surprising to be told in our teleconference for the first time that Entergy had been posting the monitoring data on a website. This was a surprise since when we asked for this information throughout Entergy's tenure both the NRC and Entergy told the public that we could not have access to the information collected by Entergy, as it was propriety property of Entergy, a private corporation, and no website was every disclosed. Multiple FOAI requests and direct requests for the groundwater and leak maps were repeatedly denied. Copies of the maps were never provided to the public and were only shown fleetingly at NRC conferences.

The few water flow maps prepared by the NRC that the public was allowed to see

showed that the depth of the radioactive effluent under the plant be as deep as 75', nearly the same as the height of the reactors.

Now when asked to provide the link to the Energy website, or a copy of the reports, the NRC staff said that the Energy website had been taken down and was no longer available.

Wow, that's some game. First, the NRC says we can't have the information and maps because they are privately owned by Entergy, then claim this information was always available to everyone. And then poof just like that, all the supposedly "public" information has magically disappeared into internet space – where we know nothing ever disappears.

Stop playing games and please provide all radioactive leak monitoring reports and maps to the public and the elected officials immediately. Please provide the link to the secret Entergy website where the data regarding the leaks including maps and charts.

This information, which should be readily available in the NRC oversight files. If it is not, it is clear evidence of the NRC's failure of oversight.

In approximately 2008, the NRC started to clean up the radioactive contamination at Indian Point but stopped when it was determined that the clean-up was increasing leaks from the spent fuel pools. The NRC instead allowed large quantities of radioactive cesium, strontium, and tritium effluent to continue to be released into groundwater and leach into the Hudson River.

Now for the NRC to make rational and reasonable decisions about how to clean up and decommission the Indian Point site, it needs to know how many gallons of water is laced with strontium, cesium and other radioactive nuclides have leaked from Indian Point into the ground. When asked this question the NRC did not know the answer. Incomprehensibly they also claim that the Indian Point leaks have been monitored for years. Both can't be true.

At this time, we ask the NRC to provide a comprehensive report on the total amount of radioactive effluent that has been leaked at the Indian Point site since it was first constructed until its closure.

Also, to conduct safe decommissioning the NRC needs to provide New York State at a bare minimum with as-built plans of Indian Point along with all the many design basis deviations it granted from the time Indian Point was constructed.

Please provide the as-built plans and all the deviations, exemptions, relaxations, revisions, and other amendments and changes to the design basis standard granted by the NRC to Indian Point.

We are concerned that the contaminated soil under the reactor sites cannot be easily

removed, as proposed by Mr. Watson, as he claims were done at other reactor sites, since Indian Point is on fractured and cracked bedrock. Blasting of the site could aspirate radioactive isotopes and contaminate nearby properties including local schools.

Provide updated, current, and fully independent hydrological studies to access the current condition of the site.

The PSDAR is an insufficient and incomplete document that cannot be relied upon as there is no mention of the three large existing natural gas pipelines and how decommissioning activities may impact their structural integrity or what mitigation measures will be required.

Please provide a full examination of the gas pipelines before any decommissioning activities are commenced.

Is the NRC committed to conducting a full Environmental Impact Study review required by NEPA before allowing decommissioning activities to commence?

Although there is a set of 16 continuous radiation monitors arranged around the site at distances from 0,4 miles to just over 2 miles from the site. The problem is that elected officials and members of the reactor community lack real-time access to this data. At best, it's available at least three months after a spike has already occurred.

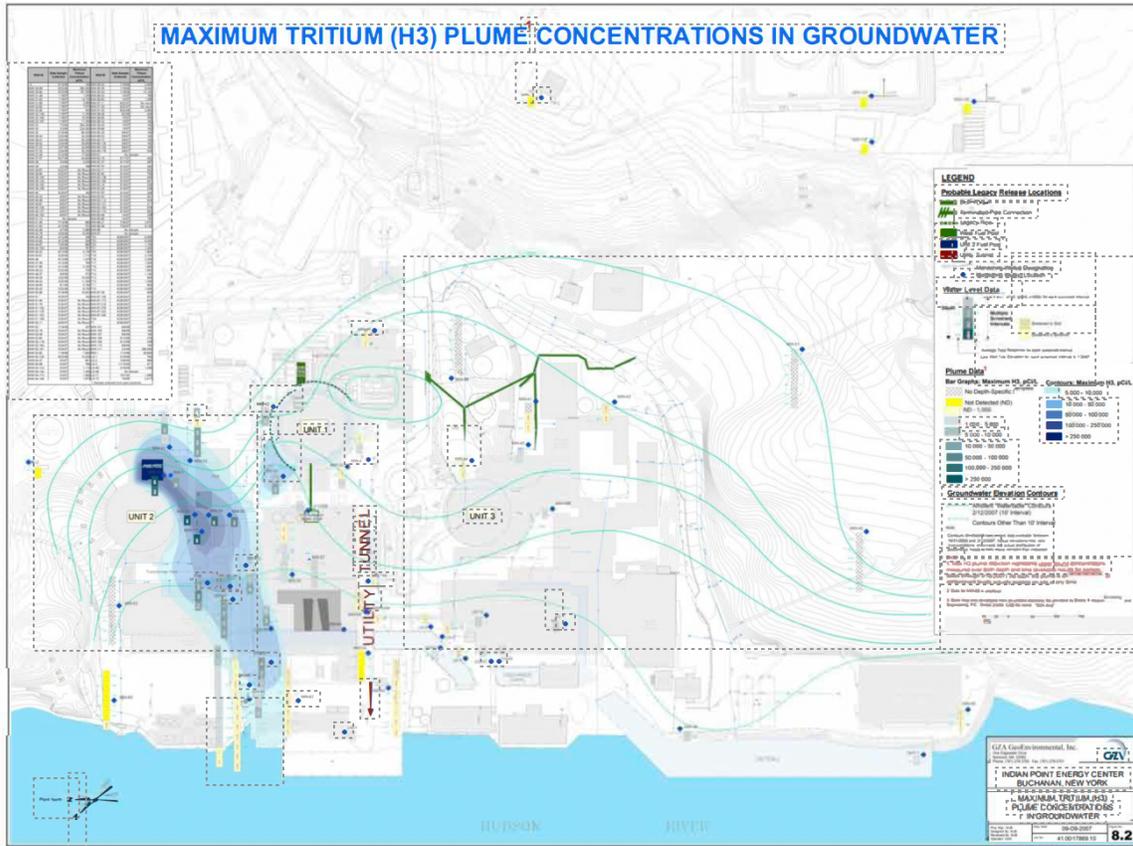
To ensure safe and transparent decommissioning of Indian Point please provide baseline radiation levels and provide continuous, real-time radiation monitoring reports be provide to elected officials and the reactor community.

The NRC cannot kick the nuclear waste can down the road any longer The road has ended – Indian Point is now closed. The NRC no longer has any excuses to not fully disclose, monitor, and clean up the Indian Point site. The NRC must require that PSDAR contain necessary and accurate information, as request in above to comply with minimum NEPA standards.

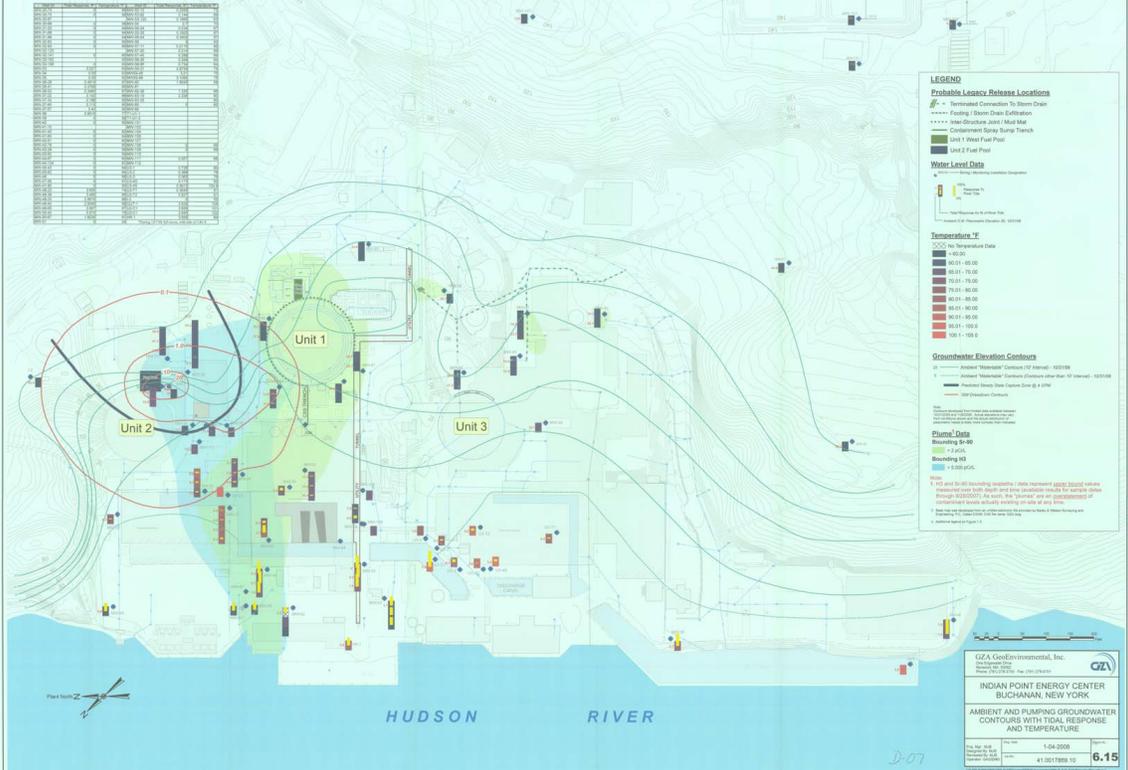
And finally, in a recent telephone conference, the NRC was once again unable to include other people in the call, due to technical difficulties with their conference system. It is truly unacceptable that at the two public hearings and in a private teleconference the NRC has been unable to manage telecommunications, which everyone in the country has used throughout the COVID pandemic. This repeated NRC's incapability has prevented full public participation and is a violation of NEPA – it can no longer be tolerated. This kind of incompetence is reminiscent of the NRC inability to timely install back of power for sirens under Congressional mandate. This repeated failure of adequate communication with the public raises a serious question about the NRC's over-competence to oversee decommissioning. In the future, I ask that the NRC work out all its technical phone and meeting problems before it subjects the public and elected officials to another substandard public hearing.

Sincerely yours,

Susan H. Shapiro



AMBIENT AND PUMPING GROUNDWATER CONTOURS WITH TIDAL RESPONSE AND TEMPERATURE



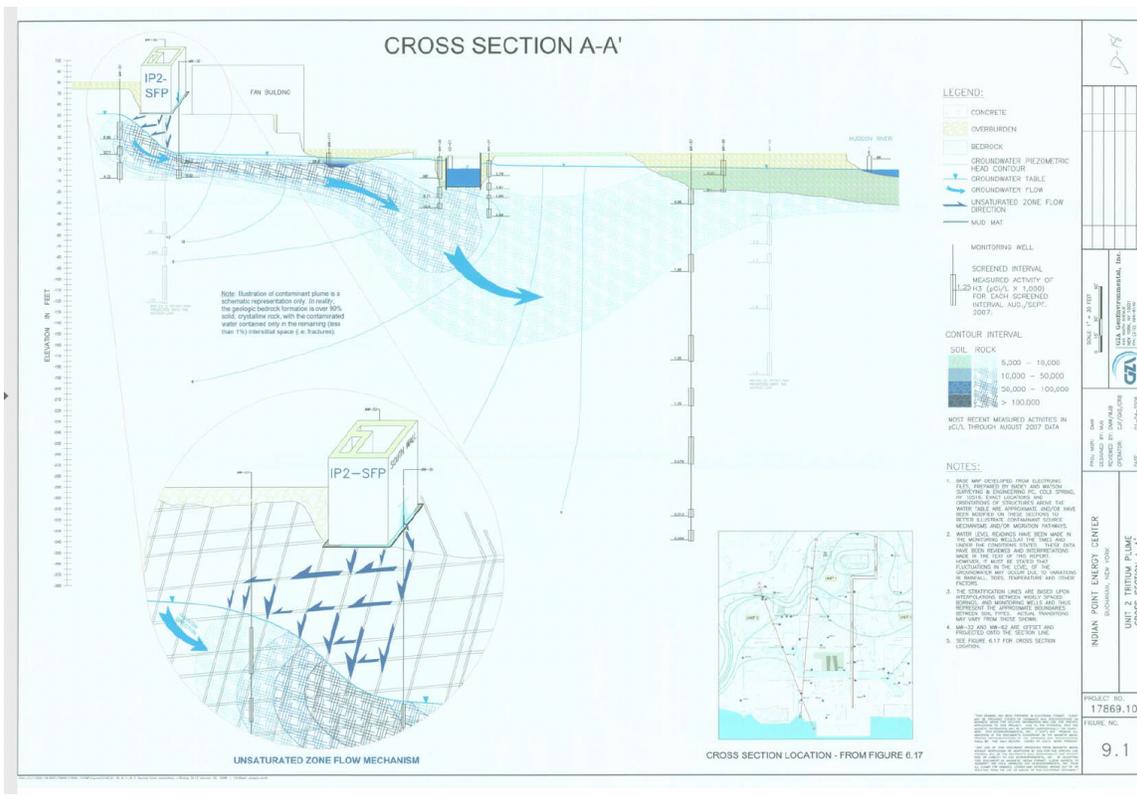
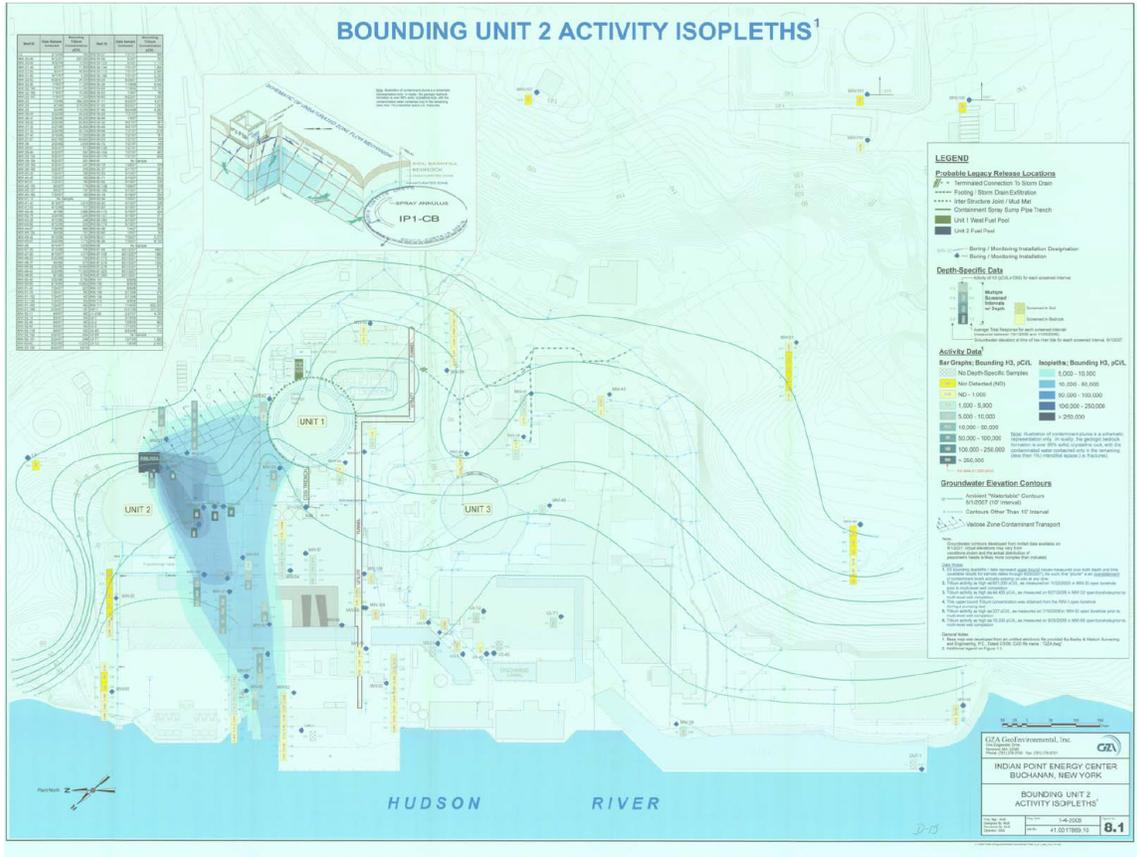
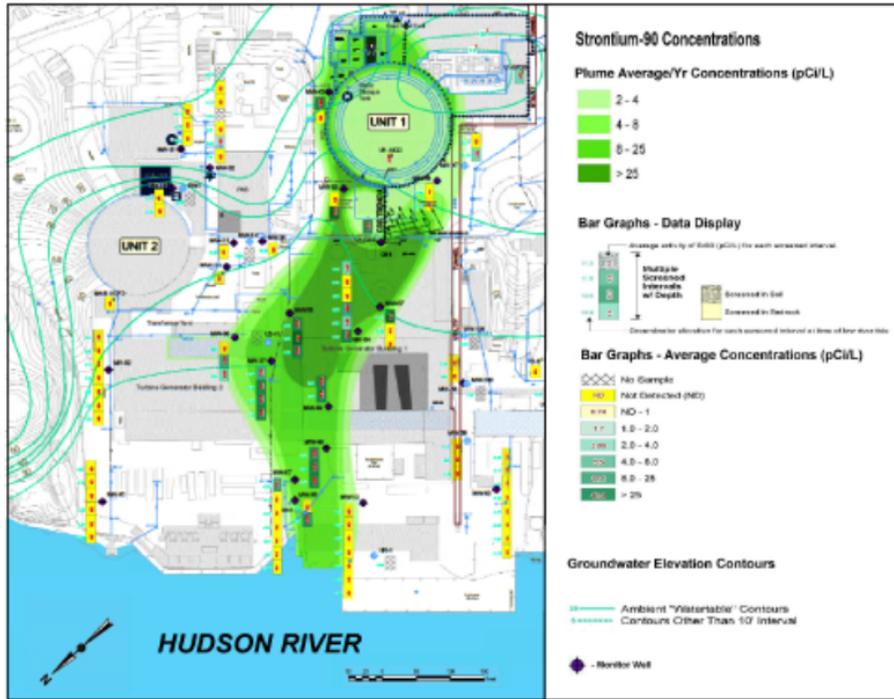
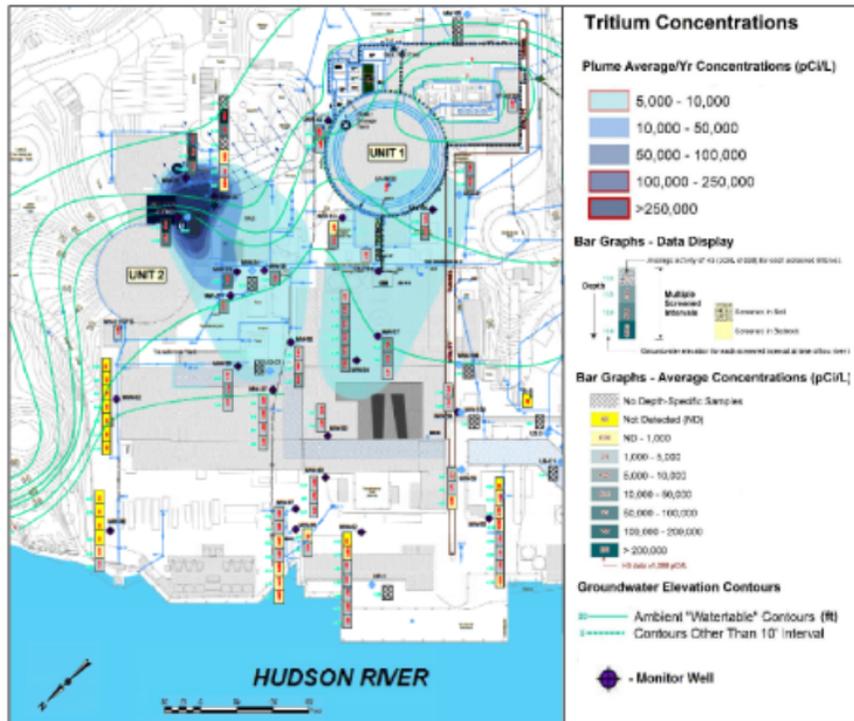


Figure 5-6. Strontium-90 Plume in the 4th Quarter of 2014



Source: Modified from Emery 2015f

Figure 5-5. IP2 and IP1 Tritium Plumes in the 4th Quarter of 2014

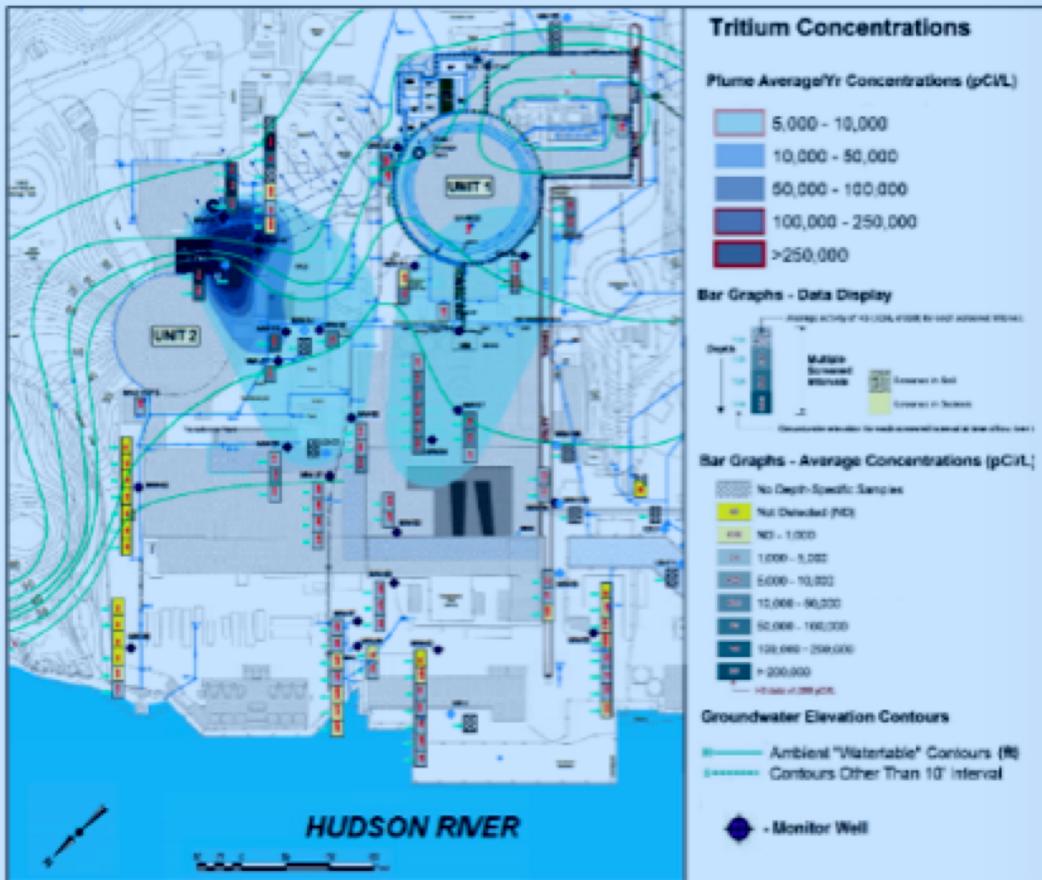


Source: Modified from Emery 2015f

1

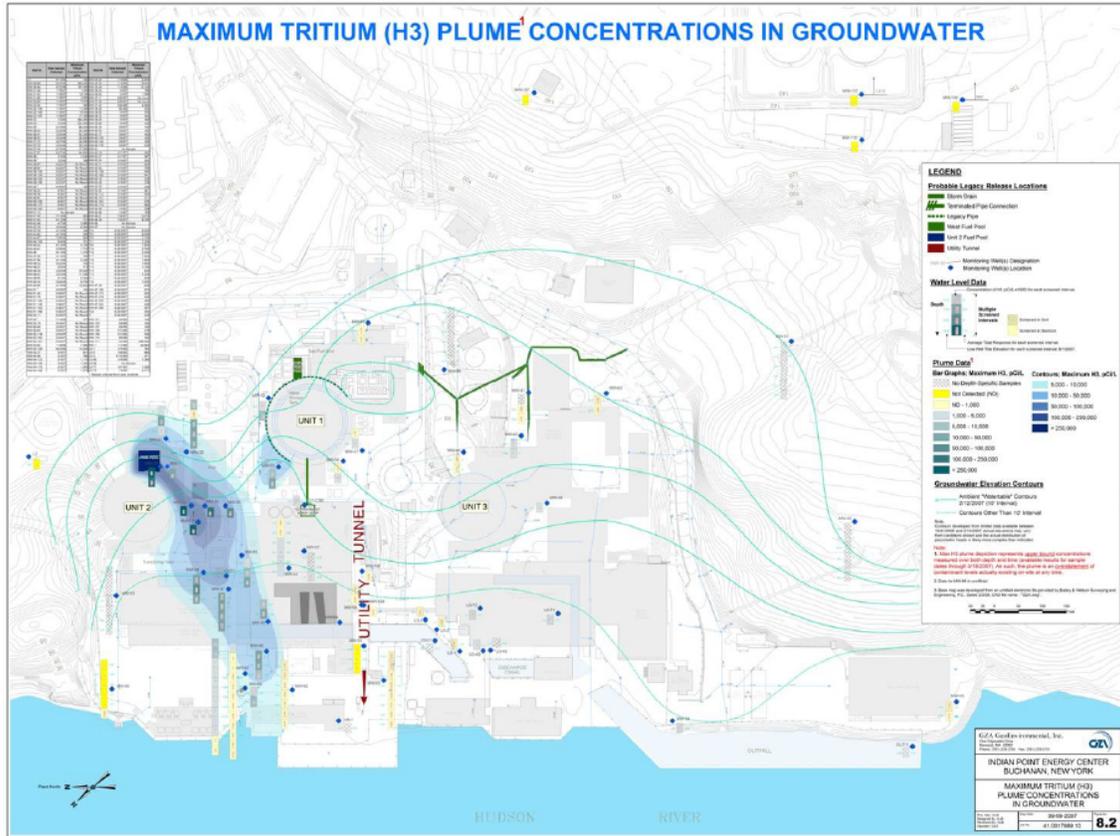
2

Figure 5-3. IP2 and IP1 Tritium Plumes in the 4th Quarter of 2014

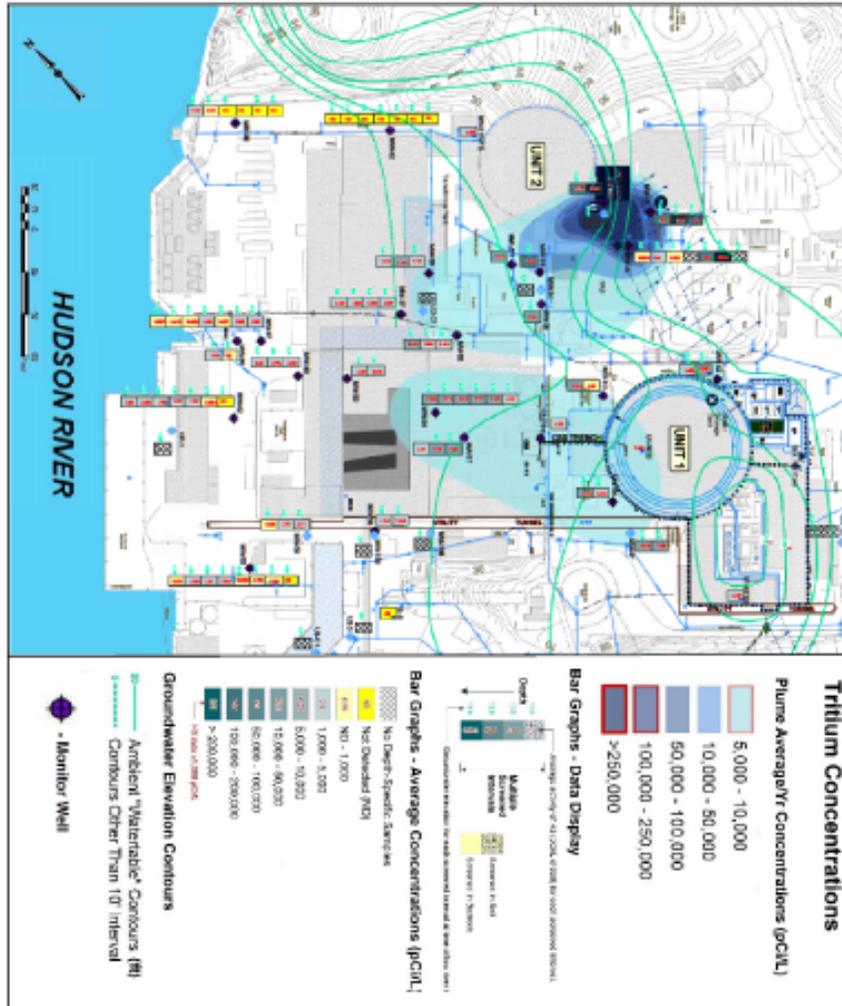


1

2 Source: Modified from Entremv 2015f



1 Figure 5-5. IP2 and IP1 Tritium Plumes in the 4th Quarter of 2014



2 Source: Modified from Entergy 2015f

