



March 25, 2020

Via Email to Hearing.Docket@nrc.gov

Secretary, U.S. Nuclear Regulatory Commission
ATTN: Rulemakings and Adjudications Staff
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Re: Riverkeeper, Inc. comments regarding the Proposed License Transfer of Indian Point Energy Center (Docket Nos. 50-3, 50-247, 50-286, 72-051)

Dear Secretary General:

Riverkeeper, Inc. (“Riverkeeper”) greatly appreciates this opportunity to submit comments to the Nuclear Regulatory Commission (“NRC” or “Commission”) regarding the proposed license transfer of the Indian Point Energy Center (“Indian Point” or IPEC) from Entergy Nuclear Operations, Inc., Entergy Nuclear Indian Point 2, LLC, and Entergy Nuclear Indian Point 3 (collectively “Entergy” or “ENOI”) to three subsidiaries of Holtec International: Holtec Decommissioning International, LLC (“HDI”), Holtec Indian Point 2, and Holtec Indian Point 3 (collectively “Holtec”). Riverkeeper opposes the license transfer and strongly urges the NRC to reject the proposed transfer because Holtec is not fit to be a licensee due to its financial qualifications and character, as shown by its wholly inadequate Post Shutdown Decommissioning Activities Report (“PSDAR”) attached as a supplement to the license transfer application, and by numerous instances in its past conduct. In addition, Riverkeeper asks the NRC to reject HDI’s PSDAR because it is inadequate in many respects, including failure to even

mention a high pressure gas pipeline that run through the Indian Point site, the huge uncertainty in the cost estimates, and failure to analyze the need for remediation of the contaminated groundwater under the site.

Riverkeeper is a member supported 501(c)(3) non-profit organization whose mission includes safeguarding the environmental, recreational and commercial integrity of the Hudson River and its ecosystem, as well as the watersheds that provide New York City with its drinking water. Riverkeeper has been engaged in various forms of advocacy around Indian Point for decades, and is a party to the 2017 Indian Point Closure Agreement with Entergy and the State of New York.¹ Riverkeeper has also submitted a Request for a Hearing and Leave to Intervene in the instant license transfer proceeding on February 12, 2020 pursuant to 10 C.F.R. § 2.309(f) and the hearing notice published by the U.S. Nuclear Regulatory Commission (“NRC”) at 85 Fed. Reg. 3,947 (Jan. 23, 2020).² Riverkeeper incorporates by reference all statements and allegation made within its February 12th Request for a Hearing into the instant comments as well as those made in Requests for Hearings by the State of New York and the Town of Cortlandt.

Background

In late 2019, Entergy applied to the NRC for a license amendment approving the transfer the licenses for Indian Point Units 1, 2, and 3 to Holtec.³ Entergy also seeks to transfer the general license for the Independent Spent Fuel Storage Installation (“ISFSI”) located on the site

¹ Agreement between Entergy, New York State, and Riverkeeper, re: Indian Point License Renewal and Closure (Jan. 9, 2017) (ADAMS Accession No. ML17068A245).

² Petition of Riverkeeper, Inc. to Intervene and for a Hearing (Feb. 12, 2020) (ADAMS Accession No. ML20043F530) (“Riverkeeper Contention”).

³ Letter from A. Christopher Bakken III, Entergy, to U.S. NRC, re: Application for Order Consenting to Transfers of Control of Licenses and Approving Conforming License Amendments, etc., (Nov. 21, 2019) (ADAMS Accession No. ML19326B953) (“License Transfer Application”).

to Holtec. Finally, Entergy seeks to transfer its authority to conduct licensed activities at Indian Point to HDI.

Thereafter, HDI submitted a Post Shutdown Decommissioning Activities Report for Indian Point.⁴ (“PSDAR”) As noted by the NRC, Section 50.82(a)(4)(i) of Title 10 of the *Code of Federal Regulations* requires that the licensee submit the PSDAR prior to or within 2 years following permanent cessation of operations.⁵ Thus, the NRC “is treating the HDI PSDAR submittal as a supplement to the IPEC license transfer application . . . , until such time as the NRC makes a regulatory decision regarding the IPEC license transfer application,” unequivocally making the PSDAR part of this license transfer application.⁶ Although the NRC does not approve the PSDAR,⁷ the NRC should consider the PSDAR in its assessment of the proposed transfer in so far as it is relevant to Holtec and HDI’s fitness to hold license and is part of the application materials.

**HDI’s PSDAR is Wholly Inadequate and Shows that Holtec is
Unfit to Hold IPEC’s License**

As described below, the PSDAR submitted by HDI fails in all respects to meet any of the primary purposes of PSDARs as set forth by the NRC in Regulatory Guide 1.185.⁸ This not only shows that the substance of the PSDAR is lacking, but also casts serious doubts on HDI’s ability to manage the full decommissioning process when it has demonstrated minimal effort in this

⁴ Letter from Andrea L. Sterdis, HDI, to U.S. NRC, re: Post Shutdown Decommissioning Activities Report including Site-Specific Decommissioning Cost Estimate for Indian Point Nuclear Generating Units 1, 2, and 3, (Dec. 19, 2019) (ADAMS Accession No. ML19354A698), *see* 85 Fed. Reg. at 3,948 (“PSDAR”).

⁵ Letter from Richard V. Guzman, NRC to Andrea L. Sterdis, HDI, re: Indian Point Nuclear Generating Unit Nos. 1, 2, And 3 – Holtec Proposed Post-Shutdown Decommissioning Activities Report With Site-Specific Decommissioning Cost Estimate, (Feb. 10, 2020) (ADAMS Accession No. ML20026A002).

⁶ *Id.*

⁷ *Decommissioning Process*, US NRC (last updated Oct. 23, 2019) <https://www.nrc.gov/waste/decommissioning/process.html>.

⁸ NRC, Standard Format and Content for Post-Shutdown Decommissioning Activities Report, Regulatory Guide 1.185 (Dec. 2012) (ADAMS Accession No. ML13140A038) (“Regulatory Guide 1.185”).

preliminary planning stage. The Commission is required to determine that “the transferee is qualified to be the holder of the license,” under 10 C.F.R. § 50.58(c), and has recognized that “the character of a proposed licensee is an appropriate issue” in transfer proceedings.⁹

The purposes of the PSDAR are to:

- (1) inform the public of the licensee’s planned decommissioning activities,
- (2) assist in the scheduling of NRC resources necessary for the appropriate oversight activities,
- (3) ensure that the licensee has considered all the costs of the planned decommissioning activities and has considered the funding for the decommissioning process, and
- (4) ensure that the environmental impacts of the planned decommissioning activities are bounded by those considered in existing environmental impact statements.¹⁰

However, HDI’s PSDAR fails to fulfill any of these purposes due to the lack of critical information and vagueness of the report, along with serious procedural failings. Therefore, the Commission should find that HDI and Holtec are not fit to hold the Indian Point licenses and also reject this inadequate PSDAR.

PSDAR Deprives NRC of Information It Requires and the Public of Information It Needs

The PSDAR is intended to be an overview of decommissioning activities that informs the NRC and the public of both the activities and the schedule:

The purpose of the PSDAR is to provide the NRC and the public with a general overview of the licensee’s proposed decommissioning activities and to inform the NRC staff of the licensee’s expected activities and schedule so that the staff can plan for inspections and make decisions about its oversight activities. The PSDAR is also a mechanism that informs the public

⁹ *Georgia Power Co. et al.* (Vogle Elec. Generating Plant, Units 1 & 2), CLI-93-16, 38 N.R.C. 25, 30 (1993) (citing 10 C.F.R. § 50.80(c), 42 U.S.C. § 2232).

¹⁰ Regulatory Guide 1.185 at 5.

of the proposed decommissioning activities before the conduct of those activities.¹¹

The NRC elaborated on how it requires the PSDAR to identify site-specific issues that would require greater oversight:

The licensee should describe activities that are unique to the facility and that would thus require additional NRC staff oversight in greater detail than for routine activities. For example, a chemical decontamination of a slightly radioactively contaminated system using a mild acid would need only a short description of the process. However, to allow the staff to determine the proper level of oversight, the NRC expects that the use of a unique chemical decontamination method on a system containing large amounts of contamination (e.g., the primary system) would result in a more detailed description of the process.¹²

Federal regulations require licensees to notify the NRC before any significant changes to the decommissioning process or of an increase in the estimated cost of decommissioning:

10 CFR 50.82(a)(7) requires the licensee to notify the NRC, in writing with a copy to the affected States, before it performs any significant decommissioning activity that could be considered inconsistent with, or a significant schedule change from, the planned decommissioning activities or schedules described in the PSDAR. ... As with an initial PSDAR submittal, the licensee should submit the supplement to the NRC with the planned PSDAR change and should send a copy to the affected States. The regulation also requires the licensee to notify the NRC of changes that significantly increase the decommissioning costs and to send a copy to the affected States.¹³

The PSDAR is required to contain sufficient detail to enable the NRC to plan and conduct proper oversight activities. The PSDAR is implicitly required to contain sufficient detail to enable workers to determine when an upcoming task is inconsistent with it in order to determine

¹¹ *Id.* at 3.

¹² *Id.* at 6.

¹³ *Id.* at 10.

whether a prior notification to the NRC and State is needed. As described below, this PSDAR failed to contain sufficient information to meet these requirements.

PSDAR Fails to Provide the Required Public Notifications

According to the NRC, the “PSDAR is also a mechanism that informs the public of the proposed decommissioning activities before the conduct of those activities.”¹⁴ This PSDAR failed to satisfy this objective. For example, Section 5.1.16 of the PSDAR stated:

Some decommissioning activities may result in higher than normal onsite noise levels (i.e., some types of demolition activities.) However, these noise levels would be temporary and are not expected to present an audible intrusion on the surrounding community.¹⁵

The PSDAR failed to identify or characterize the activities that may involve higher than normal noise or their schedule. The PSDAR also failed to specify the noise level above which would present an audible intrusion on the community.

This incompleteness unfairly precludes public engagement. If the PSDAR contained this information, citizens and local officials could ascertain whether the projected noise levels constituted mere annoyances or represented undue alarm warranting mitigation by measures such as advance warnings to the community and/or not performing the activities in the dark of night. By failing to identify the sources and timing of anticipated loud noises, the incomplete PSDAR unfairly silences the public.

In addition, the PSDAR failed to explain how the federal regulation requiring annual reporting of radioactive emissions from Indian Point will be met. 10 CFR 50.36a requires annual reports to the NRC of all radioactivity released to the water, discharged to the air, or transported

¹⁴ *Id.* at 3.

¹⁵ NRC, Guidance for Implementation of 10 CFR 50.59, ‘Changes, Tests and Experiments,’ Regulatory Guide 1.187, Rev. 1, (May 2019) (ADAMS Accession No. ML17195A655).

offsite in solid form. The NRC makes these annual reports publicly available, both in its online digital library and in postings to its website.¹⁶

The NRC staff determined that 10 CFR 50.36a remains applicable throughout decommissioning:¹⁷

<i>Citation:</i>	§50.36a, Technical specifications on effluents from nuclear power reactors
<i>Retrieval Keyword Phrase:</i>	each licensee of a nuclear power reactor
<i>Background:</i>	The requirements of this section address the technical specifications required for each licensee of a nuclear power reactor to minimize the release of radionuclides to unrestricted areas.
<i>Applicability Analysis:</i>	These requirements, which are applicable to all licensees, ensure compliance with the provisions of §20.1301, which provides dose limits for individuals applicable to all licensees. As stated in §50.36(a)(1), each licensee is also required to develop operating procedures for the control of effluents. These procedures shall remain in effect as a record until the license is terminated by the NRC. In addition, each licensee, in accordance with §50.36(a)(2), shall submit an annual report which specifies the quantities of each radionuclide released (as a gas or liquid) to unrestricted areas. The direct applicability of these regulations can also be seen from the response to comments for the 1996 decommissioning rulemaking (61FR39283), where the NRC states that the final rule explicitly extends certain technical requirements to cover decommissioning activities (e.g., Sections 50.36, 50.36a, 50.36b, and Appendix I regarding technical specifications for surveillance requirements, administrative controls, control of effluents, and conditions to protect the environment).
<i>Applicability Binning:</i>	Regulations are directly applicable to decommissioning nuclear power plants.

Entergy applied to the NRC for permission to revise the reporting requirements for Indian Point Units 2 and 3 once all irradiated fuel has been removed from their reactor vessels. The requested changes included the annual radiation reporting requirements. But Entergy did not request the NRC’s permission to eliminate the annual reporting; rather, Entergy sought permission to consolidate the reporting:¹⁸

¹⁶ Links to the annual reports since 2005 for Indian Point Units 2 and 3 are available at: <https://www.nrc.gov/reactors/operating/ops-experience/tritium/plant-specific-reports/ip2-3.html>.

¹⁷ Huffman, William C., Jr., Nuclear Regulatory Commission, “Transmittal of Report on Determination of Applicability of Title 10 of the Code of Federal Regulatory to Decommissioning Nuclear Power Plants,” 46 (July 7, 2000) (ADAMS Accession No. ML003730203).

¹⁸ Halter, Mandy K., Entergy Nuclear Operations, Inc., “Proposed Technical Specifications Change – Administrative Controls for Permanently Defueled Condition,” (Apr. 15, 2019) (ADAMS Accession No. ML19105B236).

<u>Current TS 5.6.3 – Radioactive Effluent Release Report</u>	<u>Proposed TS 5.6.3 – Radioactive Effluent Release Report</u>
<p>Note: A single submittal may be made for a multiple unit station. The submittal shall combine sections common to all units at the station; however, for units with separate radwaste systems, the submittal shall specify the releases of radioactive material from each unit.</p>	<p>Note: A single submittal may be made for a multiple unit/facility station. The submittal shall combine sections common to all units/facilities at the station; however, for units/facilities with separate radwaste systems, the submittal shall specify the releases of radioactive material from each unit/facility.</p>
<p>...The Radioactive Effluent Release Report covering the operation of the unit shall be submitted in accordance with 10 CFR 50.36a by May 15th of each year...</p>	<p>...The Radioactive Effluent Release Report covering the operation of the facility shall be submitted in accordance with 10 CFR 50.36a by May 15th of each year...</p>

Chapter 11 of the Updated Final Safety Analysis Report (UFSAR) for Indian Point Unit 2 explicitly stated the requirement that radioactively contaminated liquids and gases released from the site shall be controlled:

The facility design shall include those means necessary to maintain control over the plant radioactive effluents whether gaseous, liquid, or solid.¹⁹

and

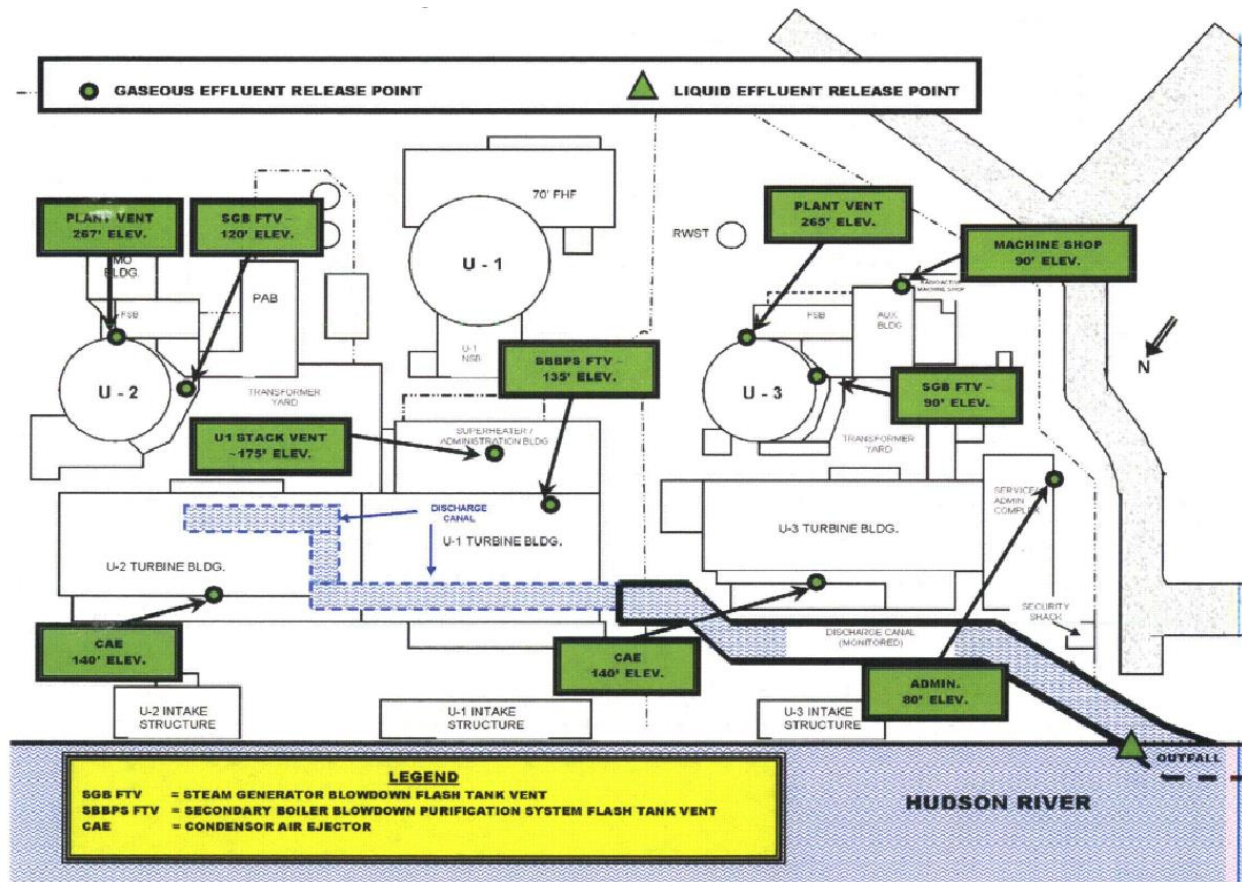
Means shall be provided for monitoring the containment atmosphere and the facility effluent discharge paths for radioactivity released from normal operations, from anticipated transients, and from accident conditions. An environmental monitoring program shall be maintained to confirm that radioactivity releases to the environs of the plant have not been excessive.²⁰

To populate the required annual reports, liquids and gases released from the plant must flow through controlled and monitored pathways to enable the amounts of radioactivity being

¹⁹ Entergy, *Waste Disposal and Radiation Protection System*, Indian Point Unit 2 Updated Final Safety Analysis Report Chapter 11, Revision 25, 1 (2014) (ADAMS Accession No. ML14287A355).

²⁰ *Id.* at 15.

discharged to be tallied. The monitored points for controlled releases of radioactive liquids and gases from Indian Point are shown in the following graphic:²¹



The annual reports list the amount of radioactivity leaving the site via these controlled and monitored pathways and compare the amounts to the applicable federal limits. The reports also describe times when circumstances required a departure from the prescribed monitoring methods. For example, if a radiation detector continuously monitoring the flow through a ventilation exhaust duct failed, the report might explain how periodic grab samples were taken and analyzed as a substitute until the detector returned to service.

²¹ Entergy Nuclear Northeast, "Offsite Dose Calculation Manual (ODCM)," Rev. 4, D 4.1-3 (Oct. 4, 2012) (ADAMS Accession No. ML13157A133).

The PSDAR failed to state how radiation monitoring will be conducted during decommissioning so as to enable the annual reports to continue faithfully indicating ALL radioactivity released to the air and water. Presumably, many of the decommissioning tasks can and will be performed such that the pre-existing radiation monitoring systems will continue to enable that function at least for some time, but the PSDAR fails to discuss this issue.

Before the completion of decommissioning, pre-existing radiation monitoring systems become disabled. For example, many buildings use ventilation systems that draw in clean, outside air and exhaust potentially contaminated air through ducts that pass radiation detectors to monitor their contents. The ventilation system fans are sized to account for some in-leakage (i.e., doors periodically opened for access, leakage through penetrations allowing piping to pass through walls, etc.). But as the following picture of the containment building at Maine Yankee strongly suggests, at some point during decommissioning, the pre-existing radiation monitoring in building ventilation systems will be disabled.²²

²² Aker, R., New Horizon Scientific, LLC, "Maine Yankee Decommissioning Experience Report – Detailed Experiences 1997-2004," Figure 7-10 (Mar. 28, 2012) (ADAMS Accession No. ML12338A389).



The PSDAR failed to describe how all radioactively contaminated water reaching the Hudson River and all radioactive gaseous effluents released into the air will be monitored such that the annual reports submitted per 10 CFR 50.36a contain complete and accurate information.

Considerable public interest in the mid-2000s about massive leaks and spills from the Braidwood nuclear plant and several other plants prompted the NRC to undertake efforts to post the annual radiation effluent and environmental reports for every nuclear plant on its website. That interest may have faded since those days of numerous leaks and spills here, there, and seemingly everywhere. The interest level remains high at several sites like Indian Point. The PSDAR must describe how releases of radioactively contaminated liquids and gases to the environment will be controlled, monitored, and accounted for in order to comply with federal and state regulatory requirements and satisfy the public's appetite for information.

The Vagueness of the PSDAR Makes NRC Oversight Ineffective and Inefficient

The NRC uses the PSDAR to plan and conduct its oversight during decommissioning. The NRC explicitly conveyed its expectation that the PSDAR will “describe activities that are unique to the facility that would require additional NRC staff oversight.”²³ The PSDAR fails to meet this NRC expectation and requirement.

For example, Section 5.1.8.2, Public Dose, of the PSDAR discussed the underground plumes of radioactively contaminated water leaked from the Indian Point Unit 1 and Unit 2 spent fuel pools as the Long-Term Monitoring Program (LTMP) developed to manage that potential hazard. The PSDAR stated that the LTMP will be continued.²⁴

The LTMP was developed following “. . . a two-year comprehensive hydrogeologic site investigation of the Indian Point Energy Center (Site).”²⁵ The PSDAR failed to explain why the proposed decommissioning activities will not invalidate the conclusions and bases of the hydrogeologic site investigation and the LTMP derived from it. In addition, the PSDAR failed to note that there was a spill of tritium in 2016.²⁶ The latest groundwater report states that since then Entergy has installed a recovery well and has modified this monitoring plan.²⁷ Once again this is not mentioned in the PSDAR.

The LTMP monitors the groundwater at the site for movement of the underground plumes of radioactively contaminated water:

Long term groundwater monitoring is ongoing; a network of multi-level groundwater monitoring installations has been established at

²³ Regulatory Guide 1.185 at 6.

²⁴ PSDAR at 30.

²⁵ Winslow, David M., et al., “Hydrogeologic Site Investigation Report Indian Point Energy Center,” viii (Jan. 7, 2008) (ADAMS Accession No. ML080320540).

²⁶ See Indian Point Groundwater Contamination, US NRC (last updated Aug. 12, 2019), <https://www.nrc.gov/info-finder/reactors/ip/ip-groundwater-leakage.html>.

²⁷ GZA Inc., IPEC Long Term Groundwater Monitoring Report, 2-5 (December 19, 2019), <http://www.safesecurevital.com/pdf/19-12-19.pdf>.

the facility. These “wells” are located downgradient of, and in close proximity to, both existing and potential release locations.²⁸

The groundwater monitoring realization is “. . . that contaminant concentrations will fluctuate over time due to natural variations in groundwater recharge and that a potential future short term increase in concentrations does not, in and of itself, indicate a new leak.”²⁹

Fluctuating concentrations in monitoring wells was explained to be caused by groundwater recharge:

Groundwater recharge at and near the Site is limited to precipitation. That is, there is no significant artificial recharge or irrigation in the area. Precipitation in the vicinity of the Site is approximately 36 inches per year. Recognizing that a portion of precipitation is lost to evaporation, transpiration, and run-off, direct recharge to an aquifer was estimated. Large scale modeling performed by the USGS for Westchester County, NY, suggests that groundwater recharge to glacial till-covered bedrock hills, typical of the conditions near Indian Point, ranges from 3.6 to 7.5 inches per year with an average of 5.5 inches per year. Our experience in a similar hydrogeologic setting found higher natural recharge rates, averaging approximately 10 inches per year. Considering all available information, we believe recharge at the Site is between 1/10 and 1/3 of precipitation. Based on our evaluation, we estimate recharge on and up-gradient of the Site is approximately 10 inches/year.³⁰

The PSDAR stated that “above-ground structures will be removed to a nominal depth of three (3) feet below the surrounding grade level.”³¹ The PSDAR stated that the parking lots will be removed.³² As structures are demolished, parking lots removed, and storm drains excavated, the hydrogeology of the site will change. Additionally, portions of the site may be landscaped to provide locations for storing and packaging materials for transport offsite and/or to provide

²⁸ *Id.* at ix.

²⁹ *Id.* at x.

³⁰ *Id.* at 47-48.

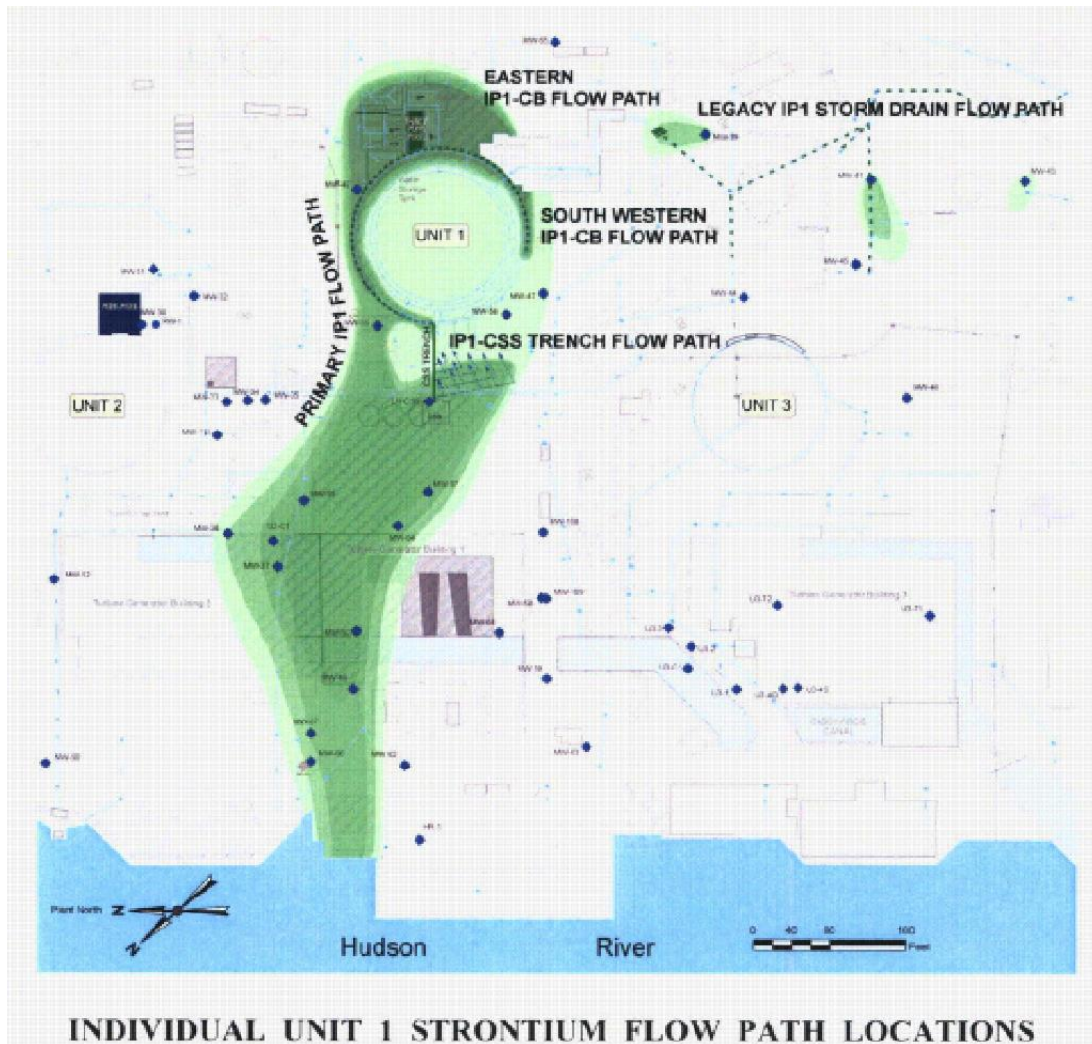
³¹ PSDAR at 13.

³² PSDAR at 63.

easier access routes. All of these changes could invalidate the assumptions upon which the LTMP rely. The PSDAR assumed that the existing LTMP as-is would continue to function adequately throughout decommissioning without justifying why activities could not undermine its effectiveness.

The PSDAR stated that: “Fugitive dust emissions will be controlled through the judicious use of water spraying.”³³ The beneficial uses of water spraying may be properly managed by the existing State Pollutant Discharge Elimination System permit as suggested by the PSDAR. But any water not carried away by existing storm drains that soaks into the soil essentially adds to the rainfall amounts and increases the groundwater recharge rate. Water that is not discharged through existing drainage paths can invalidate the prior hydrogeological conclusions. The PSDAR failed to describe how water use and rainwater control throughout the decommissioning activities will not invalidate the LTMP.

³³ PSDAR at 24.



INDIVIDUAL UNIT 1 STRONTIUM FLOW PATH LOCATIONS

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The monitoring well locations (represented by blue dots in the figure) and the depths of sensors installed in the locations relied on the existing hydrogeological conditions and the assumption of a groundwater recharge rate of 10 inches per year. If decommissioning activities alter the onsite groundwater flow paths or increase the recharge rate, the LTMP may be adversely affected. The report on the hydrogeological evaluation report expressed the limitation of its assessment:

The current groundwater well and footing drain monitoring network is consistent with the objectives of the NEI [Nuclear Energy Institute] Groundwater Protection Initiative. Wells have

³⁴ Winslow, *supra* note 23, at 108.

been installed and are currently being monitored to both detect and characterize current and potential future groundwater contaminant migration to the river, as well as, in concert with specific footing drain monitoring, provide earlier detection of potential future leaks associated with the existing infrastructure.³⁵

That rainfall affects the flow of radioactively contaminated water to the Hudson River is crystal clear from Entergy's annual effluent report to the NRC for 2018:

The 2018 effluent dose was approximately a factor of 2 higher than in 2017. This was primarily due to the increase in recorded rain in the area.³⁶

Increasing the amount of rainfall doubled the radiation dose to the public from radioactively contaminated water leaving the Indian Point site. Altering the site's landscape to increase the amount of rainfall soaking into the soil to join and accelerate the flow rate of the underground plume rather than have that rainwater flow harmlessly through storm drains to the river can also increase the public's radiation dose. Researchers at the Pacific Northwest National Laboratory stated in a report on hydrogeology during decommissioning:

For buried contaminants, this means the primary pathway of concern was that involving infiltration of water at the ground surface, leaching of contaminants, and transport through the subsurface to a point of exposure.³⁷

Fortunately, past problems resulting in buried contaminants at Indian Point also produced a greater understanding of the hydrogeological conditions at the site. That understanding relied on assumptions and conditions that are unlikely to remain valid throughout decommissioning. The PSDAR failed to explain how the various decommissioning activities planned will not invalidate the LTMP. Thus, the NRC could be forced into the position of having to assess

³⁵ *Id.* at 132 (emphasis added).

³⁶ Vitale, Anthony J., Entergy Nuclear Northeast, 2018 Annual Radioactive Effluent Release Report 11 (Apr. 23, 2019) (ADAMS Accession No. ML19122A390).

³⁷ Meyer, P. D. and Taira, R. Y., Hydrologic Uncertainty Assessment for Decommissioning Sites: Hypothetical Test Case Applications 1, NUREG/CR-6695 (Jan. 2001) (ADAMS Accession No. ML010670139).

whether upcoming tasks will, or will not, compromise the LTMP's validity. Conversely, HDI may view 10 CFR 50.82(a)(7) very strictly and notify the NRC of each and every pending task potentially affecting groundwater flow at the site. The former challenges the NRC's effectiveness; the latter challenges the NRC's efficiency. Neither of these potential consequences would be faced if the PSDAR merely complied with regulatory requirements.

On a related issue, the PSDAR relies on the 2018 SEIS for Indian Point to attempt to show that groundwater impacts are bounded by existing impact statements. PSDAR at 38. However, that impact statement actually only assesses impacts during plant operations and states "Any remaining groundwater restoration will be addressed after plant operations have ceased."³⁸ Furthermore, the SEIS did not discuss the changes in the hydrology that would result from the decommissioning of the site. Therefore, the PSDAR failed to show that groundwater impacts are bounded by existing impact statements.

Another example of the PSDAR's failure to provide the NRC with the information required involves the steam generators. The NRC was explicit about the information required to be covered in the PSDAR:

For prompt decontamination and dismantlement, the licensee should describe activities, such as the following:

- a. Removing the reactor vessel and internals;
- b. Removing other large components, including major radioactive components; ...³⁹

The steam generators are "other large components." The PSDAR described for the NRC how these large components in a single sentence:

³⁸ NRC, Final Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Sup. 38, Regarding Indian Point Nuclear Generating Unit Nos. 2 and 3, iv 5-9 to 5-44., Vol. 5, NUREG-1437 (Apr. 2018) (ADAMS Accession No. ML18107A759).

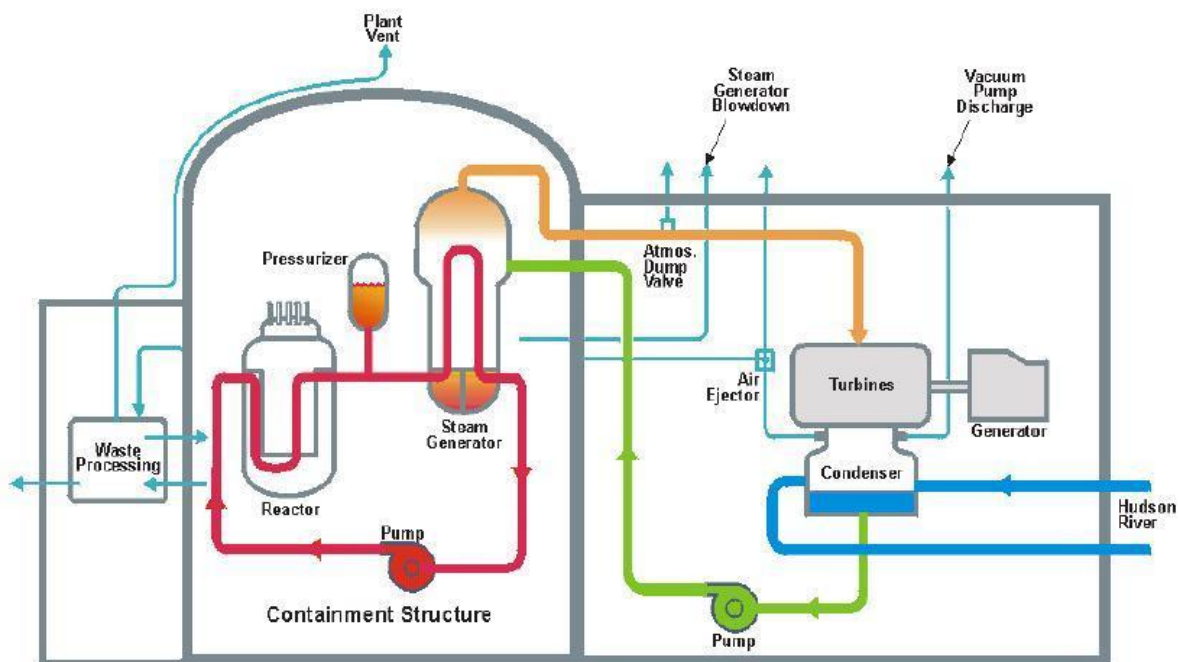
³⁹ Regulatory Guide 1.185 at 6.

For each unit, the primary loop large components, including the steam generator and pressurizers, will be removed from the Reactor Building.⁴⁰

The PSDAR “satisfied” the NRC’s requirement that the removal of other large components be described in the PSDAR by informing the agency that the steam generators would be removed in a single conclusory sentence that provided no information on how this work will be done.

The PSDAR provided a little more detail about the proposed removal of the Unit 2 turbine and condensers when it stated that these components “will be segmented by a specialty subcontractor” applying “appropriate radiological precautions” because of the “IP2 steam generator tube rupture in 2000.”⁴¹

INDIAN POINT 2



⁴⁰ PSDAR at 12.

⁴¹ *Id.* at 62.

The turbine and condenser to be segmented using “appropriate radiological precautions” are shown on the right side of the Indian Point 2 schematic. The main steam pipes (orange line) carry steam from the steam generators housed within the containment structure to the turbine. The condensate and feedwater pipes (green line) recycle water from the condenser back to the steam generators. Called the secondary loop, these pipes and components are normally “clean” radioactively. But, as the PSDAR stated, the rupture of a tube within a steam generator in February 2000 allowed radioactively contaminated water to leak, flash to steam, and get transported to the turbine and condenser and contaminate them radioactively.

If the tube had not failed, the Unit 2 turbine and condenser would presumably not be contaminated with radiation. Yet, whether the tube leaked or not, the radioactively contaminated water (red line) flowing through the Unit 2 steam generators that day — and literally thousands of days before and after that day in February 2000 — would have subjected those steam generators to radioactive contamination. If one leaking tube on one day compels “appropriate radiological precautions” for the Unit 2 turbine and condenser, it seems grossly inappropriate for the Unit 2 (or Unit 3 for that matter) steam generators to be removed without “appropriate radiological precautions.” Yet the PSDAR was silent on the subject, other than to mention the steam generators would be removed. That description provided the NRC with no useful information to properly develop and apply its oversight efforts.

Even though, the PSDAR stated that “appropriate radiological precautions will be taken during the IP2 turbine and condenser segmentation activities,” it was silent about the nature of those radiological precautions.⁴² This failure places a burden on the NRC to determine whether additional oversight is required to ensure that workers and/or the public are not unduly exposed

⁴² *Id.* at 62.

to radiation due to inappropriate radiological precautions. The NRC staff has determined that radiation protection regulations, such as those requiring that doses to workers be kept As Low As Reasonably Achievable apply during decommissioning:⁴³

<i>Citation:</i>	Appendix I to Part 50-Numerical Guides For Design Objectives And Limiting Conditions For Operation To Meet The Criterion "As Low As Is Reasonably Achievable" For Radioactive Material In Light-Water-Cooled Nuclear Power Reactor Effluents
<i>Retrieval Keyword Phrase:</i>	nuclear power reactors
<i>Background:</i>	This Appendix provides guidance on design objectives to meet ALARA requirements.
<i>Applicability Analysis:</i>	As discussed in the applicability analysis for §50.34a and 61 FR39283 (Federal Register notice for the 1996 decommissioning rule), this Appendix ensures that the provisions of ALARA are used to control and minimize the release of radioactive effluents from a decommissioning nuclear plant. These provisions are incorporated into the technical specifications for a decommissioning plant.
<i>Applicability Binning:</i>	Regulations are directly applicable to decommissioning nuclear power plants.

There are numerous ways to protect workers from inhaling radioactive particles or undue exposure to fixed sources during segmentation activities, including the use of HEPA ventilation, as evident from decommissioning at other nuclear plants:

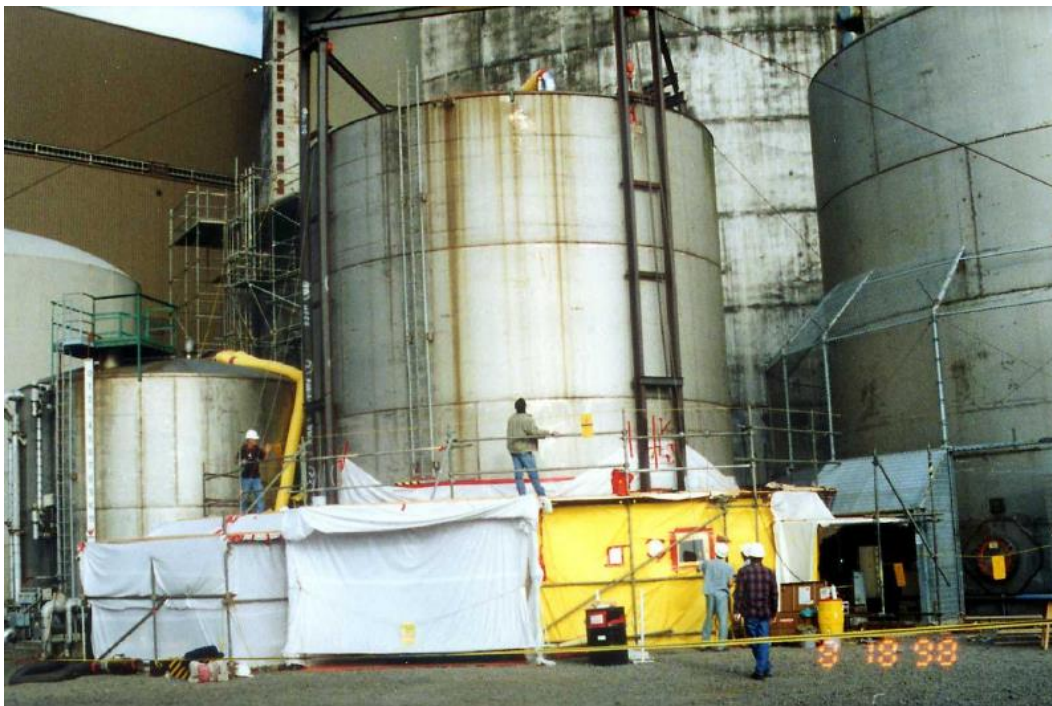
- The internal surface of the boric acid storage tank at the Trojan nuclear plant was painted with a latex paint product to fix any loose radioactive contamination prior to cutting it up with plasma torches. Portable high-efficiency particulate air (HEPA) ventilation units were attached to the manway opening at the top of tank to control radioactive particles “escaping” the paint.⁴⁴
- The boron injection tank at Trojan was cut up using an oxy-propane torch. In addition to painting its interior surface to protect against airborne radioactive particles, workers placed a sheet metal vent hood over the open top of the tank and used portable HEPA ventilation units control air flow.⁴⁵

⁴³ Huffman, *supra* note 16, at 78-79.

⁴⁴ Thomas, R. C., Electric Power Research Institute, Decommissioning Technology Experience Reports 4-5 (Dec. 2000).

⁴⁵ *Id.* at 4-12.

- The removal of the primary water storage tank (PWST) at Trojan, which contained tritium water during reactor operation, was complicated by it being outdoors. Several radiation protection methods were evaluated, including placing a large tent over the entire tank. The selected method installed plastic sheeting around the lower 8-feet of the tank with a series of HEPA ventilation units to maintain the enclosure at a negative pressure. These temporary ventilation units discharged into the Containment Building where existing radiation detectors monitored effluents. As lower sections of the PWST were cut and removed, the remaining portion of the tank was lowered into position.⁴⁶



- Cutting potentially (and actually) radioactively contaminated piping at the Big Rock Point nuclear plant also used temporary ventilation modules with air flow ranges between 3,000 and 3,600 cubic feet per minute. The modules had pre-filters and HEPA filters.⁴⁸

The PSDAR mentioned painting surfaces and capping openings to control contamination:

Access limitations, crane availability, and radiological conditions will drive the technology used for cutting and segmenting

⁴⁶ *Id.* at 4-13, 4-14.

⁴⁷ *Id.* at Fig. 4.8.

⁴⁸ *Id.* at 2-4.

components and piping. Systems and/or components will be breached, air gapped, and purged to eliminate liquid waste prior to segmenting. While many large components are expected to be radiologically contaminated, they are not expected to require pre-dismantling decontamination. Spray fixative will be used on components, or openings of piping will be capped to control contamination. Depending on the contamination levels and configuration of the segmented large components, CDI will either place the segments in an appropriate shipping container or send the component for disposal as its own package with suitable wrapping or capping.⁴⁹

However, HEPA was not mentioned anywhere in the PSDAR. And not only did the PSDAR not state or imply that temporary ventilation would be used to protect workers, it strongly suggested that such measures would NOT be used:

Local ventilation [for dismantling activities within the Radiologically Controlled Area] will be required for most tasks and building ventilation is adequate for these tasks and will not require upgrading or replacement.⁵⁰

The PSDAR failed to identify tasks for which building ventilation was or might be inadequate and failed to specify criteria that would be applied before tasks are conducted. To be sure, decommissioning activities at Indian Point could indeed employ HEPA filters and temporary ventilation systems to protect workers from inhalation of radioactive gases and particles even though such measures are not described in the PSDAR. The absence of descriptions of such appropriate radiological precautions from the PSDAR does not prevent their use. But the absence does prevent the NRC from effective and efficient oversight of decommissioning. Proper PSDAR descriptions would enable NRC inspectors to spot-check whether the described measures are being properly used when applicable. Improper PSDAR descriptions compel the NRC to either inefficiently inspect more activities to verify that workers

⁴⁹ PSDAR at 11.

⁵⁰ *Id.* at 92.

are being protected as required or to ineffectively just assume workers are not receiving undue exposures.

In addition to the potential hazard of radioactive particles being released during component segmentation, decommissioning at the Rancho Seco nuclear plant was complicated by the need to control lead-based paint from piping during cutting. Extensive paint abatement efforts were required to keep from exceeding the Permissible Exposure Limit for lead.⁵¹

A similar challenge was experienced at the Maine Yankee nuclear plant involving asbestos. The decommissioning cost estimate assumed that 16,000 cubic feet of asbestos would require remediation. But approximately 28,500 cubic feet of asbestos needed remediation. Further complicating the challenge of handling asbestos was that about one-third of it was radioactively contaminated and required disposal in a licensed low-level waste site.⁵²

The PSDAR merely stated that “appropriate radiological precautions” would be taken at Indian Point. The PSDAR failed to identify methods that might be appropriately utilized or even specify the criteria that would be used to ascertain appropriateness of a proposed precaution. Consequently, perhaps the only indicator of an inappropriate precaution would be when workers receive excessive radiation exposures. That type of revelation can and should be avoided by foresight — the PSDAR must replace vague language with adequate descriptions allowing workers, the NRC, and the public to obtain confidence that the decommissioning activities will be appropriately protective.

One of the recommendations from the lessons learned evaluation of decommissioning at the Maine Yankee nuclear plant was to “Have sufficient contract provisions that in the event of

⁵¹ Thomas, *supra* note 39, at 4-20.

⁵² Aker, *supra* note 21, at 3-4.

major contractor problems that provides the owner with options to effectively and safely continue the project.”⁵³ This lesson is applicable to NRC’s oversight of decommissioning at Indian Point. The NRC uses the PSDAR to inform its decision-making when allocating limited oversight resources. In addition, the NRC relies on the regulatory requirement 10 CFR 50.82(a)(7) to be notified of proposed changes to decommissioning activities described in the PSDAR in order to make applicable changes to its oversight plans when necessary. The PSDAR must contain adequate descriptions (analogous to a decommissioning contract having sufficient provisions)⁵⁴ to provide the NRC with options for effectively overseeing the safety of decommissioning at Indian Point. Because it is so vague, this PSDAR failed to meet that requirement.

Illustrating that this provision is seldom adhered to, the NRC’s online public library (i.e., ADAMS) was searched for records submitted to the NRC over the past decade per 10 CFR 50.82(a)(7). The hits returned for this search was a short list:

- DEF [Duke Energy Florida] submitted a Post Shutdown Decommissioning Activities Report in accordance with 10 CFR 50.82, “Termination of license,” paragraph (a)(4)(i) (“2013 PSDAR”). This letter is provided to notify the NRC of a significant schedule change to the 2013 PSDAR in accordance with 10 CFR 50.82, “Termination of license,” paragraph (a)(7), by which we intend to accelerate the decommissioning schedule if the Application for license transfers is approved.⁵⁵
- Pursuant to the requirements of 10 CFR 50.82(a)(7) Maine Yankee Atomic Power Company (Maine Yankee) provides Revision 3 to the

⁵³ *Id.* at 4-1.

⁵⁴ A key difference is that federal regulations require that the PSDAR contain sufficient detail for the NRC’s oversight efforts whereas only prudent business practices dictate that contracts have the provision.

⁵⁵ State, Scott E., Notification of Revised Post-Shutdown Decommissioning Activities Report (Revised PSDAR) 1, (June 26, 2019) (ADAMS Accession No. ML19177A080).

Maine Yankee Post-Shutdown Decommissioning Activities Report (PSDAR).⁵⁶

- Pursuant to the requirements of 10 CFR 50.82(a)(7) Maine Yankee Atomic Power Company provides Revision 2 to the Maine Yankee Atomic Power Station Post-Shutdown Decommissioning Activities Report (PSDAR).⁵⁷
- This letter provides the notification required by 10 CFR 50.82 (a) (7) of changes to the Fermi 1 expected decommissioning cost and decommissioning schedule.⁵⁸
- Maine Yankee desires to revise the remediation strategy for containment as a result of lessons learned in the remediation and survey of other buildings such as the containment spray building and the primary auxiliary building. The revised strategy involves a more aggressive removal of the contaminated concrete that is inside the liner and leaving some additional activated concrete that is behind the liner in the Incore Instrumentation (ICI) Sump.⁵⁹

In 2013, the NRC staff compiled a list of violations of the notification requirement in 10 CFR 50.59.⁶⁰ The NRC list identified 137 violations between 2001 and 2013, inclusive, or 10.54 violations per year or 0.88 violations per month.⁶¹ Two of these violations involved Indian Point:

- The licensee made a change to the SFP [spent fuel pool] cooling system as described in the FSAR [Final Safety Analysis Report] Update, which resulted in an increase in the probability of a malfunction of equipment important to safety, without requesting commission approval prior to implementation as specified in 10 CFR 50.59.⁶²

⁵⁶ Brown, J. Stanley, Revision 3 to Maine Yankee Atomic Post-Shutdown Decommissioning Activities Report 1 (Jan. 18, 2016) (ADAMS Accession No. ML16040A206).

⁵⁷ Connell, James M., Revision 2 of the Maine Yankee Atomic Power Station Post-Shutdown Decommissioning Activities Report 1 (Dec. 12, 2013) (ADAMS Accession No. ML13357A205).

⁵⁸ Plona, Joseph H., Notification of Changes in Fermi 1 Decommissioning Cost 1 (Aug. 27, 2007) (ADAMS Accession No. ML072550205).

⁵⁹ Williamson, Thomas L., Proposed Change: Revised Activated Concrete DCGL and More Realistic Activated Concrete Dose Modeling – License Condition 2.B.(10), License Termination 1 (Sept. 11, 2003) (ADAMS Accession No. ML032730682).

⁶⁰ 10 CFR 50.59 allows licensees (not non-licensees) to modify a nuclear plant or its maintenance and operating procedures without prior NRC review and approval as long as the proposed changes do not reduce safety margins previously approved by the agency.

⁶¹ NRC, 50.59 Findings and Violations (2013) (ADAMS Accession No. ML13094A257).

⁶² *Id.* at 12.

- An NCV [non-cited violation] of 10 CFR 50.59 was identified for failure to adequately evaluate a modification to the SW [service water cooling] system and address the effect of a failure of a non-seismic pipe on the safety-related SW system.⁶³

The point is that 10 CFR 50.59 has been around for over 50 years⁶⁴ and subjected to considered and repeated attention by the NRC and industry over those decades.⁶⁵ Despite this long, bright spotlight on the importance of 10 CFR 50.59 reporting requirements, licensees often failed to comply with them.⁶⁶ By contrast, the attention given to and guidance provided on 10 CFR 50.82(a)(7) in practice is more like a strobe light than spotlight. Less awareness is unlikely to translate into more compliance.

It is entirely possible that only a handful of 10 CFR 50.82(a)(7) notifications to the NRC over the past decade was required. But it seems more likely that NRC is NOT receiving the notifications mandated by 10 CFR 50.82(a)(7). If deprived of notifications required by federal regulations, NRC may not be adjusting its oversight efforts accordingly and consequently depriving workers and the public of the assurance they deserve that decommissioning is being conducted safely.

⁶³ *Id.*

⁶⁴ U.S. Atomic Energy Commission, Letter from E. R. Price, Assistant Director, Division of Licensing and Regulation, to Thompson, Theos J., Chairman, Advisory Committee on Reactor Safeguards (Apr. 13, 1961).

⁶⁵ See U.S. NRC, Final Rule: Revision of Fee Schedules; Fee Recovery for Fiscal Year 2019. (May 17, 2019), <https://www.govinfo.gov/content/pkg/FR-2019-05-17/pdf/2019-10051.pdf>; NRC, Office of the Inspector General (OIG), OIG-16-A-19, Audit of NRC's Oversight of 10 CFR 50.59, 'Changes, tests and experiments' (Aug. 24, 2016) (ADAMS Accession No. ML16237A039); Kokajko, Lawrence E., U.S. NRC, 10 CFR 50.59; The Process, Application to Substantial Modifications to Licensee Facilities, and NRC Staff Assessment of Licensee Implementation (Feb. 25, 2015) (ADAMS Accession No. ML13066A249); Nuclear Energy Institute, NEI 96-07 Rev. 1, Guidelines for 10 CFR 50.59 Implementation (Nov. 2000) (ADAMS Accession No. ML003771157); NRC, Briefing on Status of 10 CFR 50.59 Issues (Mar. 2, 1999) (ADAMS Accession No. ML15127A030); NRC, Transcript, "Briefing on Integration and Evaluation of Results from Recent Lessons-Learned Reviews Including 50.59 Process Improvements" (Dec. 17, 1997) (ADAMS Accession No. ML15147A419).

⁶⁶ The NRC documented that licensees have violated 10 CFR 50.59 requirements during decommissioning. Koenick, Stephen S. and Watson, Bruce A., US NRC, Transition to Decommissioning Lessons Learned Report 37 (Oct. 28, 2016) (ADAMS Accession No. ML16176A339).

PSDAR Timing Makes Planning and Cost Estimating Unnecessarily Uncertain

In numerous places, the PSDAR described pending surveys of radiological and hazardous wastes:

- “Facility characterization so that radiological, regulated, and hazardous wastes are identified, categorized and quantified to support decommissioning and waste management planning.”⁶⁷
- “Radiological inventory characterization to support detailed planning.”⁶⁸
- “Site characterization activities will follow the Radiation Survey and Site Investigation (RSSI) described in NUREG-1575, ‘Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM).’”⁶⁹

These vital surveys will inventory what radiological and hazardous materials in what amounts exist in what locations. This knowledge is vital to the proper planning of the methods for successfully handling these materials. Defining these methods and the extent of their use as fully and accurately as possible clearly reduces the uncertainties of the cost estimates.

These surveys have not yet been performed. Consequently, the plans for successfully handling these materials have not yet been made with the fuller awareness obtained only by the results from the surveys. Furthermore, the cost estimates for handling unknown amounts of radiological and hazardous in unspecified locations contain considerable uncertainties and rely on assumptions that remain to be validated, or to be proven ill-founded. Regulations require that licensees submit the PSDAR and associated Decommissioning Cost Estimate to the NRC within two years of permanent cessation of reactor operation. That requirement translates into a four-year window: two years prior through two years after permanent shutdown. The PSDAR and

⁶⁷ PSDAR at 55.

⁶⁸ *Id.*

⁶⁹ *Id.* at 61.

Decommissioning Cost Estimate were submitted prior to permanent shutdown. More importantly, they were submitted prior to the surveys that more fully inform decommissioning planning and cost estimating. And they were submitted prior to the submitter becoming the licensee for Indian Point.

Indian Point Units 2 and 3 could have been permanently shutdown before the specified surveys were performed. The results from the surveys could then have informed the PSDAR's development and refined the cost estimates to reduce, but not entirely eliminate, uncertainties. The better informed PSDAR could then have been submitted by ENOI, or by HDI if the NRC had approved the requested license transfers by that time. But schedule pressure seems to have caused shortcuts around regulations and prudent practices.

The PSDAR submittal stated that the Decommissioning Cost Estimate included a Contingency Allowance of 18 percent to cover unknowns and surprises.⁷⁰ The key question then is whether the surveys, when performed, will reveal conditions that invalidate assumptions in the PSDAR and render the Contingency Allowance insufficient.

An 18 percent Contingency Allowance may seem sufficient — that is, until one reads the next paragraph on the same page of the PSDAR. It stated that a Contingency Allowance of 25 percent is included in the cost estimate for the Independent Spent Fuel Storage Installation (ISFSI) at Indian Point. The PSDSAR identified eleven factors causing cost estimates to be imprecise.⁷¹ The fourth factor listed is “Complexity.” It would be hard to contend that an ISFSI entails greater complexity than decommissioning three reactor units. It would be equally hard to contend that the other ten factors collectively make ISFSI cost estimating more imprecise than

⁷⁰ *Id.* at 95.

⁷¹ *Id.* at 93.

the complexity factor affects reactor decommissioning. Consequently, it would seem reasonable, prudent, and responsible to have a Contingency Allowance for decommissioning that is equal to or greater than that set aside for ISFSI. Alternatively, the PSDAR submittal could justify why a lesser Contingency Allowance for decommissioning activities makes sense.

The matter involves more than mere accounting principles. If the decommissioning costs rise above the estimate, the adequacy of funding the work may be challenged. More importantly, it may set the stage for a trap where rising costs are curtailed by shortcuts that reduce costs — and safety. If the PSDAR contained adequate information to enable the NRC to provide effective and efficient oversight, there would be at least some protection against such traps, however the above discussion shows how the PSDAR is inadequate in that regard as well.

The PSDAR Cost-Estimate in Conjunction with Holtec's Corporate Structure Shifts All Risk on the Public

Along with the above mentioned uncertainty within the cost-estimate, the PSDAR makes it clear that Holtec's corporate structure and business model will shift all financial risk onto the public and risk overdrawing the decommissioning fund.

Holtec's Corporate Structure Obstructs Oversight and Fee Recovery

As detailed by the PSDAR, the corporate structure of Holtec consists of multiple levels of limited liability corporations that ultimately insulates the responsible subsidiaries from cost recovery actions.⁷² The corporate structure can limit the public from seeking financial

⁷² See PSDAR at 60; Riverkeeper Contention at 3-5. Holtec International is a privately held company founded by CEO Krishna Singh. Holtec Decommissioning International (HDI) is a wholly owned subsidiary that was formed by Holtec International to operate and decommission all Holtec-owned nuclear power plant sites and is the licensed operator at the Holtec-owned sites. The physical site will be held by Holtec International's subsidiary, Nuclear Asset Management Company, LLC (NAMCo) as the site owner. Another subsidiary, Comprehensive Decommissioning International (CDI), consisting of a joint venture between SNC Lavalin and Holtec, will be contracted to complete the decommissioning. Notably, SNC Lavalin has also been embroiled in numerous bribery scandals in the recent past.

contributions from the license holder. If the bulk of the capital is held by a passive corporate parent company, it is extremely difficult to seek financial liabilities against the parent, unless the parent had previously agreed to financial assurances.⁷³ This allows the license holder to move profits into the assets of their corporate parent and then declare bankruptcy if decommissioning funds run out, leaving ratepayers on the hook for the remainder of the costs. As recognized by the NRC, an upstream parent company is not liable for the financial failures of its subsidiaries, nor is it a licensee.

Further, the majority of the corporate entities at issue are privately held, and as such are not required to follow public disclosures rules.⁷⁴ As such, HDI and Holtec are not required to provide any additional financial information to the public, which makes it extremely difficult for both NRC and the public's monitoring of decommissioning finances, to mitigate the bankruptcy risk. Not only is financial information potentially hidden until a major problem emerges, but there is no recourse if funds run out. With this in mind, HDI's plan to rely solely on the decommissioning trust funds with no additional identified source of funding is extremely risky.⁷⁵

Fleet Model Exposes Public to Additional Risk

Here, HDI has proposed a novel "fleet approach," which they claim to decrease costs and reduce risk through the simultaneous decommissioning of several sites at once through contracting with their own wholly and partially owned subsidiaries.⁷⁶ Not only is there no real evidence that this "fleet approach" will result in more efficient decommissioning, but it

⁷³ Latham and Watkins, *Nuclear Decommissioning and Legal Risk* 11, Client Alert White Paper 2236 (2017) <https://www.lw.com/thoughtLeadership/nuclear-decommissioning-legal-risk>.

⁷⁴ Jones Day, *Public Disclosure Requirements for Private Companies: U.S. vs. Europe* (Oct. 2012), <https://www.jonesday.com/en/insights/2012/10/public-disclosure-requirements-for-private-companies-us-vs-europe>.

⁷⁵ PSDAR at 106 (If funding assurance shows that the decommissioning trust fund is insufficient then "an alternate funding mechanism" will be put in place.).

⁷⁶ License Transfer Application at 2.

facilitates the likelihood that HDI will gloss over site-specific challenges with a one-size-fits-all approach in both its cost-estimate and environmental and safety precautions. Additionally, the current proposed place gives Holtec the ability to walk away with millions in profit regardless of whether the decommissioning is ultimately completed because Holtec is ultimately contracting with its own subsidiaries.

HDI's Cost-Estimate Funnels Funds into Its Own Pockets

HDI's plan ultimately consists of owning and contracting decommissioning work to its own wholly and partially owned subsidiaries. Therefore, much of the \$2.3 billion estimated costs will eventually go into the coffers of the Holtec and/or HDI.⁷⁷ Because a substantial amount of its profits will be garnered from the decommissioning operations, HDI is less dependent on finishing the decommissioning process properly to obtain a profit over the remainder of the decommissioning trust and there is little risk to HDI regardless of whether decommissioning is completed.

In addition, HDI's cost estimate relies heavily on the grant of exemptions to use the decommissioning trust funds for spent fuel management and site restoration, both non-decommissioning purposes.⁷⁸ This is problematic because it takes funds away from their original intended decommissioning purpose, but also adds to Holtec's profit margins. Licensees are able to recoup spent fuel management costs from the Department of Energy. While Holtec does intend to seek reimbursement, it has made clear that it does not plan to return the reimbursed funds back into the trust.⁷⁹ As such, Holtec will be siphoning the trusts funds into other purposes, and then getting reimbursed for those costs, which it will pocket itself. The NRC should reject

⁷⁷ PSDAR at 49.

⁷⁸ PSDAR at 2. *See* 10 C.F.R. § 50.82(8)(i); 10 C.F.R. § 50.2.

⁷⁹ *See* PSDAR table 5-1a-c. 100-105.

the PSDAR and any exemption requests because as currently set out all risk remains with the public if the decommissioning trust fund falls short, as the spent fuel reimbursement will not be used to replenish the fund.

Further, the Financial Analysis – “IPEC Site-Specific Decommissioning Cost Estimate” – that accompanies Holtec’s PSDAR is deficient. PSDAR 41-117. The Atomic Energy Act, 42 USC § 2232(a) requires that an applicant prove it has the financial resources to protect public health and safety.⁸⁰ The financial requirement is expanded upon in the NRC’s regulations at 10 CFR §§ 50.75(h)(1), which states that a licensee cannot be an investment manager for decommissioning fund, and 50.82(a)(8)(i)(B), which requires that the value of the decommissioning trust fund cannot go below amount necessary to place and maintain the reactor in a safe storage condition if unforeseen conditions or expenses arise.

Additional deficiencies in Holtec’s financial analysis are identified in the Contentions of the Town of Cortlandt, Village of Buchanan, and Hendrick Hudson School District (“Cortlandt Contention”)⁸¹ and the Contentions of New York State (“State Contentions”).⁸² Rather than restate these contentions in full here, they are summarized below and incorporated by reference herein.

The Foundation for Holtec’s Financial Projection Is Fundamentally Flawed.

As fully set forth in the Cortland Contentions, the PSDAR and Cost Estimate are flawed because Holtec assumes, without support, that the US Department of Energy (DOE) will take

⁸⁰ See 42 USC § 2232(a) (application for a license shall specifically state information as the Commission may determine to be necessary to decide technical and financial qualifications of the applicant).

⁸¹ Petition by the Town of Cortlandt, Village of Buchanan, and Hendrick Hudson School District’s for Leave to Intervene and Hearing Request 11 (Feb. 12, 2020) (ADAMS Accession No. ML20043F054) (“Cortlandt Contentions”).

⁸² Petition of the State of New York for Leave to Intervene and for a Hearing 10, 37 (Feb. 12, 2020) (ADAMS Accession No. ML20043E118) (“State Contentions”).

ownership of the spent nuclear fuel at Indian Point by the year 2030.⁸³ In fact, all of the relevant indicators say otherwise. The Department of Energy, after three decades of work, in 2011 abandoned any further consideration of the Yucca Mountain, Nevada, site as the Nation's radioactive waste repository. And, there is no further effort being expended by the Department to designate an alternative site. Therefore, it is inconceivable that the DOE will be in a position to take ownership of the spent nuclear fuel at Indian Point within the mere decade between the present time and the year 2030.

As further set forth in the first Cortlandt Contention, and as fully set forth in the second State Contention, the PSDAR reveals that Holtec has every intention of cutting corners.⁸⁴ This conclusion follows logically from Holtec's business practices and its PSDAR – (1) creating a complex matrix of limited liability companies resulting in an obfuscated reporting structure that is very effective at minimizing any liability, (2) Holtec parent company providing no financial backing for subsidiaries, and (3) claiming that it can decommission Indian Point in 12-15 years (versus the usual thirty years) when it has not completed even one decommissioning project.

**Holtec's Assumptions About the Earnings Account Associated
with the Decommissioning Fund Are Incorrect Because Holtec
Wrongly Assumes It Can Avail Itself of the Fund's Earnings
Account**

As fully set forth in the first State Contention, despite 10 CFR 50.75(b)(1) (requirements for licensee to indicate to NRC how it will provide reasonable assurance that funds will be available for the decommissioning process) and (e)(1)(i) (earnings account must be segregated from licensee's assets and outside the administrative control of the licensee and its subsidiaries or affiliates), Holtec impermissibly assumes that it can access the money in the earnings account

⁸³ Cortlandt Contention 1 at 11; PSDAR at 48, 51.

⁸⁴ Cortlandt Contention 1 at 23, 28; State Contention 2 at 9, 12.

for decommissioning.⁸⁵ First, it is true that Holtec can establish the account in 10 CFR 50.7(e)(1)(i) as a *prepayment* account to provide financial assurance. Also, Holtec's projected two percent growth rate is within NRC guidelines in 10 CFR 50.75(e)(1)(i). That said, Holtec is not entitled to use the earnings account to pay for decommissioning.⁸⁶ Holtec estimates that the two percent rate will translate into a dollar value of \$200 million. If Holtec's dollar value projections are correct, however, this amount is not available to Holtec until final dismantlement and license termination as per 10 CFR § 50.75(e)(1)(i). Furthermore, this means that the amount of money in the *decommissioning fund* will be \$200 M less than Holtec claims. Because the Fund amount that Holtec is depending on to pay for the decommissioning of Indian Point is likely to be \$200 million less than Holtec projects, Holtec will have even more motivation to cut corners.

**Holtec's Cost Estimates for the Decommissioning Are Too Low
Because It Does Not Take into Consideration Unforeseen
Circumstances that Are Likely to Occur.**

As fully set forth in State Contention 1, Holtec's financial projections are not in compliance with 10 CFR §§ 50.33(f) (demonstration that the applicant possesses or has reasonable assurance of obtaining the funds necessary), 50.33(k)(1) (reasonable assurance that funds will be available to decommission the facility), 50.40(b) (licensee needs to be technically and financially qualified), 50.54(bb) (how licensee intends to manage and provide funding for the management of all irradiated fuel at the reactor following permanent cessation of operation of the reactor until title to the irradiated fuel and possession of the fuel is transferred to the Secretary of Energy for its ultimate disposal in a repository), 50.75(b)(1) (requirements for indicating to NRC how a licensee will provide reasonable assurance that funds will be available

⁸⁵ State Contention 1 at 4-7.

⁸⁶ *Id.*

for the decommissioning process), 50.75(e)(1)(i) (earnings account must be segregated from licensee’s assets and outside the administrative control of the licensee and its subsidiaries or affiliates), 50.82(a)(8)(vii) (value of decommissioning trust fund cannot go below an amount necessary to place and maintain the reactor in a safe storage condition if unforeseen conditions or expenses arise), and 72.30(b) (licensee must submit for NRC review and approval a decommissioning funding plan that must contain: (1) how reasonable assurance will be provided that funds will be available to decommission, (2) a detailed cost estimate for decommissioning, and (3) an adequate contingency factor). In short, Holtec’s estimates do not consider any unforeseen additional contamination or other circumstances that it is likely to encounter. Holtec’s PSDAR says that it will take IPEC “as is” without having performed a pre-license transfer analysis. This makes it even more likely that Holtec will encounter circumstances it has not planned for. State Contention 2 points out that these likely additional circumstances are not abstract concepts – they in fact include: (1) unpredicted additional groundwater contamination beyond what is already known,⁸⁷ (2) two large and aging natural gas pipelines that run close to Unit 3,⁸⁸ (3) costs that may be incurred for repackaging spent nuclear fuel,⁸⁹ (4) handling and disposal of mixed waste (hazardous and radioactive),⁹⁰ and (5) what is likely to turn out to be an unrealistically short time projected for internal reactor pressure segmentation.⁹¹

Indian Point has a long history radiological and non-radiological releases to the environment. Holtec’s “cut-corners” PSDAR and low-ball cost estimates do not provide the

⁸⁷ State Contention 2 at 9, 17.

⁸⁸ State Contention 2 at 10, 33.

⁸⁹ State Contention 2 at 10, 40.

⁹⁰ State Contention 2 at 11, 45.

⁹¹ State Contention 2 at 11, 48.

requisite assurances that it will be able to conduct decommissioning so as to protect public health and safety, even if it wanted to.

PSDAR Does Not Ensure the Environmental Impacts are Bounded by Existing Environmental Impact Statements

HDI's PSDAR omits critical information that is needed to determine and account for the possible environmental impacts of decommissioning. This impedes the PSDAR's ability to meet its environmental assessment purpose, but also has the similar implications on the reliability of the cost-estimate, NRC oversight, and public notification as discussed above. In addition, the environmental impacts related to radioactive materials, as at issue here, necessarily has safety and public health implications as well. Notably the PSDAR completely fails to mention the AIM pipeline that lies on the Indian Point site, let alone address its potential effects. The PSDAR raises barging of waste as a possibility, but fails to do any assessment of potential environmental impacts. In addition, as discussed above, the impact of contaminated groundwater has not been sufficiently assessed.

PSDAR Fails to Mention the AIM Pipeline

The lack of meaningful consideration of environmental impacts within the PSDAR is perhaps most pronounced in the complete lack of acknowledgement of the Algonquin (AIM) pipeline. This 42-in high-pressure gas pipeline lies only 105 feet from critical safety infrastructure at Indian Point and thus could present a serious environmental and safety risks in conjunction with the decommissioning activities.⁹² The PSDAR's complete omission of the pipeline fails its main purpose to "ensure that the environmental impacts of the planned decommissioning process are bounded by those considered in existing environmental impact

⁹² SAPE2016 (last visited Mar. 25, 2020), <https://sape2016.org/>; *see also* NRC OIG, Concerns Pertaining to Gas Transmission Lines at the Indian Point Nuclear Power Plant, Case No. 16-024, 4 (Feb. 13, 2020) (ADAMS Accession No. ML20056F095) ("OIG Report").

statements.”⁹³ It is ludicrous to believe HDI and Holtec fully considered all the potential environmental and safety risks of the AIM pipeline without a mention in the PSDAR.

Nor do any of the existing environmental impact statements remedy this lapse in analysis. The latest Supplemental Environmental Impact Statement (“SEIS”), and only SEIS to consider the AIM pipeline, only looks to impacts due to pipeline construction and operation on power plant operations.⁹⁴ Decommissioning a power plant is completely different than power generation operations. Any analysis of AIM pipeline impacts during Indian Point operations is not automatically transferable to an EIS for decommissioning, and at the very least warrant a discussion on how such analysis is applicable to this significantly different process.

Furthermore, the Office of Inspector General (OIG) of the NRC recently issued a report confirming the many long-standing criticisms of the existing assessments of the AIM pipeline’s potential impacts and interactions with Indian Point. In the report, the OIG found that the underlying analysis conducted by the NRC contained inaccuracies and was based on a number of erroneous or baseless assumptions and factors, such that “[s]everal NRC senior managers said that based on issues identified in this event inquiry pertaining to the Physical Scientist’s analysis, it may be prudent to redo the analysis.”⁹⁵ Then, when given an opportunity to reevaluate and confirm the analysis, the NRC failed to reexamine the analysis properly and did not accurately communicate the analytical work that it had performed.⁹⁶ This reinforces the lack of analysis and understanding of any of the risks of the AIM pipeline, and the insufficiency of the existing analysis provide accurate basis for the environmental assessment of the risks of the AIM pipeline

⁹³ Regulatory Guide 1.185 at 5.

⁹⁴ NRC, Generic Environmental Impact Statement for License Renewal of Nuclear Power Plants: Regarding Indian Point Nuclear Generating Unit Nos. 2 and 3, Supplement 38 (April 2019) (ADAMS Accession No. ML18107A759).

⁹⁵ OIG Report at 2.

⁹⁶ *Id.* at 2-3.

on Indian Point. After its repeated failures, the NRC should take the instant opportunity to rectify its prior errors and finally require a proper, accurate assessment of the AIM pipeline's potential impacts for Indian Point's decommissioning.

PSDAR's Mention of Barging Lacks Specificity Needed to Determine the Parameters of the Proposal

The PSDAR's failure to assess environmental impacts can also be seen in its vague mention of the possibility of transporting large components by barge.⁹⁷ Other than making conclusory statements about the capacity of the current docking facilities and that dredging is not anticipated to be needed, no other critical information is provided.⁹⁸ The missing information includes possible routes, safety considerations, environmental impact beyond that of the existing loading dock, or even the amount of barging that may be needed.

The PSDAR, "concludes that for decommissioning activities that do not disturb lands beyond operational areas, the effects on aquatic ecology are not detectable or destabilizing, and that effects on aquatic ecology related to use of a dock or barge loading area and dredging for barge navigation are small."⁹⁹ However, Holtec provides no basis or assessment of the extent barging might disturb lands beyond the operational areas. This lack of thought and analysis shows that key considerations are missing, and it is unfathomable that proper environmental impact and safety assessments have been made based on the barebones information available let alone accurate cost estimates.¹⁰⁰

⁹⁷ PSDAR at 12, 20 ("HDI may elect to ship large components by barge.").

⁹⁸ PSDAR at 20, 25 (Barging may use "an existing dock or other landing on the east bank of the Hudson River adjacent to the operational area of IPEC"); PSDAR 20, 22, 28 (stating that dredging is not anticipated).

⁹⁹ PSDAR at 23.

¹⁰⁰ HDI does claim that, "Transportation of waste by barge to a nearby facility with rail access is an opportunity warranting further investigation due to the potential for a reduction in waste transportation vehicle road traffic and costs. However, transportation by barge is not used as a basis for costs in these estimates." PSDAR at 67. However, even assuming that the costs of barging would be bounded within the more expensive transportation alternatives, the environmental assessment is still lacking.

Furthermore, barging large potentially radioactive materials down the Hudson may present numerous threats to the environment. Barging and boat traffic has the potential to impact fish and disrupt habitats.¹⁰¹ Riverkeeper had previously observed an increased number of dead sturgeon—an endangered species under New York law—coinciding with additional boat traffic and activities related to the Tappan Zee Bridge construction project.¹⁰² Combined with the possibility of an accident that could result in radioactive materials entering the river, there is likely a risk that must be mitigated through preventative measures. To properly determine the risk and needed measures, Holtec must include an environmental analysis of the barge route and specifics within the PSDAR.

PSDAR Violates Federal Regulations

By letter dated December 19, 2019, HDI submitted a PSDAR to the NRC for the proposed decommissioning of the Unit 1, 2, and 3 reactors at the Indian Point Energy Center.

A federal regulation, 10 CFR 50.82(a)(4)(i), requires a PSDAR to be submitted to the NRC within two years of permanent cessation of reactor operations. The language within this regulation is explicitly clear: “the licensee shall submit a post-shutdown decommissioning activities report (PSDAR) to the NRC.”

HDI is not the licensee for any of the Indian Point reactors. Entergy Nuclear Operations, Inc. (“ENOI”) submitted a letter to the NRC seeking the agency’s approval to transfer the licenses for Indian Point Units 1, 2, and 3 to HDI.¹⁰³ But that requested approval has not yet

¹⁰¹ Alistar Becker et al., *Does Boat Traffic Cause Displacement of Fish in Estuaries?*, 75 Marine Pollution Bull. 168, 169 (2013), <https://www.nrc.gov/docs/ML1434/ML14345A583.pdf> (Discussing the negative impact and disturbance of boating on fish populations).

¹⁰² Riverkeeper, Reports of dead sturgeon have spiked since Tappan Zee Bridge project began; Riverkeeper calls for immediate steps, investigation (July 9, 2015), <https://www.riverkeeper.org/news-events/news/preserve-river-ecology/reports-of-dead-sturgeon-have-spiked-since-tappan-zee-bridge-project-began-riverkeeper-calls-for-immediate-steps-investigation/> (discussing the likelihood of increased boat activity on the observed sturgeon deaths).

¹⁰³ License Transfer Application.

been given and may, or may not, be given. The NRC acknowledged receipt of the PSDAR from HDI and indicated it would treat it as a supplement to the PSDAR previously submitted by ENOI.¹⁰⁴ But 10 CFR 50.82 does not contain a provision for potential, prospective, or pending licensees submitting PSDARs or for “hybrids” where an older PSDAR submitted by a licensee can be co-joined with a newer PSDAR submitted by a non-licensee. It unequivocally states that the licensee shall submit the PSDAR. Because this PSDAR was not submitted by a licensee and therefore does not comply with the applicable federal regulation, the NRC must reject it.

The issue is more than mere semantics. 10 CF 50.82(a)(4)(i) is but one of many federal regulations applicable to decommissioning. Non-compliance with this regulatory requirement undermines the effectiveness of other regulatory requirements and more importantly, the protections provided to workers and the public by those requirements. Furthermore, the non-compliance with this regulatory requirement might result in the NRC collecting fees unlawfully.

The Decommissioning Cost Estimate provided with the PSDAR also violated a federal regulation. 10 CFR 50.82(a)(8)(iii) requires a licensee to submit a site-specific Decommissioning Cost Estimate. Again, HDI is not the licensee for any of the Indian Point reactors.

PSDAR Makes Review by the NRC Unduly Burdensome

There are important regulatory reasons behind the requirement that licensees submit the PSDAR to the NRC. Other federal regulations require licensees to maintain effective processes that are relied upon by the NRC in its decision-making and oversight. For example, Appendix B to 10 CFR Part 50 requires quality assurance criteria that translate into measures like training and qualifications of individuals performing safety-related work and independent verifications of calculations, evaluations and reports on safety-related subjects. Similarly, 10 CFR 50.9 requires

¹⁰⁴ See Guzman, *supra* note 5. The NRC’s response to the PSDAR submitted by HDI was sent to HDI. It is not apparent from the distribution list for the letter that NRC mailed a copy to ENOI.

information provided to the NRC by licensees to be complete and accurate in all material aspects.

The NRC staff reviewed the regulations applicable during reactor operation to identify regulations that continued to apply throughout decommissioning until license termination as well as regulations that were no longer applicable either in whole or in part.¹⁰⁵ The NRC staff determined that 10 CFR 50.9 remained applicable during decommissioning:¹⁰⁶

<i>Citation:</i>	§50.9, Completeness and accuracy of information
<i>Retrieval Keyword Phrase:</i>	license; licensee; regulated activity
<i>Background:</i>	The regulations of this section are applicable to information submitted by a licensee to the NRC.
<i>Applicability Analysis:</i>	§50.9(a) requires that all information submitted by a licensee to the NRC must be complete and accurate in all respects. §50.9(b) requires licensees to notify the NRC of any regulated activity which has a significant implication for public health and safety or common defense and security. The requirements of this section are applicable to all licensees of this part.
<i>Applicability Binning:</i>	Regulations are directly applicable to decommissioning nuclear power plants.

The NRC staff also determined that Appendix B to 10 CFR Part 50 also remained applicable:¹⁰⁷

<i>Citation:</i>	Appendix B to Part 50-Quality Assurance Criteria For Nuclear Power Plants and Reprocessing Plants
<i>Retrieval Keyword Phrase:</i>	applicant for an operating license; nuclear power plants
<i>Background:</i>	This Appendix defines the quality assurance program necessary to provide assurance that a SSC will perform the design function adequately during service.
<i>Applicability Analysis:</i>	Based on the introduction to this Appendix, the applicability appears to be limited to applicants for construction permits and operating licenses. However, as discussed in a response to a comment associated with 1996 decommissioning rule (61 FR39283), the NRC explicitly stated that the provisions of this appendix are applicable to decommissioning plants. The NRC may wish to review Appendix B to clarify the extent of its applicability to decommissioning plants.
<i>Applicability Binning:</i>	Regulations are directly applicable to decommissioning nuclear power plants.

¹⁰⁵ Huffman, *supra* note 16.

¹⁰⁶ *Id.* at 39.

¹⁰⁷ *Id.* at 77.

ENOI is a licensee. The NRC periodically inspects the conformance of ENOI and other licensees with federal regulations, including 10 CFR 50 Appendix B and 10 CFR 50.9. In fact, last year the NRC identified that ENOI had violated 10 CFR 50 Appendix B by failing to properly evaluate and control the use of scaffolding installed near safety equipment.¹⁰⁸ Earlier, the NRC sanctioned the licensee for the South Texas Project nuclear plant after determining that hourly fire watch records were not complete and accurate.¹⁰⁹ These are but two of numerous examples of the NRC verifying that licensees are complying with regulatory requirements, or flagging non-compliances that can be remedied and their causes corrected to prevent future missteps.

The NRC's oversight of licensees provides the agency with assurance that their submittals will satisfy the NRC's expectations regarding quality preparation and complete, accurate contents. Absent this assurance, the NRC would have to either expend additional resources to obtain that assurance or risk basing regulatory decisions affecting workers and the public on unproven grounds.

HDI is not a 10 CFR Part 50 licensee as is ENOI. The NRC has not performed the inspections of HDI that it conducts of ENOI and therefore lacks comparable assurance that the PDSAR's preparation and content meets the agency's expectations. This is not to imply that HDI lacks the professionalism and competence needed to prepare a sound PSDAR. Rather, the assertion is that the NRC lacks the assurance of HDI that it has of ENOI regarding information it received.

¹⁰⁸ Schroeder, Daniel L., Indian Point Nuclear Generating, Units 2 and 3 – Integrated Inspection Report 05000247/2019002 and 05000286/2019002, at enclosure 2 (Aug. 13, 2019) (ADAMS Accession No. ML19225C606).

¹⁰⁹ Kennedy, Kriss, South Texas Project Electric Generating Station – Notice of Violation, NRC Inspection Report 05000498/2017009, 05000499/2017009, and NRC Investigation Reports 4-2015-014 and 4-2016-008, at enclosure 2 (Aug. 18, 2017) (ADAMS Accession No. ML17233A001).

PSDAR Makes Fee Recovery by the NRC Uncertain

For decades, the NRC has been a fee-based agency collecting the majority of its budget not from taxpayer revenues but from fees collected from its licensees. The NRC's oversight efforts for Indian Point are funded by annual license fees and invoices for extra efforts. In fiscal year 2019, the NRC collected \$4,669,000 from its licensees for each operating reactor, \$152,000 for each reactor in decommissioning, and \$152,000 for each reactor with spent fuel stored onsite.¹¹⁰ The NRC invoiced licensees of operating reactors at a rate of \$278 per hour for the full cost of additional services such as reviewing license amendments, license renewal applications, decommissioning licensing requests.¹¹¹

Even if the NRC's work on this PSDAR can be funded by the annual fees collected from ENOI for Indian Point, ENOI has not explicitly authorized the work. The PSDAR neither stated it was submitted on behalf of ENOI nor was accompanied by a letter from ENOI indicating its endorsement of the document. Thus, it is not evident that NRC can legally finance its processing of this PSDAR from the annual license fees.

Even if the NRC's work on this PSDAR is covered under the hourly billing regulation, it is not evident that the NRC can legally invoice a non-licensee for its cost recovery. For example, the NRC initially determined that it could not invoice PowerTech under 10 CFR 170 for its costs incurred resolving two safety issues. Later, the NRC revisited the matter and concluded that it could indeed bill PowerTech for the costs.¹¹² PowerTech is a licensee of the NRC¹¹³ and

¹¹⁰ NRC, Final Rule: Revision of Fee Schedules; Fee Recovery for Fiscal Year 2019, at 22332 (May 17, 2019), <https://www.govinfo.gov/content/pkg/FR-2019-05-17/pdf/2019-10051.pdf>.

¹¹¹ 10 C.F.R. § 170.21.

¹¹² Cylkowski, David, *In the Matter of PowerTech (USA) Inc.*, Docket No. 40-9075-MLA, ASLBP No. 10-898-02-MLA-BD01, 1-2 (Feb. 15, 2018) (ADAMS Accession No. ML19180A008).

¹¹³ PowerTech has a materials license issued by the NRC under 10 CFR Part 40. ENOI has reactor licenses issued by the NRC under 10 CFR Part 50.

protested what it felt was improper charges by the NRC.¹¹⁴ PowerTech was clearly an NRC license, but it was far from certain whether the NRC could invoice this license for its safety work. It seems less certain that the NRC could legally invoice a non-licensee like HDI for its costs processing the PSDAR.

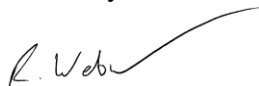
If NRC waited to invoice HDI until after the requested license transfers were approved that retroactively made HDI a licensee, this delay might at least appear to represent a conflict-of-interest. For if the NRC were to disapprove the license transfers, it would be left holding a bill for services it might not legally collect from either HDI or ENOI. The NRC might be pressured to approve the license transfers in order to legally get reimbursed for its work.

Conclusion

The inadequate PSDAR, and Holtec's past conduct show that NRC should reject the proposed transfer due to Holtec unfitness to be a licensee. In addition, the NRC should reject HDI's PSDAR because it is inadequate in many respects, including failure to even mention a high pressure gas pipeline that run through the Indian Point site, the huge uncertainty in the cost estimates, and failure to analyze the need for remediation of the contaminated groundwater under the site.

We appreciate the opportunity to make comments on this proposal. Thank you for your careful consideration of these comments.

Sincerely,



Richard Webster
Legal Director
Riverkeeper, Inc.

¹¹⁴ Order Requesting Information for Fourth Telephonic Conference Call, 3, Feb. 8, 2018 (ADAMS Accession No. ML18039A792).