

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Kristine L. Svinicki, Chairman
Jeff Baran
Annie Caputo
David A. Wright
Christopher T. Hanson

In the Matter of

ENERGY NUCLEAR OPERATIONS, INC.,
ENERGY NUCLEAR INDIAN POINT 2, LLC,
ENERGY NUCLEAR INDIAN POINT 3, LLC,
HOLTEC INTERNATIONAL, AND HOLTEC
DECOMMISSIONING INTERNATIONAL, LLC

(Indian Point Nuclear Generating Station,
Units 1, 2, and 3 and ISFSI)

Docket Nos. 50-003-LT-3
50-247-LT-3
50-286-LT-3
72-51-LT-2

CLI-21-01

MEMORANDUM AND ORDER

This proceeding concerns an application to transfer control of the Nuclear Regulatory Commission (NRC) licenses for the Indian Point Energy Center (Indian Point), including the general license for the facility's independent spent fuel storage installation (ISFSI), from the current plant owners and license holders to subsidiaries of Holtec International (Holtec).¹ After

¹ See Indian Point Nuclear Generating Unit Nos. 1, 2, and 3; Consideration of Approval of Transfer of Control of Licenses and Conforming Amendments, 85 Fed. Reg. 3947 (Jan. 23, 2020) (Hearing Notice); Application for Order Consenting to Transfers of Control of Licenses and Approving Conforming License Amendments (Application), attached (Encl. 1) to Letter from A. Christopher Bakken III, Entergy Nuclear Operations, Inc., to NRC Document Control Desk (Nov. 21, 2019) (Cover Letter). The cover letter and application are available together under ADAMS accession number ML19326B953.

completing its review, the NRC Staff approved an exemption requested in the application and issued an order approving the license transfer.²

NRC regulations allow the Staff to issue its approval or denial of a license transfer application, consistent with its findings in its Safety Evaluation Report, during a pending adjudicatory proceeding.³ But the application “will lack the agency’s final approval until and unless the Commission concludes the adjudication” in the Applicants’ favor.⁴ The Staff’s order and related issuances therefore remain subject to our authority to modify, condition, or rescind them, based on the results of this proceeding.

Based on the NRC Staff’s approval of the license transfer application, ownership of Indian Point Units 1 and 2 would be transferred from Entergy Nuclear Indian Point 2, LLC, to Holtec Indian Point 2, LLC (Holtec IP2), while ownership of Indian Point Unit 3 would be transferred from Entergy Nuclear Indian Point 3, LLC, to Holtec Indian Point 3, LLC (Holtec IP3).⁵ The authority of Entergy Nuclear Operations, Inc. (Entergy) to conduct licensed activities at all three units would be transferred to Holtec Decommissioning International, LLC (HDI).⁶

² See Letter from Richard V. Guzman, NRC, to Andrea L Sterdis, Holtec Decommissioning International, LLC (Nov. 23, 2020) (ML20309A577); Letter from Richard V. Guzman, NRC, to A. Christopher Bakken III, Entergy Nuclear Operations, Inc. (Nov. 23, 2020) (ML20297A321).

³ 10 C.F.R. § 2.1316(a); see also Atomic Energy Act of 1954, as amended (AEA) § 189a., 42 U.S.C. § 2239(a)(2)(A) (permitting issuance of license amendment on an immediately effective basis, upon a determination that the amendment involves no significant hazards consideration, notwithstanding the pendency of a hearing request).

⁴ See *Entergy Nuclear Operations, Inc.* (Pilgrim Nuclear Power Station), CLI-19-11, 90 NRC 258, 262 (2020) (quoting *Vermont Yankee Nuclear Power Corp. and AmerGen Vermont, LLC* (Vermont Yankee Nuclear Power Station), CLI-00-17, 52 NRC 79, 83 (2000)).

⁵ Application at 1.

⁶ *Id.* Holtec IP2 and Holtec IP3 will be direct, wholly owned subsidiaries of Nuclear Asset Management Company, LLC, which is itself a direct, wholly owned subsidiary of Holtec Power, Inc. HDI is also a direct, wholly owned subsidiary of Holtec Power. And Holtec Power is a direct, wholly owned subsidiary of Holtec International. *Id.* at 5.

We consider today three separate petitions for leave to intervene and requests for a hearing on the proposed license transfer from the State of New York; the Town of Cortlandt, Village of Buchanan, and Hendrick Hudson School District (together, Local Petitioners); and Riverkeeper, Inc.⁷ We also consider a letter from Safe Energy Rights Group, Inc. (SEnRG) that requests a hearing.⁸ In addition, we consider a motion by New York to amend its petition based on circumstances related to the Coronavirus Disease 2019 (COVID-19) public health emergency.⁹ We also consider two motions by Riverkeeper, one to supplement the basis for its sole contention, and the other seeking a waiver of our regulations to require a Commission decision on Riverkeeper's hearing request prior to the Staff's decision on the license transfer application.¹⁰ Entergy; Entergy Nuclear Indian Point 2, LLC; Entergy Nuclear Indian Point 3, LLC; Holtec; and HDI (together, Applicants) oppose all four hearing requests, and the three motions.¹¹

⁷ See *Petition of the State of New York for Leave to Intervene and for a Hearing* (Feb. 12, 2020) (ML20043E118) (New York Petition); *Town of Cortlandt, Village of Buchanan, and Hendrick Hudson School District's Petition for Leave to Intervene and Hearing Request* (Feb. 12, 2020) (ML20043F054) (Town, Village, and District Petition); *Petition of Riverkeeper, Inc. to Intervene and for a Hearing* (Feb. 12, 2020) (ML20043F530) (Riverkeeper Petition).

⁸ Letter from Courtney M. Williams, SEnRG, to NRC Hearing Docket, *Request for Hearing on Indian Point License Transfer, NRC-2020-0021* (Feb. 11, 2020) (ML20042C984) (SEnRG Letter).

⁹ See *Motion for Leave to Amend Contentions NY-2 and NY-3* (Mar. 24, 2020) (ML20084Q191) (New York Motion).

¹⁰ See *Motion of Riverkeeper, Inc. to Supplement the Basis of its Contention With New Evidence Not Previously Available* (Oct. 20, 2020) (ML20296A283) (Riverkeeper Motion to Supplement); *Motion of Riverkeeper, Inc. for Full Adjudication of its Pending Contention Prior to Any Decision by NRC on the License Transfer* (Nov. 6, 2020) (ML20311A660) (Riverkeeper Motion for Waiver).

¹¹ See *Applicants' Answer Opposing Petition for Leave to Intervene and Hearing Request Filed by the State of New York* (Mar. 9, 2020) (ML20069K756) (Applicants' Answer to New York Petition); *Applicants' Answer Opposing Petition for Leave to Intervene and Hearing Request Filed by the Town of Cortlandt, Village of Buchanan, and Hendrick Hudson School District* (Mar. 9, 2020) (ML20069K761); *Applicants' Answer Opposing Riverkeeper, Inc.'s Petition to Intervene and for a Hearing* (Mar. 9, 2020) (ML20069L613); *Applicants' Answer Opposing Safe*

For the reasons stated below, we deny each of the hearing requests, as well as the motions filed by New York and Riverkeeper.

I. BACKGROUND

A. The License Transfer Application and Related Submissions

Based on the approval of their license transfer application, Entergy and Holtec plan to execute a Membership Interest Purchase and Sale Agreement that will result in HDI assuming responsibility for the Indian Point units.¹² Because the license transfers will not occur until after Entergy has permanently ceased operations at Indian Point and removed all fuel from its reactors, however, HDI's licensed activities will be limited. Specifically, HDI's activities will be limited to possessing and disposing of radioactive material, maintaining the Indian Point facility in a safe condition, decommissioning and decontaminating the facility, and maintaining the facility's ISFSI until it can be decommissioned.¹³

To complete these activities, HDI will enter into an agreement with Holtec IP2 and Holtec IP3 under which these entities will fund HDI's work at Indian Point.¹⁴ HDI will, in turn, enter into an agreement with Comprehensive Decommissioning International, LLC to serve as the general contractor at Indian Point.¹⁵ Under the agreement, Comprehensive Decommissioning

Energy Rights Group's Letter Requesting a Hearing (Mar. 9, 2020) (ML20069K765); *Applicants' Answer to the State of New York's Motion for Leave to Amend Contentions NY-2 and NY-3* (Apr. 20, 2020) (ML20111A329); *Applicants' Answer Opposing Riverkeeper's November 6, 2020 Motion* (Nov. 12, 2020) (ML20317A329); *Applicants' Answer Opposing Riverkeeper, Inc.'s Motion to Supplement the Basis of its Contention* (Nov. 12, 2020) (ML20317A296). The NRC Staff, which is not required to participate in this proceeding, did not respond to either the hearing requests or New York's motion.

¹² Application at 1-2.

¹³ Cover Letter at 1-2.

¹⁴ *Id.*

¹⁵ *Id.* at 3. HDI holds a majority interest in Comprehensive Decommissioning International, while Kentz USA, a subsidiary of SNC-Lavalin Group, holds a minority interest. *Id.* at 2.

International will conduct day-to-day activities at the site, including decommissioning and spent fuel management activities, subject to HDI's oversight and control.¹⁶

HDI plans to complete transferring spent fuel to Indian Point's ISFSI as soon as practicable and promptly begin decontaminating and dismantling structures at the site, apart from the ISFSI.¹⁷ HDI estimates that it will complete radiological decommissioning so that the non-ISFSI portions of the site can be released for unrestricted use within fifteen years of the license transfers. For its decommissioning approach, HDI plans to use the DECON model, which involves four periods of work: (1) pre-shutdown planning/engineering and regulatory reviews, (2) plant deactivation and preparation for storage, (3) a period of plant safe storage with concurrent operations in the spent-fuel pool until the pool inventory is zero, and (4) decontamination and dismantlement of the radioactive portions of the facility, leading to license termination.¹⁸

HDI, Holtec IP2, and Holtec IP3 intend to fund decommissioning at Indian Point through the nuclear decommissioning trusts established for the Indian Point units, which Holtec IP2 and Holtec IP3 will own under the terms of the Entergy-Holtec transfer agreement.¹⁹ These entities expect that the trusts, which as of October 31, 2019, totaled approximately \$2.1 billion, will fully fund decommissioning activities at Indian Point. Accordingly, they intend to rely solely on the trusts to meet NRC requirements that a prospective licensee be financially qualified to carry out

¹⁶ *Id.* at 3.

¹⁷ *Id.*

¹⁸ See Application at 4 (stating that HDI plans to use the DECON model); see *a/so* "Revised Analyses of Decommissioning for the Reference Pressurized Water Reactor Power Station" (Final Report), NUREG/CR-5884, vol. 1 (Nov. 1995), at ch. 3 (ML14008A187) (NUREG/CR-5884) (describing the DECON model generally).

¹⁹ Cover Letter at 2-3.

its proposed activities and provide financial assurance to cover estimated decommissioning costs.²⁰

HDI outlined its plans for decommissioning Indian Point in a Post-Shutdown Decommissioning Activities Report (PSDAR) that it submitted separate from the license transfer application.²¹ As part of its PSDAR, HDI included a Decommissioning Cost Estimate (DCE) for Units 1, 2, and 3.²² According to HDI, the DCE demonstrates that the trusts will be sufficient to fund all required decommissioning activities at Indian Point. In addition, HDI estimates that the trusts will be adequate to fund site restoration and spent fuel management activities at Indian Point. But because these latter activities do not fall under the NRC's definition of decommissioning and under NRC rules a licensee cannot use a decommissioning trust to pay for non-decommissioning costs,²³ HDI has requested an exemption to allow it to use a portion of the Indian Point trusts for these activities.²⁴

²⁰ See 10 C.F.R. §§ 50.33(f), 50.75, 72.30. Access to the decommissioning trusts would allow Holtec IP2 and Holtec IP3 to provide financial assurance using the prepayment method described in 10 C.F.R. § 50.75(e)(1)(i) and 10 C.F.R. § 72.30(e)(1).

²¹ See "Post-Shutdown Decommissioning Activities Report" (PSDAR) and "DECON Site-Specific Decommissioning Cost Estimate" (DCE), attached to Letter from Andrea L. Sterdis, HDI, to NRC Document Control Desk (Dec. 19, 2019). The PSDAR, DCE, and cover letter are available at ML19354A698.

²² *Id.*

²³ See 10 C.F.R. § 50.82(a)(8)(i)(A) (withdrawals from the decommissioning trust fund may be made only for "expenses for legitimate decommissioning activities consistent with the definition of decommissioning in § 50.2"). As defined in 10 C.F.R. § 50.2, "decommission" means "to remove a facility or site safely from service and reduce residual radioactivity to a level that permits - (1) [r]elease of the property for unrestricted use and termination of the license; or (2) [r]elease of the property under restricted conditions and termination of the license."

²⁴ See "HDI Request for Exemptions from 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(1)(iv)" (Exemption Request), attached to Letter from Andrea L. Sterdis, HDI, to NRC Document Control Desk (Feb. 12, 2020) (ML20043C539). HDI states that without an exemption, "it would be forced to provide additional funding that would not be recoverable from the trust fund until the [Indian Point] operating licenses are terminated." *Id.* at 11 (unnumbered).

HDI estimates that it will spend approximately \$598 million for decommissioning and other activities at Indian Point Unit 1, \$702 million at Unit 2, and \$1002 million at Unit 3.²⁵ In the DCE, HDI provides site-specific estimates for these activities through the expected license termination date.²⁶ As part of its estimates, HDI includes an 18% contingency allowance to address “inherent uncertainty in the estimated quantities, unit rates, productivity, pricing, and schedule durations” relevant to its activities.²⁷ HDI also assumes that funds remaining in the decommissioning trusts will grow at a 2% annual real rate of return.²⁸ HDI estimates that approximately \$263 million will remain in the trusts after it has completed all required activities at Indian Point.²⁹

While HDI will be responsible for decommissioning Indian Point, Holtec IP2 will own Indian Point Units 1 and 2, with Holtec IP3 owning Unit 3.³⁰ As owners, Holtec IP2 and Holtec IP3 will hold title to the spent nuclear fuel at Indian Point and accede to Entergy’s rights and obligations under the Standard Contract for Disposal of Spent Nuclear Fuel and/or High Level Waste (Standard Contract).³¹ Under the Standard Contract, Holtec IP2 and Holtec IP3 expect

²⁵ Application, Attachment D, Encl. 1 at 1-4 (unnumbered).

²⁶ DCE at 100-05.

²⁷ *Id.* at 93-95. The exception is ISFSI decommissioning costs, for which HDI has included a 25% contingency allowance. Holtec states that each contingency allowance is “an integral part of the cost to complete the [Indian Point] decommissioning and is expected to be fully consumed.” *Id.* at 95.

²⁸ See DCE at 100-05, n.3; see also Exemption Request at 3 (unnumbered) (“A 2% annual real rate of return on the [decommissioning trust] funds as allowed by 10 CFR 50.75(e)(1)(i) is used in the analyses.”).

²⁹ DCE at 100-05.

³⁰ Application at 1.

³¹ See *id.* at 20. The text of the Standard Contract can be found at 10 C.F.R. § 961.11. The Standard Contract establishes the terms and conditions under which DOE will make available nuclear waste disposal services to the owners and generators of spent nuclear fuel and high-level radioactive waste. *Id.* § 961.1.

to recover their spent fuel management costs resulting from the Department of Energy's (DOE) breach of its contractual obligation to dispose of fuel that is currently stored at Indian Point.³² These costs are projected to total approximately \$632 million.³³

B. Financial Qualifications and Financial Assurance

Under the Atomic Energy Act of 1954, as amended, and our associated regulations, no power reactor or ISFSI license can be transferred without the NRC's prior written consent.³⁴ The NRC will approve a license transfer if it finds the proposed transferee to be qualified to hold the license and the transfer is otherwise consistent with applicable law, regulations, and Commission orders.³⁵ The license transfer review is limited to specific matters, including the financial and technical qualifications of the proposed transferee.³⁶

As part of its financial qualifications showing, an applicant must provide reasonable assurance that sufficient funds will be available to decommission the facility and carry out activities under the license.³⁷ NRC regulations outline several acceptable methods of providing financial assurance for decommissioning. The prepayment method, which Holtec IP2 and Holtec IP3 plan to use, involves depositing funds into an account kept segregated from the

³² Application at 20.

³³ DCE at 100-05, tbls.5-1a, 5-1b, and 5-1c, col. 3, "50.54(bb) Spent Fuel Management Cost."

³⁴ See Atomic Energy Act § 184, 42 U.S.C. § 2234 (providing that "[n]o license granted [under the Atomic Energy Act] shall be transferred . . . directly or indirectly, through transfer of control of any license to any person, unless the Commission shall . . . give its consent in writing"); 10 C.F.R. §§ 50.80(a), 72.50(a) (implementing this provision with respect to power reactor and ISFSI licenses).

³⁵ 10 C.F.R. § 50.80(c).

³⁶ See *id.* § 50.80(b)(1)(i).

³⁷ See *id.* §§ 50.33(f), 50.33(k)(1), 50.75, 50.80(b)(1)(i), 50.82(a), 72.30(b)-(c). Because power reactor operations will have permanently ceased at Indian Point prior to the proposed license transfer, the Applicants need not demonstrate financial qualifications to cover reactor operating costs. See *id.* § 50.33(f)(2); Application at 2, 17.

licensee's assets and outside of the licensee's administrative control in an amount sufficient to pay decommissioning costs at the time the licensee expects to permanently cease operations.³⁸

A licensee that has set aside prepaid funds based on a site-specific decommissioning cost estimate that involves a safe storage period may take credit for projected earnings on decommissioning funds, up to a 2% annual real rate of return, through the projected decommissioning period.³⁹

When evaluating a license transfer applicant's ability to meet financial obligations related to decommissioning, the NRC "will accept financial assurances based on plausible assumptions and forecasts, even though the possibility is not insignificant that things will turn out less favorably than expected."⁴⁰ We accept financial assurance based on plausible assumptions and forecasts because, particularly at the early stages of a decommissioning project, cost estimates are necessarily uncertain. This observation is as true for the site-specific cost estimates submitted by a license transfer applicant as it is for the site-specific estimates submitted by a current licensee that is preparing for and entering the decommissioning process. We see no reason to require that an applicant's cost estimates be more detailed, more certain, or more conservative than the site-specific estimates submitted by current NRC licensees, who may rely on plausible assumptions when preparing their estimates.

³⁸ See 10 C.F.R. § 50.75(e)(1)(i); Application at 17-18. Other methods of demonstrating financial assurance include, for example, a surety bond, a letter of credit, insurance, or a parent company guarantee. 10 C.F.R. § 50.75(e)(1)(iii).

³⁹ 10 C.F.R. § 50.75(e)(1)(i). Because this provision refers to a real rate of return, as opposed to a nominal rate, a licensee must adjust the rate for inflation.

⁴⁰ See *North Atlantic Energy Service Corp.* (Seabrook Station, Unit 1), CLI-99-6, 49 NRC 201, 222 (1999).

II. DISCUSSION

A. Intervention Requirements

To intervene in an NRC licensing proceeding, a petitioner must show standing and proffer at least one admissible contention.⁴¹ To show standing, a petitioner must show a concrete and particularized injury (actual or threatened) to an interest within the “zone of interests” protected by the Atomic Energy Act. The petitioner must further show that the alleged injury would be fairly caused by the proposed licensing action and is capable of being redressed by a favorable decision. Moreover, an organization that seeks representational standing must demonstrate how at least one of its members may be affected by the licensing action (often as a result of the member's activities on or near the site), must identify that member by name and address, and must show, preferably by affidavit, that the organization is authorized to request a hearing on behalf of that member.⁴²

NRC regulations in 10 C.F.R. § 2.309(f)(1) specify the requirements for an admissible contention. For each contention, a petitioner must explain the contention's basis and provide supporting facts or expert opinion on which the petitioner intends to rely in litigating the contention, together with references to specific sources or documents on which the petitioner intends to rely. To be admissible, a contention must fall within the scope of the proceeding and be material to the findings that the NRC must make for the proposed licensing action. The petitioner must identify the specific portions of the application that the petitioner disputes, along with the supporting reasons for each dispute. Or, if a petitioner believes that an application fails altogether to contain information required by law, the petitioner must identify each failure and

⁴¹ See 10 C.F.R. § 2.309(a), (d), (f); Hearing Notice, 85 Fed. Reg. at 3949 (referencing requirements for intervention).

⁴² See *GPU Nuclear, Inc. (Oyster Creek Nuclear Generating Station)*, CLI-00-6, 51 NRC 193, 202 (2000) (and authority cited therein).

provide supporting reasons for the petitioner's belief. We long have emphasized that these contention admissibility requirements are strict.⁴³ They are intended to ensure that adjudicatory hearings are triggered only by substantive safety or environmental issues that raise a supported dispute with the application on a matter material to the NRC's decision on the challenged action.

B. Petitions of New York and the Local Petitioners

Indian Point is located within the jurisdictional boundaries of New York State, the Town of Cortlandt, the Village of Buchanan, and the Hendrick Hudson School District. Accordingly, under our rules of practice, both New York and the Local Petitioners may be granted a hearing with no further demonstration of standing if they submit at least one admissible contention.⁴⁴

New York proposes three contentions in this proceeding. In Contention 1, New York argues that HDI's cost estimates are inadequate because HDI impermissibly assumes that the decommissioning trusts will grow at a 2% annual real rate of return.⁴⁵ In Contention 2, New York makes nine distinct arguments that HDI has underestimated various costs associated with license termination, site restoration, and spent fuel management activities.⁴⁶ In Contention 3, New York argues that neither HDI, Holtec IP2, nor Holtec IP3 has shown it is financially qualified to carry out NRC-licensed activities at Indian Point.⁴⁷ Finally, in its motion to amend its contentions, New York argues that market downturns related to the COVID-19 public health emergency further call into question whether the decommissioning trusts will provide sufficient

⁴³ See, e.g., *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 334 (1999) (explaining why the NRC tightened its contention admissibility standards in 1989).

⁴⁴ 10 C.F.R. § 2.309(h)(1), (2).

⁴⁵ New York Petition at 4-8.

⁴⁶ *Id.* at 8-54.

⁴⁷ *Id.* at 54-68.

funding to complete required activities at Indian Point and whether HDI, Holtec IP2, and Holtec IP3 are financially qualified to hold the Indian Point licenses.⁴⁸

The Local Petitioners propose two contentions. In Contention I, they argue that HDI bases its cost estimates on untenable assumptions, that Holtec and its subsidiaries are financially and technically unqualified to decommission Indian Point, and that HDI's exemption request creates an incentive for the company to cut corners during decommissioning.⁴⁹ In Contention II, the Local Petitioners argue that the NRC cannot approve the license transfer application without completing an environmental review under the National Environmental Policy Act (NEPA), 42 U.S.C. §§ 4321 *et seq.*⁵⁰

As we explain below, both New York's and the Local Petitioners' contentions are inadmissible. Because New York's and the Local Petitioners' contentions overlap substantially, we address their contentions together in this section.

1. New York's Contention 1

New York argues that HDI fails to provide reasonable assurance that funds will be available to decommission Indian Point because HDI impermissibly assumes a 2% annual rate of return on the decommissioning trusts.⁵¹ New York states that, without the benefit of the 2% rate of return, the current trust balances are approximately \$200 million less than HDI's own decommissioning cost estimates.⁵² According to New York, HDI therefore fails to show adequate decommissioning financial assurance.⁵³

⁴⁸ New York Motion at 2-12.

⁴⁹ Town, Village, and District Petition at 10-32.

⁵⁰ *Id.* at 32-42.

⁵¹ New York Petition at 4-8.

⁵² *Id.* at 6.

⁵³ 10 C.F.R. § 50.75(b)(1).

New York argues that under the NRC's rules an applicant can rely on a 2% return rate only if it has provided a site-specific estimate of decommissioning funding that is based on a period of safe storage.⁵⁴ New York notes that HDI bases its cost estimates on the DECON decommissioning model, which according to New York does *not* include a period of safe storage. New York contrasts the DECON model with the SAFSTOR model, which—as its name implies—includes a safe storage period.⁵⁵

As support for its argument, New York cites the 1996 Generic Environmental Impact Statement for License Renewal of Nuclear Plants (License Renewal GEIS), which describes the DECON and SAFSTOR models. New York cites a section of the License Renewal GEIS stating that DECON is a decommissioning approach wherein “decontamination [and] dismantlement [are performed] as rapidly after reactor shutdown as possible to achieve termination of the nuclear license.”⁵⁶ New York compares this statement with a description of SAFSTOR as a decommissioning model involving “a period of safe storage of the stabilized and defueled facility followed by final decontamination [and] dismantlement and license termination.”⁵⁷

New York also cites the *Federal Register* notice for a 2002 rulemaking concerning decommissioning trust provisions.⁵⁸ In the notice, the NRC states that a 2% return rate “can be

⁵⁴ New York Petition at 5-6 (citing 10 C.F.R. § 50.75(e)(1)(i)).

⁵⁵ *Id.* at 6.

⁵⁶ *Id.* (citing “Generic Environmental Impact Statement for License Renewal of Nuclear Plants: Main Report,” NUREG-1437, vol. 1 at § 7.2.2.1 (May 1996) (ML14024A360) (License Renewal GEIS)). The Staff updated the License Renewal GEIS in 2013. “Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Main Report” (Final Report), NUREG-1437, rev. 1, vols. 1-3 (June 2013) (ML13106A241, ML13106A242, ML13106A244) (2013 License Renewal GEIS).

⁵⁷ *Id.* (citing License Renewal GEIS at § 7.2.2.2).

⁵⁸ *Id.* at 8 (citing Decommissioning Trust Provisions; Final Rule, 67 Fed. Reg. 78,332, 78,338 (Dec. 24, 2002) (Decommissioning Trust Rule)).

used when a site-specific estimate is explicitly based on deferred dismantlement.”⁵⁹ New York argues that because the DECON model involves dismantling a reactor as rapidly as possible after shutdown, rather than after “deferred dismantlement,” the 2% return rate does not apply when using this model.⁶⁰

In its reply brief, New York further argues that finding the DECON model qualifies for a 2% return rate would render meaningless the language in section 50.75(e)(1)(i), which provides acceptable ways to demonstrate financial assurance for decommissioning. Section 50.75(e)(1)(i) states that the 2% return rate may be used “provided that the site-specific estimate is based on a period of safe storage that is specifically described in the estimate.”⁶¹ If the rate is available for the DECON model, New York argues, as a practical matter it would be available for *all* decommissioning models, rendering the “provided” clause in the rule meaningless.⁶²

We find that New York does not raise a genuine dispute with the application. The description of the DECON model in the License Renewal GEIS states explicitly that the model includes a “period of safe storage.”⁶³ While the SAFSTOR model includes an “extended period of safe storage,” section 50.75(e)(1) does not limit use of the 2% return rate to licensees proposing an extended storage period. Furthermore, even though the DECON model involves dismantling reactor components “as rapidly after reactor shutdown as possible,” that does not

⁵⁹ Decommissioning Trust Rule, 67 Fed. Reg. at 78,338.

⁶⁰ New York Petition at 7-8; *Reply in Support of the State of New York’s Petition for Leave to Intervene and for a Hearing* (Mar. 23, 2020) at 4-5 (New York Reply).

⁶¹ New York Reply at 3.

⁶² *Id.*

⁶³ License Renewal GEIS at § 7.2.2.1. See also NUREG/CR-5884 at § 3.3 (describing the DECON model’s safe-storage period and stating that “the safe storage of the laid-up plant and the [spent nuclear fuel] pool storage operations of Period 3 continue until the pool has been emptied”).

mean that the licensee will begin dismantling reactor components immediately. A licensee or applicant could propose a decommissioning approach that involves immediate dismantlement—for example, if an applicant proposes a license transfer that coincides with the end of a prior licensee’s safe storage period—but the DECON model does not mandate such an approach.

This interpretation does not render language in section 50.75(e)(1)(i) meaningless, as New York argues. To rely on a 2% return rate, a licensee or applicant must not only show that its decommissioning model involves a period of safe storage, but it must provide a “site-specific estimate” of decommissioning costs that includes “a period of safe storage that is specifically described.”⁶⁴ A licensee or applicant that certifies to the generic formula amount for decommissioning funding would not be able to rely on the 2% return rate for any safe storage period. A licensee or applicant that proposes a variant of the DECON model, or a decommissioning model not listed specifically in the License Renewal GEIS, that omits a period of safe storage also would not be able to assume a 2% real rate of return. While the GEIS discusses decommissioning models that are generally acceptable to the NRC, it does not foreclose licensees and applicants from proposing variants of the listed models, or entirely different models, to satisfy regulatory requirements.

New York’s reliance on the 2002 *Federal Register* notice is also unpersuasive. In the comment response that New York cites, the NRC addressed whether licensees certifying to generic formulas could continue using a 2% return rate into a SAFSTOR period.⁶⁵ The NRC stated that they could not, but it also explained that licensees *could* continue using the rate when “a site-specific estimate is explicitly based on deferred dismantlement.”⁶⁶ Read in context,

⁶⁴ 10 C.F.R. § 50.75(e)(1)(i).

⁶⁵ Decommissioning Trust Rule, 67 Fed. Reg. at 78,338.

⁶⁶ *Id.*

the NRC was rejecting a proposal that licensees certifying to generic formulas be allowed to use the 2% return rate, rather than stating that its use is limited to the SAFSTOR model. In any event, because the DECON model includes a period of deferred dismantlement, New York does not show how this language forecloses HDI's reliance on the 2% return rate.⁶⁷

In its application, HDI provides a site-specific estimate of decommissioning costs that is based on the DECON model.⁶⁸ HDI's reliance on the 2% return rate in this instance is consistent with both the language of section 50.75(e)(1)(i) and with prior cases where the NRC has allowed an applicant or licensee to rely on a 2% rate of return in connection with the DECON model.⁶⁹ Because New York does not raise a genuine dispute over whether HDI permissibly relies on a 2% return rate in connection with its cost estimates, we find Contention 1 inadmissible.

2. New York's Contention 2.A

Under the NRC's rules, a licensee may withdraw funds from a decommissioning trust only for decommissioning activities.⁷⁰ HDI, however, seeks to use approximately \$133 million of Indian Point's trust funds for site restoration activities and \$632 million for spent fuel

⁶⁷ See License Renewal GEIS at § 7.2.2.1 (explaining that "decontamination and dismantlement of the radioactive portions of the plant" is the *fourth* stage of the DECON model); see also NUREG/CR-5884 at § 3.3 (referring to this fourth stage as "deferred dismantlement").

⁶⁸ DCE at 55-56.

⁶⁹ See, e.g., Holtec Decommissioning International, LLC; Pilgrim Nuclear Power Station; Exemption, 84 Fed. Reg. 70,754 (Dec. 23, 2019); Holtec Decommissioning International, LLC; Oyster Creek Nuclear Generating Station; Exemption, 84 Fed. Reg. 30,247 (June 26, 2019); "Safety Evaluation by the Office of Nuclear Reactor Regulation Related to Amendment No. 185 to Facility Operating License No. DPR-39 and Amendment No. 172 to Facility Operating License No. DPR-48" (May 4, 2009) (ML090930063).

⁷⁰ See 10 C.F.R. § 50.82(a)(8)(i)(A) (stating that "[d]ecommissioning trust funds may be used by licensees if . . . [t]he withdrawals are for expenses for legitimate decommissioning activities consistent with the definition of decommissioning in § 50.2"); see also *id.* § 50.2 (defining "decommission").

management activities.⁷¹ HDI bases its cost estimates on the assumption that the NRC will grant an exemption allowing it to use funds for these purposes. Although HDI did not include an exemption request with its application, it submitted such a request on February 12, 2020, the same day New York filed its petition to intervene in this proceeding.⁷²

New York argues that, by relying on an exemption that has not been granted, HDI fails to show it is financially qualified to hold the Indian Point licenses and fund necessary activities at the site.⁷³ According to New York, until HDI obtains a final, non-appealable order granting the exemption, it must establish its financial qualifications and funding sources through other means.⁷⁴

As a threshold matter, we address whether Contention 2.A raises an issue within the scope of this license transfer proceeding. The Applicants argue that the NRC's review of its exemption request is a licensing action distinct from its license transfer request and that New York's contention thus falls outside the scope of this proceeding.⁷⁵ The Applicants cite an order in the *Vermont Yankee* license transfer proceeding, where an Atomic Safety and Licensing Board found that the licensee's request for an exemption to use trust funds for

⁷¹ Application, Attach. D at 2-4 (unnumbered); Exemption Request at tbls.1-3.

⁷² In October 2020, New York filed a letter to the Staff and the Commission with comments opposing HDI's exemption request. *Supplemental Comments in Opposition to Holtec's February 12, 2020 Request for Exemptions from 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(1)(iv)* (Oct. 7, 2020) (ML20281A635). New York's letter, which was served on the parties to this proceeding and filed after the deadline for submitting hearing requests, did not address the standards for contention admissibility. The Staff considered New York's comments in the context of its decision on HDI's exemption request, consistent with the Staff's treatment of other comments it received.

⁷³ New York Petition at 12-17.

⁷⁴ *Id.* at 13, 15.

⁷⁵ Applicants' Answer to New York Petition at 29-30.

non-decommissioning purposes was outside the scope of the proceeding.⁷⁶ New York, on the other hand, argues that by premising its license transfer application on an exemption it has not yet obtained, HDI has effectively conceded that the exemption is within the scope of the current proceeding.⁷⁷

We agree that HDI's exemption request is within the scope of this proceeding. HDI is seeking an exemption so that it can use trust funds for activities other than radiological decommissioning. HDI refers to these activities in its application and PSDAR, and it provides cost estimates for these activities in its DCE. Accordingly, the exemption request is intertwined with, and constitutes an integral part of, the license transfer application; New York's exemption-related arguments therefore fall within the scope of this proceeding.⁷⁸

The Board's order in *Vermont Yankee* does not support the Applicants' position. In *Vermont Yankee*, the trust-related exemption took effect independent of the NRC's decision on the licensee's amendment request; in fact, the Staff had granted the exemption while its review of the licensee's amendment request was still pending.⁷⁹ By contrast, the trust-related exemption HDI seeks here cannot take effect unless the NRC approves the license transfer application. HDI's exemption request is therefore comparable to two other exemption requests

⁷⁶ *Id.* (citing *Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), LBP-15-24, 82 NRC 68, 78 (2015), *vacated as moot*, CLI-16-8, 83 NRC 463 (2016)). When vacating for mootness, we neither approve nor disapprove a Board's ruling; we therefore took no position on the Board's decision. CLI-16-8, 83 NRC at 470.

⁷⁷ New York Petition at 13.

⁷⁸ An exemption request is not among the listed actions subject to a hearing opportunity under section 189a. of the Atomic Energy Act, 42 U.S.C. § 2239(a)(1)(A). Where a requested exemption raises questions that are material to a proposed licensing action and bear directly on whether the proposed action should be taken, however, a petitioner may propose exemption-related arguments in the licensing proceeding. See *Entergy Nuclear Vermont Yankee, LLC & Entergy Nuclear Operations, Inc.* (Vermont Yankee Nuclear Power Station), CLI-16-12, 83 NRC 542, 549 (2016) (citing *Private Fuel Storage, LLC* (Independent Spent Fuel Storage Installation), CLI-01-12, 53 NRC 459, 467 (2012)).

⁷⁹ *Vermont Yankee*, LBP-15-24, 82 NRC at 73-74 & nn.18, 19.

the Board addressed in *Vermont Yankee*. The Board found those exemption requests to be *within* the scope of the license-amendment proceeding because they were “completely dependent on the [license-amendment request]” and “cannot take effect unless and until the [request] is approved.”⁸⁰ We find that HDI’s exemption request and the license transfer application are similarly related.

For an issue within the scope of a proceeding to be an admissible contention, a petitioner also must satisfy the other requirements in section 2.309(f), including the requirement that it raise a genuine dispute with the applicant.

New York argues that an applicant cannot rely on a prospective exemption to support its cost estimates, but it does not provide support for this argument. In our license transfer adjudications, we have long held that financial assurance will be acceptable “if it is based on plausible assumptions and forecasts.”⁸¹ Moreover, the Staff has previously granted exemption requests that were similar to HDI’s request.⁸² Accordingly, to the extent New York argues generally that an applicant cannot rely on an exemption to support its cost estimates, the State does not raise a genuine dispute with the application.

Nor does New York raise a genuine dispute with HDI’s exemption request. HDI did not submit its request until the same day New York filed its petition, and the State therefore could not have been expected to challenge the merits of the request in its petition. To the extent New York asserts there is a genuine issue about whether the NRC should grant HDI an exemption,

⁸⁰ *Id.* at 82.

⁸¹ *Seabrook*, CLI-99-6, 49 NRC at 222.

⁸² See Applicants’ Answer to New York Petition at 28 nn.120-24 (citing five examples of the Staff granting similar exemptions).

however, the State had the opportunity to move to amend its contention, or submit a new contention, based on the exemption request.⁸³ New York has not done so.

New York also argues that the NRC should not grant HDI's exemption request unless Holtec IP2 and Holtec IP3 commit to using DOE recoveries under the Standard Contract either to replenish trust funds or defray decommissioning and site restoration expenses.⁸⁴ According to New York, these recoveries could thereby "serve as the collateral necessary for the additional financial assurance required."⁸⁵ New York states that when the Staff granted a similar exemption to the licensee for Vermont Yankee, it conditioned the exemption on the licensee replenishing the trust with DOE recoveries.⁸⁶

New York does not show, however, that its arguments present a genuine dispute regarding the adequacy of either the exemption request, the DCE, or the license transfer application. New York cites financial assurance requirements for the annual status reports a licensee must provide, but these requirements do not apply to a licensee's initial estimates of decommissioning funding needs in its PSDAR.⁸⁷ Furthermore, although the NRC conditioned the Vermont Yankee exemption on the licensee using a portion of its DOE recoveries to replenish trust funds, New York does not raise a genuine issue over whether a similar condition is necessary here. The Staff imposed the condition on the Vermont Yankee licensee based on

⁸³ 10 C.F.R. § 2.309(c).

⁸⁴ New York Petition at 13-14, 16.

⁸⁵ *Id.* at 17 (citing 10 C.F.R. § 50.82(a)(8)(vi) and (vii)(C)).

⁸⁶ New York Reply at 24 (citing "Safety Evaluation by the Office of Nuclear Reactor Regulation and Office of Nuclear Material Safety and Safeguards Related to Request for Direct and Indirect Transfers of Control of Renewed Facility Operating License No. DPR-28 and the General License for the Independent Spent Fuel Storage Installation" (Oct. 11, 2018) at 13 (ML18242A639)).

⁸⁷ 10 C.F.R. § 50.82(a)(4)(i), (a)(8)(vi), (vii)(C).

the particular facts involved in that review, and New York does not show that the same or similar issues may arise in connection with HDI's request.

Because New York does not raise a genuine dispute over whether HDI properly relied on an exemption when developing its cost estimates, Contention 2.A is inadmissible.

3. New York's Contention 2.B and Local Petitioners' Contention 1.A

New York and the Local Petitioners argue that HDI has not fully considered the cost of remediating additional contamination that may be found at Indian Point. First, they argue that HDI's cost estimates are inadequate because HDI has not accounted for numerous credible contamination scenarios. Second, they argue that although HDI's cost estimates include a contingency allowance to cover unforeseen events, HDI has not shown the contingency will be enough to cover the scenarios they identify.

a. Additional Contamination

New York and the Local Petitioners initially argue that, because HDI has not yet fully characterized the Indian Point site and evaluated all potential contamination scenarios, the license transfer application and DCE are necessarily inadequate.⁸⁸ These arguments do not, however, raise a material dispute with the application because the NRC does not require site characterization to be completed at this stage in the decommissioning process. Rather, a licensee need not provide site characterization results to the NRC until it submits its license termination plan. This plan, which a licensee must submit at least two years before its proposed license termination date, will include site characterization results and updated cost estimates for

⁸⁸ New York Petition at 18, 20-21; *Declaration of Timothy B. Rice* (Feb. 7, 2020) ¶¶ 4, 17-19, 25-27 (Rice Declaration); *Declaration of George W. Heitzman* (Feb. 5, 2020) ¶¶ 15, 17 (Heitzman Declaration); *Declaration of Daniel J. Evans* (Feb. 4, 2020) ¶ 24 (Evans Declaration); see also Town, Village, and District Petition at 17 (citing 10 C.F.R. § 50.82(a)(4)(i) and arguing that HDI was required to more fully characterize the Indian Point site to inform its cost estimates).

the remaining decommissioning activities.⁸⁹ Accordingly, to the extent New York and the Local Petitioners challenge HDI's cost estimates because site characterization has not yet been completed, we reject those arguments as impermissible challenges to the NRC's regulations.⁹⁰

New York and the Local Petitioners also identify specific contamination scenarios they assert may exist at Indian Point but which HDI has not considered in developing its cost estimates. Four of these scenarios involve asserted radiological contamination: (1) leakage of contaminated water from the spent-fuel pools at Unit 1; (2) leakage of tritiated water from the spent-fuel pool at Unit 2; (3) subsurface contamination in the soils, fill, groundwater, and bedrock around buildings; and (4) contamination involving the floor-drain systems in Units 1 and 2.⁹¹ In addition, New York and the Local Petitioners argue that various incidents may have resulted in non-radiological contamination that HDI has failed to account for in its cost estimates. These scenarios involve the following: (5) potential contamination related to "a significant number of non-radiological spills, fires, and other contamination-releasing incidents"; (6) contamination resulting from approximately 258 petroleum spills at Indian Point since 1986; (7) the effects of a large transformer fire at Unit 2, which resulted in the loss of approximately 10,000 gallons of dielectric fluid; (8) a transformer fire at Unit 3 that also resulted in the loss of dielectric fluid and which was extinguished with firefighting foam containing hazardous substances; and (9) the likelihood that, given Indian Point's age, its buildings have coatings,

⁸⁹ 10 C.F.R. § 50.82(a)(9)(ii)(A), (F); *see also* PSDAR at 13 (committing to submitting a license termination plan to the NRC at least two years before the anticipated date of partial site release). Interested persons may seek an adjudicatory hearing challenging the license termination plan, including the licensee's site characterization results and its updated DCE.

⁹⁰ *See* 10 C.F.R. § 2.335(a).

⁹¹ *Id.* at 21-23; Rice Declaration ¶¶ 4, 13-22, 25, 28; Heitzman Declaration ¶¶ 9-13; *see also* Town, Village, and District Petition at 17-18 (arguing that HDI's cost estimates do not consider radiologically contaminated groundwater associated with the Unit 1 and Unit 2 spent-fuel pools that was discovered in 2005).

paint, tiles, and other components that contain hazardous substances.⁹² Finally, the Local Petitioners argue that HDI's cost estimates are inadequate because they fail to consider the potential costs associated with a radiological accident at Indian Point.⁹³

New York and the Local Petitioners argue that the costs associated with remediating undiscovered contamination can be substantial. New York refers to the decommissioning experiences at Maine Yankee and Connecticut Yankee, where it states that the discovery of additional contamination required expensive characterization and remediation.⁹⁴ New York states that unless the NRC requires Holtec IP2 and Holtec IP3 to provide additional financial assurance as a condition of approving its license transfer application, HDI could experience significant cost overruns that may delay or prevent it from decommissioning Indian Point.⁹⁵

Regarding their arguments that HDI has not adequately considered radiological contamination, neither New York nor the Local Petitioners point to any specific information that Entergy or Holtec allegedly failed to consider when preparing the license transfer application. Entergy, the current licensee for Indian Point, has submitted extensive groundwater-monitoring information to the NRC, and neither New York nor the Local Petitioners argue that the

⁹² New York Petition at 23-25; Heitzman Declaration ¶¶ 10, 12, 15, and Exhibit D at 2, 8; *Declaration of Warren K. Brewer* (Feb. 11, 2020) ¶¶ 24-26 (Brewer Declaration); Evans Declaration ¶ 25. New York also cites a March 26, 2012, Department of Environmental Conservation consent order to support its arguments regarding contamination related to the fire at Unit 2. New York Petition at 23 n.64. The Local Petitioners do not refer to any specific scenarios involving non-radiological contamination, but rather argue that because Holtec has not completed a full site characterization at Indian Point, it has likely overlooked the existence of such contamination. Town, Village, and District Petition at 18-19.

⁹³ Town, Village, and District Petition at 20.

⁹⁴ New York Petition at 25-26.

⁹⁵ *Id.* at 26.

Applicants overlooked any of this information.⁹⁶ Furthermore, HDI states that it based its cost estimates in part “on a review of [Indian Point] 1, 2 & 3 decommissioning records required by 10 CFR 50.75(g), and the draft Historical Site Assessment (HSA) prepared for [Entergy].”⁹⁷ The HSA discusses all the radiological contamination sources New York and the Local Petitioners identify—including contamination involving groundwater, subsurfaces, and floor-drain systems⁹⁸—and neither petitioner identifies any likely contamination source that the HSA overlooks or mischaracterizes.

New York and the Local Petitioners also argue that HDI underestimates the *extent* of groundwater contamination and cite several instances where the discovery of additional contamination at other sites increased decommissioning costs.⁹⁹ But the mere possibility of additional contamination—without any specific information regarding its scope or the remediation costs expected at Indian Point—is not enough to call into question HDI’s cost estimates. Here, New York and the Local Petitioners have not raised a genuine issue as to whether HDI’s assumptions regarding radiological contamination are plausible. If uncertain events, such as the discovery of significant new contamination, result in cost increases, the Indian Point licensee will need to update its cost estimates when it submits its annual status report. And, if any such event affects the licensee’s ability to either complete decommissioning or safely manage spent fuel, the licensee will need to provide additional financial assurance.¹⁰⁰

⁹⁶ See *Indian Point Groundwater Contamination*, <https://www.nrc.gov/info-finder/reactors/ip/ip-groundwater-leakage.html> (last visited July 17, 2020).

⁹⁷ DCE at 63 (referring to Historical Site Assessment for Indian Point Energy Center, Technical Support Document (TSD) No. 19-002, rev. 2 (Apr. 30, 2019)).

⁹⁸ HSA at 41-49.

⁹⁹ New York Petition at 25-26; Town, Village, and District Petition at 18-19.

¹⁰⁰ 10 C.F.R. § 50.82(a)(8)(vi). Any cost increases related to a significant radiological accident, a scenario the Local Petitioners raise, would likewise be reflected in the updated DCE.

New York and the Local Petitioners also argue that HDI has failed to adequately consider non-radiological contamination at Indian Point related to spills, fires, and building components. Here too, however, the HSA discusses these very events, and New York and the Local Petitioners do not identify any specific deficiency with the HSA's analysis. New York suggests that, because HDI did not attach the HSA to the license transfer application or its PSDAR, the State lacked the opportunity to test the thoroughness of the assessment.¹⁰¹ The HSA is publicly available, however, with a copy maintained on a New York state-agency website.¹⁰² Under the NRC's rules of practice, both New York and the Local Petitioners had an obligation to review this information and, to the extent they disagreed with the HSA's analysis, set forth their disagreement in their petitions.¹⁰³ Because they did not do so, their arguments do not raise a genuine dispute with the application.

b. Contingency Allowance

New York also challenges HDI's 18% contingency allowance for decommissioning and related work at Indian Point.¹⁰⁴ New York argues that remediating newly discovered contamination at Indian Point falls outside the scope of HDI's decommissioning plans and that the contingency allowance is not intended to cover such "out-of-scope" work.¹⁰⁵ New York argues alternatively that if these allowances are intended to cover such work, the amount of the resulting contingency allowance—18% of decommissioning costs—is unreasonably low.¹⁰⁶

¹⁰¹ New York Reply at 13.

¹⁰² See <http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId=%7BF1279F3E-2BEB-4066-8911-25EF3F1318C2%7D>.

¹⁰³ See *Northern States Power Co.* (Prairie Island Nuclear Generating Plant, Units 1 and 2), CLI-10-27, 72 NRC 481, 496 (2010)).

¹⁰⁴ New York Petition at 17-20; Brewer Declaration ¶¶ 16-17.

¹⁰⁵ New York Petition at 19-20.

¹⁰⁶ *Id.* at 20.

We do not agree with New York's claim that HDI's contingency allowance fails to account for the discovery of additional contamination. The DCE states that HDI's contingency allowance accounts for "estimate uncertainty," which is a function of various factors that include "[e]xpected site conditions (physical and radiological)."¹⁰⁷ The DCE also states that HDI has included an "uncertainty allowance" in its baseline cost and schedule "to cover ill-defined work scope or elements of costs and schedules expected to be incurred, which cannot be explicitly foreseen or estimated because of a lack of complete, accurate or detailed information."¹⁰⁸ These statements, which appear under the "Contingency" discussion in the DCE, show that the contingency allowance is intended to cover costs associated with the discovery of additional contamination.¹⁰⁹

We also reject New York's argument that if the allowance is intended to cover such costs, it is unreasonably low. New York states that the contingency allowances in Entergy's PSDAR from 2010, which excluded out-of-scope work, were only slightly lower than HDI's (16.9% on average, according to New York, as compared to HDI's 18%).¹¹⁰ This difference does not, however, raise a genuine dispute over whether HDI's allowance is unreasonably low. Because Entergy assigned *no* value to out-of-scope work—finding there were insufficient data to do so—it would be speculative to conclude that, had Entergy done so, the resulting

¹⁰⁷ DCE at 93.

¹⁰⁸ *Id.* at 94.

¹⁰⁹ The contingency is not intended to address *all* work that might be considered "out-of-scope," but it appears broad enough that it would generally cover the additional contamination scenarios New York and Local Petitioners describe in their petitions.

¹¹⁰ New York Petition at 20; Brewer Declaration ¶ 16 (citing "Preliminary Decommissioning Cost Analysis for the Indian Point Energy Center, Unit 3," at 6-7 (Dec. 2010) (ML103550608); "Preliminary Decommissioning Cost Analysis for the Indian Point Energy Center, Unit 1" at 7-8 and "Preliminary Decommissioning Cost Analysis for the Indian Point Energy Center, Unit 2" at 6-7, attached as Encl. 1 and Encl. 2 to Letter from J.E. Pollock, Indian Point Energy Center, to NRC Document Control Desk (Oct. 23, 2008) (ML083040378)).

contingency allowance would have differed materially from HDI's allowance.¹¹¹ Furthermore, while not dispositive, HDI's contingency allowance falls within the range of allowances that have been commonly added to site-specific decommissioning cost estimates.¹¹²

The Local Petitioners also challenge HDI's contingency allowance.¹¹³ They argue that because the PSDAR neither contains the risk-simulation analysis HDI used to develop its contingency nor identifies the "discrete risk events" underlying that analysis, the PSDAR lacks sufficient information to show how HDI decided on a contingency allowance of 18%.¹¹⁴ The Local Petitioners also argue that HDI's contingency allowance is not a "genuine contingency" because HDI itself has stated that it expects the contingency allowance to be "fully consumed" during the decommissioning process.¹¹⁵ According to the Local Petitioners, because HDI has not included a genuine contingency allowance in its cost estimates, it is unable to show that it has accounted for unforeseen conditions or expenses that may arise during decommissioning, as required by the NRC's rules.¹¹⁶

¹¹¹ See Letter from J.E. Pollock, Indian Point Energy Center, to NRC Document Control Desk, (Oct. 23, 2008), Encl. 2 at 8 (ML083040378) ("This cost study does not add any additional costs to the estimate for financial risk, since there is insufficient historical data from which to project future liabilities.").

¹¹² See, e.g., Crystal River Nuclear Generating Station Unit 3 Site Specific Decommissioning Cost Estimate (May 2018), app. C, tbl.C (last page) (ML18178A181) (18.2% contingency allowance); Fort Calhoun Station Site-Specific Decommissioning Cost Estimate (attached to PSDAR) (Feb. 2017), app. C, tbl.C (last page) (ML17089A59) (16.33% contingency allowance); Three Mile Island Unit 1 Site-Specific Decommissioning Cost Estimate (12.9% contingency allowance), § 6.1, at 19 (April 2019) (ML19095A010) (16.33% contingency allowance); Decommissioning Cost Analysis for the Monticello Nuclear Generating Plant, app. D, tbl.D (last page) (Oct. 2014) (ML16005A105) (16.94% contingency allowance).

¹¹³ Town, Village, and District Petition at 21-22.

¹¹⁴ *Id.* at 21.

¹¹⁵ *Id.* at 21-22 (citing DCE at 95).

¹¹⁶ *Id.* at 22 (citing 10 C.F.R. § 50.82(a)(8)(i)(B)). The Local Petitioners also argue that the lack of a genuine contingency allowance prevents Holtec from adequately demonstrating that it

Although the Local Petitioners argue that HDI has not provided enough information to show how it arrived at its 18% contingency allowance, HDI summarizes its methodology in its DCE.¹¹⁷ The Local Petitioners argue that HDI should have included its risk-simulation analysis with the license transfer application or listed the discrete risk events underlying its analysis, but the Local Petitioners cite no legal basis for their argument.¹¹⁸ In fact, there is no NRC requirement that an applicant include this information as part of its application.

We likewise find no merit in the Local Petitioners' argument that HDI's contingency allowance is not a "genuine contingency" because HDI expects it to be fully consumed. The Local Petitioners do not provide adequate support for their arguments. They cite 10 C.F.R. § 50.82(a)(8)(i)(B), but that provision applies to withdrawals from the decommissioning trust fund, not to an applicant's cost estimates.¹¹⁹ In addition, they make no more than a conclusory argument that HDI, Holtec IP2, and Holtec IP3 cannot meet the NRC's financial qualification standards.¹²⁰ The Local Petitioners therefore fail to raise a genuine issue as to whether the license transfer application lacks necessary information.

4. New York's Contention 2.C

New York argues that while HDI based its cost estimates on "current and/or assumed" requirements, including the NRC's 25-millirem/year license termination standard, HDI will

possesses the financial qualifications necessary to safely decommission Indian Point. *Id.* (citing 42 U.S.C. § 2232(a) and 10 C.F.R. § 50.80(c)(1)).

¹¹⁷ DCE at 93-95.

¹¹⁸ Town, Village, and District Petition at 21.

¹¹⁹ *See id.* at 22 (citing 10 C.F.R. § 50.82(a)(8)(i)(B), which applies to withdrawals from a decommissioning trust fund, not to an applicant's cost estimates).

¹²⁰ *See id.* (stating that "by failing to account for unexpected costs, Holtec has not adequately demonstrated that it possesses the financial qualifications necessary to safely decommission [Indian Point]").

foreseeably be required to comply with more stringent state law requirements, which will increase decommissioning costs. Specifically, New York argues that HDI fails to account for obligations flowing from the following: (1) the 2000 Con Edison-to-Entergy asset purchase and sale agreement for Units 1 and 2 and the contemporaneous Public Service Commission orders approving that transaction; (2) applicable New York State Department of Environmental Conservation (DEC) remedial standards and guidance values; and (3) a contractual obligation owed to the New York State Energy Research and Development Authority to remediate the leased Indian Point outfall structure.¹²¹ According to New York, because HDI does not account for these obligations, it likely underestimates site restoration costs, thereby failing to comply with NRC rules.¹²² New York states that the need to comply with stricter state law remedial standards has led to significant cost increases at other plants, such as Connecticut Yankee.¹²³

Although New York argues that HDI's site restoration obligations will involve work beyond that described in the PSDAR and DCE, whether HDI will need to complete such work—and the extent of any such work—will likely depend on the outcome of various contractual, administrative, or judicial proceedings. For example, an attachment to the license transfer application refers to a “State Agreement” involving New York’s DEC that will apparently address cleanup standards at Indian Point.¹²⁴ New York does not state that this agreement has been finalized or cite any documentation suggesting that the matters it identifies in its Petition, and which it claims will result in additional site restoration obligations for HDI, have been resolved.

¹²¹ *Id.* at 28-31.

¹²² *Id.* at 27 (citing 10 C.F.R. §§ 50.33(f), 50.75(b), 50.75(e)(1)(i)).

¹²³ *Id.* at 32.

¹²⁴ Application, Attach. B at 63-64 (Section 8.1(h)), 101 (Section 11.1(282)).

Because the scope of HDI's state-related site restoration obligations is currently uncertain, we are unable to find that New York has raised a genuine issue over whether the license transfer application needed to address these prospective obligations.¹²⁵ At the license transfer stage, the NRC conducts a threshold review to ensure that the prospective licensee has based its cost estimates on plausible assumptions and forecasts. These estimates will not be inadequate even if "the possibility is not insignificant that things will turn out less favorably than expected."¹²⁶ Accordingly, even if the prospective obligations New York identifies may require Holtec IP2 or Holtec IP3 to supplement financial assurance in the future, New York has not shown there is a genuine issue about whether these obligations currently render HDI's cost estimates implausible.¹²⁷ Therefore, these prospective obligations do not in themselves support admitting Contention 2.C.

Furthermore, New York has not raised a genuine issue on whether such obligations would fall outside HDI's 18% contingency allowance. New York argues that HDI has likely underestimated the cost of complying with state law requirements at the site restoration phases, but the DCE states that its contingency allowance accounts for factors that include uncertainty in "Stakeholder/regulatory requirements."¹²⁸ This category appears to cover the types of prospective obligations to which New York refers. Because New York does not address this language in the DCE, it fails to raise a genuine dispute over whether the contingency will cover the obligations specified in Contention 2.C.

¹²⁵ See Applicants' Answer to New York Petition at 48-49.

¹²⁶ See *Seabrook*, CLI-99-6, 49 NRC at 222.

¹²⁷ Furthermore, if, due to intervening obligations, the remaining decommissioning funds prove insufficient to cover decommissioning costs, the licensee must commit in its annual status report to providing additional financial assurance to cover the remaining costs. 10 C.F.R. § 50.82(a)(8)(vi).

¹²⁸ DCE at 93.

New York also argues more generally that HDI's cost estimates are inadequate because HDI "fails to explain what state-law standards will guide the scope of [its site restoration] work, or what the work will actually entail."¹²⁹ The PSDAR states, however, that HDI will decommission Indian Point to meet the NRC's unrestricted release criteria,¹³⁰ and New York does not point to any requirement that an applicant additionally discuss state law standards that might apply to certain site restoration activities. Furthermore, although HDI does not specifically describe its anticipated site restoration activities in its application, the DCE states that HDI relied on the NRC's guidance in NUREG/CR-5884 when developing its cost estimates.¹³¹ That guidance includes Appendix L, "Estimated Non-Radioactive Demolition and Site Restoration Costs for the Reference PWR Power Station," which lists the primary activities and costs associated with site restoration work.

In conclusion, we find that these arguments do not provide a basis for admitting Contention 2.

5. *New York's Contention 2.D*

New York argues that HDI fails to address likely costs related to two aging natural-gas pipelines near Unit 3, its spent fuel pool, and other radiation-containing structures.¹³² According to New York, HDI's contractors will not be able to safely conduct activities in or around Unit 3 until HDI has rigorously evaluated the structural integrity of the pipelines. New York suggests that HDI has not conducted such an evaluation, and New York states that the guidance in the

¹²⁹ New York Petition at 27.

¹³⁰ PSDAR at 37.

¹³¹ DCE at 91 (referring to NUREG/CR-5884).

¹³² New York Petition at 33-37.

Generic Environmental Impact Statement on Decommissioning (Decommissioning GEIS),¹³³ upon which HDI relies in portions of the PSDAR, does not address potential impacts associated with such pipelines.¹³⁴

HDI bases its estimates on its PSDAR, which states that HDI's decommissioning planning will include a review of existing Indian Point policies, programs, and procedures.¹³⁵ In its Answer to New York's Petition, the Applicants state that "[Indian Point's] existing policies, programs, and procedures address industrial operation of and safety issues related to the gas pipelines,"¹³⁶ and New York does not dispute this statement in its reply brief.¹³⁷ The PSDAR further states that HDI will conduct job-hazard analyses at the decommissioning planning stage, which would likewise be expected to address pipeline-safety issues.¹³⁸ Accordingly, even though the guidance in the Decommissioning GEIS does not explicitly refer to environmental impacts associated with pipeline-safety issues, New York has not raised a genuine dispute over whether HDI's financial analysis overlooks these issues.¹³⁹

Apart from whether HDI has considered pipeline safety as a general matter, New York points to two specific scenarios it asserts HDI has failed to consider. New York states that explosives are often used to soften reactor containment structures but that the proximity of the

¹³³ "Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities" (Final Report), NUREG-0586, Supplement 1, vols. 1-2 (Nov. 2002) (ML023470327 (package) (Decommissioning GEIS)).

¹³⁴ New York Petition at 34.

¹³⁵ PSDAR at 8.

¹³⁶ Applicants' Answer to New York Petition at 59.

¹³⁷ In fact, New York chose not to respond to the Applicants' Answer or address this basis for Contention 2 further in its reply.

¹³⁸ PSDAR at 8-9.

¹³⁹ See 10 C.F.R. § 2.309(f)(1)(vi).

aging pipelines may rule out this approach at Unit 3 and raise decommissioning costs.¹⁴⁰ New York also argues that HDI fails to address limitations on moving heavy equipment and debris near the pipelines.¹⁴¹ Related to this second scenario, New York further claims that HDI has not shown it will implement policies designed to protect the pipelines from damage involving the movement of heavy equipment or debris.¹⁴²

Here too, New York has not raised a genuine dispute with the license transfer application. New York does not identify any section of the application or supporting documents stating that HDI intends to use explosives when dismantling the containment structures at Indian Point. New York also does not dispute HDI's statement that the use of explosives is not among the "standard construction-based techniques" it will employ during demolition of the reactor containments.¹⁴³ With respect to New York's argument that HDI fails to address limitations on moving heavy equipment near the pipelines, the PSDAR states that "[a]ll dismantlement, demolition, and waste staging activities are envisioned to be conducted within the operational area of the site."¹⁴⁴ HDI refers to the "operational area" at Indian Point as the Protected Area and Security Owner-Controlled Area.¹⁴⁵ New York does not challenge HDI's statement that demolition-related activities will be limited to this area or explain why (setting aside the use of explosives) activities within this area would be likely to raise pipeline-safety concerns.¹⁴⁶ Thus,

¹⁴⁰ New York Petition at 33; Brewer Declaration ¶ 14.

¹⁴¹ New York Petition at 33-34; Brewer Declaration ¶ 14.

¹⁴² New York Petition at 33-34.

¹⁴³ Applicants' Answer to New York Petition at 55-56 (citing PSDAR at 39).

¹⁴⁴ PSDAR at 24.

¹⁴⁵ Applicants' Answer to New York's Petition at 56.

¹⁴⁶ New York does not argue that the pipelines of concern are within Indian Point's "operational area," but rather states that they are within 400 feet of Unit 3. New York Petition at 34.

New York does not raise a genuine dispute with the license transfer application related to the demolition scenarios it identifies.

New York further argues that, if HDI anticipates using the existing dock at Indian Point to move large components by barge, it must ensure that dredging or river-transportation-related activities do not adversely affect the pipelines where they cross under the Hudson River.¹⁴⁷ This argument does not, however, identify any specific deficiency in the application or supporting documents. New York does not, for example, identify any portion of the PSDAR that arguably should have addressed the possibility of barge traffic related to decommissioning nor assert that the DCE fails to account for this possibility.

Moreover, New York has not supported its underlying claim in Contention 2.D, which is that HDI's cost estimates are inadequate.¹⁴⁸ To be admissible, a contention must be supported by reference to facts or expert opinion, and it must also be material to the findings the NRC must make to support the action that is involved in the proceeding.¹⁴⁹ Here, New York does not provide that support, such as quantifying the increased costs resulting from the pipeline-safety restrictions it argues HDI failed to consider. New York therefore does not raise an issue as to whether HDI's cost estimates are materially inaccurate.

Finally, New York argues that, to the extent HDI has failed to analyze safety, engineering, or logistical issues associated with the pipelines, it has not established that the company or its contractors are technically and financially qualified to decommission Indian Point.¹⁵⁰ While we agree that an inadequate analysis of pipeline-related costs could potentially

¹⁴⁷ *Id.* at 37.

¹⁴⁸ *See id.* at 33.

¹⁴⁹ 10 C.F.R. § 2.309(f)(1)(iv), (v).

¹⁵⁰ New York Petition at 34.

be relevant to HDI's qualifications, for the reasons stated above we find that New York has not raised a genuine dispute regarding that analysis.

For these reasons, we find that these arguments do not support admitting Contention 2.D.

6. *New York's Contention 2.E and Local Petitioners' Contention 1.A*

New York and the Local Petitioners argue that HDI unreasonably assumes DOE will begin transferring spent nuclear fuel from Indian Point by 2030 and complete removing this fuel by 2061.¹⁵¹ They claim HDI's assumption is unreasonable because DOE has not started constructing a spent fuel storage facility, Congress has not funded such construction, and DOE presently has no statutory authority to accept spent fuel for storage.¹⁵² New York and the Local Petitioners also refer to a DOE strategy assessment in which DOE projects that a permanent spent-fuel repository will not be available until "at least 2048."¹⁵³ In addition, they refer to the Generic Environmental Impact Statement for the Continued Storage Rule (Continued Storage GEIS), which states that the "most likely" timeframe for the permanent disposal of spent fuel involves sixty years of continued onsite storage following reactor shutdown.¹⁵⁴ According to New York and the Local Petitioners, HDI's unreasonable assumptions render its cost estimates

¹⁵¹ New York Petition at 37-40; Town, Village, and District Petition at 12-16.

¹⁵² New York Petition at 38-39; Town, Village, and District Petition at 12-13.

¹⁵³ New York Petition at 39 n.134 (citing U.S. Department of Energy, "Strategy for the Management and Disposal of Used Nuclear Fuel and High-Level Radioactive Waste" (Jan. 2013), at 2, 7); Town, Village, and District Petition at 12.

¹⁵⁴ New York Petition at 39 n.135 (citing "Generic Environmental Impact for Continued Storage of Spent Nuclear Fuel" (Final Report), NUREG-2157, vol. 1 (Sept. 2014), at p. xxx (ML14196A105) (Continued Storage GEIS)). The Local Petitioners do not cite the Continued Storage GEIS directly, but rather the Federal Register notice for the continued-storage rule, which refers to the Continued Storage GEIS as the regulatory basis for the rule. Town, Village, and District Petition at 13 (citing Continued Storage of Spent Nuclear Fuel; Final Rule, 79 Fed. Reg. 56,238, 56,245 (Sept. 19, 2014)).

inadequate because they fail to address the likelihood HDI will need to maintain spent fuel at Indian Point longer than anticipated.

We first address New York and the Local Petitioners' challenge to HDI's estimate that DOE will begin transferring spent fuel from Indian Point in 2030. HDI bases its estimate on the same DOE strategy assessment that New York and the Local Petitioners cite but instead focuses on DOE's projection that an interim (as opposed to a permanent) storage facility will be available by 2025.¹⁵⁵ HDI then adjusts the start date for transfers to an interim storage facility outward by five years, resulting in a projected start date in 2030.¹⁵⁶

We find that New York and the Local Petitioners have not raised a genuine issue about whether HDI's projected start date for spent fuel transfer is plausible. The NRC currently has two separate applications for privately owned interim storage facilities before the agency.¹⁵⁷ While these applications are still under review, we find the assumption that by 2030 a storage facility to receive spent fuel from Indian Point will be available is plausible.¹⁵⁸ We have found

¹⁵⁵ DCE at 64.

¹⁵⁶ *Id.*

¹⁵⁷ See Letter from John McKirgan, NRC, to Jeffrey D. Isakson, Interim Storage Partners LLC, "Interim Storage Partners LLC's Application for a Specific Independent Spent Fuel Storage Installation License for the Waste Control Specialists Consolidated Interim Storage Facility for Spent Nuclear Fuel – Revised Review Schedule" (July 1, 2019) (ML19182A107); Letter from John McKirgan, NRC, to Kimberly Manzione, Holtec International, "Holtec International's Application for a Specific Independent Spent Fuel Storage Installation License for the Hi-Store Consolidated Interim Storage Facility for Spent Nuclear Fuel – Revised Review Schedule" (July 1, 2019) (ML19182A147).

¹⁵⁸ New York states that HDI relies on an assumption that DOE will take "illegal action" by transferring spent fuel without authorization. New York Reply at 16. The alternative, and more plausible, interpretation of HDI's statements is that it expects that DOE will receive authorization to transfer spent fuel.

financial assurance to be acceptable if it is based on plausible assumptions and forecasts, even if “the possibility is not insignificant that things will turn out less favorably than expected.”¹⁵⁹

We also find that New York and the Local Petitioners have not raised a genuine issue regarding HDI’s estimate that all spent fuel will be removed from Indian Point by 2061. Even if DOE’s projection that a permanent spent-fuel repository will not be available until at least 2048 is accurate, spent fuel could be moved to an interim storage facility before then. New York and the Local Petitioners therefore have not shown that removing all fuel by 2061 is implausible.

In any event, the Continued Storage GEIS supports HDI’s conclusion that it will be able to remove all spent fuel from Indian Point by 2061. In that GEIS, the Staff found that safe storage of spent fuel in a geologic repository is technically feasible using currently available technology, with no major breakthroughs in science or technology needed. The Staff also found that “25 to 35 years . . . [is] a reasonable period for repository development.”¹⁶⁰ The Staff issued the GEIS in 2014, meaning that it estimated a repository would be available between 2039 to 2049. Accordingly, even accounting for some delay in repository development, HDI’s estimate that all spent fuel will be removed from Indian Point by 2061 is plausible when measured against the GEIS, and we find that New York and the Local Petitioners have not established a genuine dispute in this area.¹⁶¹

¹⁵⁹ See *Seabrook*, CLI-99-6, 49 NRC at 222.

¹⁶⁰ See Continued Storage GEIS app. B, at B-2, B-8 to B-9.

¹⁶¹ New York also cites HDI’s statement that its storage period “generally aligns” with the GEIS, which identifies a sixty-year storage period as the “most likely” timeframe for removing spent fuel. New York Reply at 17 (citing Applicants’ Answer to New York Petition at 63). But HDI’s statement that its storage period “generally aligns” with the GEIS does not mean HDI is proposing a storage period extending through 2081, as New York infers. Rather, HDI’s proposed storage period extends only through 2061. See, e.g., Application at Attach. D; DCE at 64, 97.

New York and the Local Petitioners further argue that, assuming there are delays in either beginning or completing spent-fuel removal from Indian Point, HDI will experience cost overruns that call into question its cost estimates.¹⁶² Because we find that the Petitioners have not raised a genuine dispute over whether HDI's estimates of the start and end dates for spent-fuel removal are plausible, however, we need not reach their arguments regarding cost overruns. In any event, if HDI learns that its timelines for removing spent fuel from Indian Point are no longer plausible, it will need to notify the NRC of the delays through its financial assurance status reports and provide additional financial assurance, if necessary, to cover the estimated costs resulting from the delays.¹⁶³

7. New York's Contention 2.F

New York argues that HDI's cost estimates are inadequate because the spent fuel at Indian Point is currently stored in casks that DOE has not approved for offsite transportation.¹⁶⁴ New York states that, under the terms of the Standard Contract, HDI will be required to repackage this fuel in DOE-approved casks before it is transported to a storage facility.¹⁶⁵ New York first argues that in its cost estimates HDI failed to make any provision for repackaging spent fuel.¹⁶⁶ New York then claims that repackaging costs "could total hundreds of millions of

¹⁶² New York Petition at 40; Brewer Declaration ¶ 32; see also Town, Village, and District Petition at 13-15.

¹⁶³ 10 C.F.R. § 50.82(a)(8)(vi).

¹⁶⁴ New York Petition at 40-44.

¹⁶⁵ HDI does not dispute this statement. Applicants' Answer to New York Petition at 67.

¹⁶⁶ See, e.g., New York Petition at 43 (arguing that because HDI's estimates "fail to include costs associated with repackaging spent nuclear fuel, the license transfer application and supporting PSDAR appear to assume that DOE will take possession of the spent nuclear fuel at Indian Point as packaged, in non-DOE casks."). The Local Petitioners also briefly argue that HDI has failed to account for the cost of repackaging spent fuel for delivery to DOE. Town, Village, and District Petition at 14-15. Our discussion of New York's Contention 2.F below also applies to the Local Petitioners' argument on repackaging costs.

dollars” if HDI must transfer spent fuel to other plants for repackaging or construct a dry-transfer station at Indian Point.¹⁶⁷

New York argues alternatively that, if DOE changes the Standard Contract so that licensees can package spent fuel in non-DOE casks, HDI may need to reimburse DOE for any payments DOE previously made to Indian Point licensees for packaging spent fuel.¹⁶⁸ According to New York, these reimbursements could potentially exceed \$130 million.¹⁶⁹ New York argues that HDI unreasonably omits any discussion of these potential reimbursements from its DCE.

To the extent New York argues that HDI has not accounted for any repackaging costs, we find the State does not raise a genuine dispute with the license transfer application. The application and supporting information show that HDI has considered the costs of transferring spent fuel into transportation casks. For example, the cost estimates at pages 108, 110, and 112 of the DCE include entries for “WBS Code 01.02.10.02.03.02,” which covers “Transfer of fuel and/or nuclear material away from the ISFSI - Spent Fuel Management Costs.” These cost estimates total approximately \$80 million. New York does not specifically challenge this information or provide a reason to conclude that the casks into which HDI plans to transfer spent fuel would be ineligible for DOE pickup under the Standard Contract.

Although New York also argues that HDI may need to transport fuel to another plant or construct an onsite dry-transfer station to support repackaging, we find these arguments do not present a genuine dispute with HDI’s cost estimates. New York appears to assume that the multi-purpose canisters in which the spent fuel at Indian Point is loaded will be incompatible with

¹⁶⁷ New York Petition at 44; Brewer Declaration ¶ 30.

¹⁶⁸ New York Petition at 41-44.

¹⁶⁹ *Id.* at 44; Brewer Declaration ¶ 31.

the casks DOE approves for offsite transportation.¹⁷⁰ Thus, New York argues, HDI could not transfer its canisters from existing storage casks to DOE-approved transportation casks (an activity that HDI addresses in its DCE) but would need to reload the spent fuel into canisters that are compatible with the DOE casks (an activity that HDI does not address). Because DOE has not yet identified which casks will be approved for transportation of spent fuel, however, it would be premature to conclude that the multi-purpose canisters at Indian Point will be incompatible with these casks. Accordingly, New York's claim that HDI may need to transport spent fuel to another plant or construct a dry-transfer station cannot form a basis for admitting a contention.

New York further argues that, based on recent filings with the NRC, it appears that HDI plans to replace the current fuel-handling crane at Unit 3 with a single-failure-proof crane designed for direct loading of dry-storage casks.¹⁷¹ New York states that a similar crane-construction project at Unit 2 cost approximately \$20 million and there is no reason to believe a similar project at Unit 3 would cost less.¹⁷² New York argues that because neither the PSDAR nor DCE discusses this project, HDI has underestimated the costs associated with spent-fuel management at Indian Point.

The Applicants state that certain activities related to the crane are already underway and that these activities are being funded by Entergy from sources outside the decommissioning trusts.¹⁷³ They argue that HDI therefore did not need to factor these activities into its cost estimates. As for post-transfer activities associated with the crane, the Applicants argue that

¹⁷⁰ See DCE at 65 (referring to multi-purpose canisters).

¹⁷¹ New York Petition at 45.

¹⁷² *Id.*; Brewer Declaration ¶ 29.

¹⁷³ Applicants' Answer to New York Petition at 69.

HDI considered the related costs and assigned them to the “Management of fuel, fissile and other nuclear materials” category in Table 6-1c of its DCE.¹⁷⁴ This category lists approximately \$106 million in estimated costs. Because New York does not dispute that funds in this category would cover any post-transfer activities related to installation of the crane or challenge the adequacy of this specific estimate, these claims do not support admitting New York’s Contention 2.F.

Finally, we are not persuaded by New York’s argument that if DOE agrees to remove spent fuel from reactor sites without requiring repackaging, DOE will seek to recover past payments to licensees for the original packaging of the fuel. New York provides no basis for presuming that DOE will identify a valid contractual claim, pursue that claim, and succeed in requiring licensees to bear additional packaging-related costs. Nor would these matters be appropriate for resolution in an NRC adjudicatory hearing. If future legal developments call into question HDI’s cost estimates for spent-fuel management or waste disposal, HDI will need to notify the NRC, and the NRC will review whether HDI needs to adjust its financial assurance accordingly.¹⁷⁵

8. New York’s Contention 2.G

New York argues that HDI’s cost estimates fail to account for mixed waste currently stored at Unit 1.¹⁷⁶ According to New York, this waste consists of approximately 600 cubic feet of material contaminated with polychlorinated biphenyls (PCBs). New York states that, depending on the characteristics of this waste, HDI may need to transfer the waste to a qualified

¹⁷⁴ *Id.* at 69 & n.295 (citing DCE at 111 (WBS Code 01.02.02.01.04)).

¹⁷⁵ See generally 10 C.F.R. § 50.82(a)(8).

¹⁷⁶ New York Petition at 45-47.

facility for stabilization or thermal desorption.¹⁷⁷ Because HDI's cost estimates do not address this waste, New York argues, HDI has failed to show adequate decommissioning funding.¹⁷⁸

The Applicants argue that, when developing its cost estimates, HDI did not consider the costs associated with this specific type of mixed waste because those costs will be assumed by Entergy, which plans to dispose of the waste before the license transfer.¹⁷⁹ The Applicants refer to a declaration New York submitted in support of its petition that discusses Entergy's efforts to dispose of this waste.¹⁸⁰

In its reply brief, New York does not challenge the Applicants' claim that Entergy, rather than HDI, will pay for disposing of PCB-contaminated material at Indian Point.¹⁸¹ Because New York's own declaration supports the Applicants' claim that HDI will not be liable for these disposal costs, we find that New York has not raised a material dispute with the application. Contention 2.G is therefore inadmissible.

9. *New York's Contention 2.H*

New York argues that the PSDAR and DCE are inadequate because HDI allots only one year per unit for reactor-internals and pressure-vessel segmentation.¹⁸² New York states that, by underestimating the time it will spend on these activities, HDI accordingly underestimates decommissioning costs. New York argues that delays at the segmentation stages could increase overall decommissioning costs to an extent that calls into question the adequacy of

¹⁷⁷ See *Declaration of Alyse L. Peterson* (Feb. 10, 2020) ¶¶ 7-11 (Peterson Declaration).

¹⁷⁸ New York Petition at 46.

¹⁷⁹ Applicants' Answer to New York Petition at 71-72.

¹⁸⁰ *Id.* at 72 (citing Peterson Declaration ¶¶ 7, 9, 10).

¹⁸¹ See New York Reply at 18 (moving directly from argument on Contention 2.F to Contention 2.H).

¹⁸² New York Petition at 48-52.

HDI's funding. For example, New York argues that such delays could raise program-management costs alone by as much as \$110 million a year and potentially exceed the funding surplus HDI currently projects.¹⁸³

New York argues that segmentation of a pressurized water reactor (PWR) like those at Indian Point is more complex—and should thus take longer—than segmentation of a boiling water reactor (BWR), which itself typically takes longer than a year.¹⁸⁴ New York states that HDI itself has proposed segmentation timelines longer than a year for a BWR. As examples, New York states that HDI originally projected a timeline of slightly less than two years for the Pilgrim BWR and it projected a three-year timeline for the Oyster Creek BWR.¹⁸⁵ New York argues that HDI fails to explain why it is reasonable to rely on a shorter timeline for the more complex segmentation projects at Indian Point.

New York also argues that HDI's recent extension of its timeline for segmentation activities at Pilgrim from approximately two years to three-and-a-quarter years shows that a similar extension is likely at Indian Point.¹⁸⁶ Furthermore, New York asserts that HDI's management of multiple reactor sites in decommissioning increases the potential for delays at Indian Point due to the risk that resources will be diverted to other sites.¹⁸⁷

We find that New York has not raised a genuine dispute as to whether HDI will complete segmentation activities for each unit within one year, the period relied upon in the PSDAR and DCE. New York does not offer any expert opinion or facts suggesting it will be infeasible to

¹⁸³ *Id.* at 52; Brewer Declaration ¶¶ 19.

¹⁸⁴ New York Petition at 50; Brewer Declaration ¶¶ 21.

¹⁸⁵ New York Petition at 50; Brewer Declaration ¶¶ 21.

¹⁸⁶ New York Petition at 51.

¹⁸⁷ *Id.*; Brewer Declaration ¶¶ 10.

segment the reactor vessels at Indian Point within one year. Although one of New York's declarants states that segmenting a PWR is more complex than a BWR, this does not in itself raise a genuine dispute over whether it will be feasible to segment a PWR within one year. The declarant does not identify any technical, safety, or legal restrictions that would potentially call into question HDI's segmentation timelines. For example, the declarant does not cite radiation-exposure limits or occupational safety-and-health standards that might render a one-year timeline infeasible.¹⁸⁸

Nor does New York provide any support from which we might conclude there is a genuine dispute regarding whether other factors render Holtec's timelines infeasible. New York claims there is "a limited supply of qualified sub-contractors" available for decommissioning work, but it does not cite any specific information to support its claim.¹⁸⁹ New York also points to delays in segmentation activities at several other reactor sites, but it does not identify the factors underlying these delays or provide how these factors are likely to delay activities at Indian Point.¹⁹⁰ For example, although New York's declarant had an oversight role related to the decommissioning of the two Zion PWR units, which experienced delays in segmentation activities, he does not address the source of these delays or explain how they may be relevant to Indian Point.¹⁹¹ Without additional information to support New York's arguments, we are

¹⁸⁸ See, e.g., Brewer Declaration ¶ 21 (stating that "[g]enerally, the segmentation of the reactor vessel internals and reactor vessel for a boiling water reactor is less time-consuming than for a pressurized water reactor," but without specifying the technical considerations supporting this conclusion or stating that segmenting a PWR in one year is technically infeasible).

¹⁸⁹ New York Petition at 51; Brewer Declaration ¶ 10. Mr. Brewer states that "[t]here are limited resources in terms of trained and experienced personnel for performing specialty tasks such as segmentation of reactor vessel internals and reactor vessels." He does not, however, define any such limitations or compare them to the resource needs at Indian Point.

¹⁹⁰ New York Petition at 50; Brewer Declaration ¶ 22.

¹⁹¹ Brewer Declaration ¶ 22; see also *USEC Inc. (American Centrifuge Plant)*, CLI-06-10, 63 NRC 451, 472 (2006) (holding that an expert opinion that merely states a conclusion, without

unable to find that there is a genuine issue as to whether the delays at other sites render HDI's timelines implausible.¹⁹²

For these reasons, we find that Contention 2.H is inadmissible because it does not raise a genuine dispute with the application.

10. New York's Contention 2.I

New York argues that HDI may be planning to use decommissioning trust funds reserved for Unit 3 to pay for activities at other Indian Point units.¹⁹³ New York notes that the DCE assigns labor costs to Unit 3 for several years after that unit's scheduled demolition in 2027.¹⁹⁴ New York argues that using Unit 3 funds for other purposes would conflict with NRC rules limiting withdrawals from decommissioning trusts.¹⁹⁵

In their answer, the Applicants state that although Unit 3 is scheduled to be demolished in 2027, decommissioning activities at Unit 3 will continue beyond that year, along with spent fuel management and site restoration activities.¹⁹⁶ The Applicants state that these activities explain the labor costs New York identifies and that funds allocated to Unit 3 will not be diverted to other units.¹⁹⁷ In its reply brief, New York does not challenge the Applicants' explanation of why HDI has assigned labor costs to Unit 3 for several years after 2027. New York ends its

providing a reasoned basis or explanation for that conclusion, is not enough to support admitting a contention).

¹⁹² See, e.g., *Seabrook*, CLI-99-6, 49 NRC at 222.

¹⁹³ New York Petition at 53-54.

¹⁹⁴ *Id.* at 53 (citing DCE at 84).

¹⁹⁵ *Id.* at 54; Brewer Declaration ¶¶ 6-7.

¹⁹⁶ Applicants' Answer to New York Petition at 82.

¹⁹⁷ *Id.*

arguments regarding Contention 2 with Basis H, and it does not provide further argument regarding Basis I.¹⁹⁸

We find that New York has not established a genuine dispute with the application. Based on the PSDAR and DCE, the labor costs listed for Unit 3 after 2027 refer to decommissioning, spent fuel management, and site restoration activities involving that unit.¹⁹⁹ In other words, the information regarding labor costs that New York seeks is in the application. Contention 2.I is therefore inadmissible.

11. New York's Contention 2.J

New York moves to amend Contention 2 with an argument that market declines in response to the COVID-19 public health emergency may have significantly reduced the value of the Indian Point decommissioning trusts.²⁰⁰ Even if the trust funds are invested conservatively, New York argues, they may have declined by over \$210 million since the Applicants submitted the license transfer application.²⁰¹ New York argues that these losses call into question whether HDI, Holtec IP2, and Holtec IP3 will have enough funding for decommissioning activities and spent-fuel management at Indian Point.²⁰²

But New York does not demonstrate that this argument meets the standards for late-filed contentions. For a new contention to be admissible after the deadline for initial intervention petitions has passed, the petitioner must show that the information supporting the contention

¹⁹⁸ New York Reply at 19.

¹⁹⁹ See PSDAR at 12-13 (describing post-demolition activities involving Indian Point units, including Unit 3); DCE at 58, tbl.2-1 (listing projected start and end dates for such activities by unit).

²⁰⁰ New York Motion at 1-4, 7-10.

²⁰¹ *Id.* at 5, 9; *Supplemental Declaration of Chiara Trabucchi* (Mar. 23, 2020) ¶¶ 4, 13-16, tbls.1-3.

²⁰² New York Motion at 3, 11.

differs materially from information that was previously available.²⁰³ The petitioner must also show that the new information raises a genuine dispute with the applicant on a material issue of law or fact.²⁰⁴

Even though the market fluctuations related to the COVID-19 public health emergency constitute “new” information, New York does not explain how this information differs materially from previously available information. As we have stated in the license transfer context, an applicant’s financial assurance estimates will be acceptable if they are grounded in assumptions and forecasts that were plausible when the estimates were submitted.²⁰⁵ Here, New York does not argue that recent market conditions show HDI’s estimates were implausible in December 2019, when HDI submitted its cost estimates. New York therefore does not show that the new information is material to evaluating those estimates or, from the standpoint of challenging the DCE, materially different from the information available when it filed its petition.

Instead, New York appears to argue that Holtec should be required to update its cost estimates based on recent market conditions.²⁰⁶ This argument does not, however, raise a material dispute with the application because New York does not identify any requirement that an applicant update its cost estimates in response to market conditions. While under the NRC’s rules an applicant must update its cost estimates in certain situations, New York does not argue (and we do not find) that any of these situations are presented here.²⁰⁷

²⁰³ 10 C.F.R. § 2.309(c)(ii).

²⁰⁴ *Id.* § 2.309(f)(1)(vi).

²⁰⁵ *Seabrook*, CLI-99-6, 49 NRC at 222.

²⁰⁶ New York Motion at 3, 11.

²⁰⁷ For example, under the NRC’s rules a licensee must provide site-specific decommissioning cost estimates within two years of permanently ceasing operations, and it must provide updated cost estimates in its license termination plan. 10 C.F.R. § 50.82(a)(4)(i), 50.82(a)(8)(iii), 50.82(a)(9)(ii)(f); *see also* “Assuring the Availability of Funds for Decommissioning Nuclear

New York further argues that, because HDI proposes relying on the Indian Point trusts to fund decommissioning and related activities at Indian Point, and because the trusts may recently have declined significantly in value, they may be insufficient to fund those activities. This argument, however, challenges neither HDI's cost estimates nor its commitment to provide funding sufficient to meet those estimates.²⁰⁸ Rather, it challenges the financial qualifications of HDI, Holtec IP2, and Holtec IP3—that is, the companies' ability to fund decommissioning and related activities—and it repeats arguments that New York raises under Contention 3. Accordingly, we will address these arguments in the context of that contention, which relates specifically to financial qualifications.²⁰⁹

We therefore deny New York's motion to amend Contention 2.

12. New York's Contention 3

New York argues that HDI, Holtec IP2, and Holtec IP3 have not shown they are financially qualified to support decommissioning and other activities at Indian Point.²¹⁰ According to New York, the companies' financial qualifications cannot be predicated solely on access to the Indian Point trusts. Rather, New York argues that the companies must show they

Reactors," Regulatory Guide 1.159, rev. 2 (Oct. 2011), at 12 (ML112160012) (discussing updates to cost estimates).

²⁰⁸ A transfer of the Indian Point licenses cannot be completed unless the proposed transferees have provided financial assurance that is adequate to cover decommissioning activities at the site. 10 C.F.R. § 50.75(e)(1).

²⁰⁹ In its reply brief, New York focuses on its claim that the economic downturn calls into question whether HDI, Holtec IP2, and Holtec IP3 are financially qualified to hold the Indian Point licenses (the issue raised in Contention 3), rather than on whether HDI's financial assurance estimate is adequate (the issue raised in Basis J of Contention 2). Reply in Support of New York State's Motion for Leave to Amend Contentions NY-2 and NY-3 at 3-8.

²¹⁰ New York Petition at 54-67; *Declaration of Chiara Trabucchi* (Feb. 7, 2020) ¶¶ 28-29 (Trabucchi Declaration).

are “healthy corporate entities with access to the financial resources necessary to procure additional financial assurance.”²¹¹

These arguments do not support admitting Contention 3. New York does not identify any NRC requirement that prevents an applicant from relying on a single funding source to establish that it is financially qualified to decommission a site. In any event, while in the license transfer application Holtec proposes relying on the Indian Point trusts—the value of which exceeded HDI’s cost estimates—to fund decommissioning and related activities at Indian Point, the financial qualifications of Holtec IP2 and Holtec IP3 are broader, because they include potential DOE recoveries under the Standard Contract.²¹² Under the Standard Contract, Holtec IP2 and Holtec IP3 expect to recover from DOE the costs they will incur as a result of the DOE’s breach of its obligations to dispose of Indian Point’s spent nuclear fuel.²¹³

The DCE lists approximately \$560 million in spent fuel management costs for the three Indian Point units between 2021 and 2062.²¹⁴ While Holtec IP2 and Holtec IP3 have not relied on the potential recoveries of these costs to provide financial assurance (and while the costs are, at this point, only estimates), these potential recoveries are nonetheless relevant to whether the companies could provide additional financial assurance if the decommissioning trusts prove insufficient.²¹⁵ New York does not dispute that potential DOE recoveries could be used to

²¹¹ New York Petition at 56.

²¹² See Application at 3 and Encl. 1 at 2.

²¹³ See *id.*, Encl. 1 at 20.

²¹⁴ DCE at 70, 73, 76.

²¹⁵ For example, Holtec IP2 and Holtec IP2 could potentially use the recoveries to obtain funds for prepayment or an external sinking fund, or use the recoveries to obtain a surety bond, letter of credit, or insurance—all of which would be permissible forms of financial assurance. 10 C.F.R. § 50.75(e)(1)(i)-(iii).

provide additional financial assurance.²¹⁶ The financial qualifications of Holtec IP2 and Holtec IP3 do not, therefore, rest solely on their access to the decommissioning trusts, as New York asserts.

New York also argues that Holtec IP2 and Holtec IP3 must show they currently have access to the funds necessary to complete required activities and that HDI's funding cannot be contingent on an exemption request.²¹⁷ New York cites 10 C.F.R. § 50.33(f) to support its argument, but this section states merely that the applicant must provide "information sufficient to demonstrate to the Commission the financial qualification of the applicant to carry out, in accordance with regulations in this chapter, the activities for which the permit or license is sought." This section does not prohibit an applicant from relying on anticipated funding sources as a means of establishing its financial qualifications. Furthermore, the NRC's financial assurance standard at 10 C.F.R. § 50.75(e)(1)(i) defines "prepayment"—the form of financial assurance HDI proposes using—as "the deposit made preceding the start of operation or the transfer of a license under § 50.80 into an account segregated from licensee assets[.]" The NRC's rules therefore do not require a license transfer applicant to prepay for decommissioning costs at the time it submits its application, as New York argues.²¹⁸

²¹⁶ In Contention 2.A, New York states that "Holtec nowhere commits to return such recoveries to the trust funds or otherwise ensure their availability to [HDI, Holtec IP2, and Holtec IP3] if and when additional license termination, site restoration, or spent fuel management funds are needed." New York Petition at 16. The lack of a current commitment to use DOE recoveries for these purposes is not dispositive, however, because the NRC could effectively require Holtec IP2 and Holtec IP3 to apply a portion of these recoveries to cover estimated decommissioning costs. 10 C.F.R. § 50.82(a)(8)(vi).

²¹⁷ New York Petition at 56.

²¹⁸ The Staff has previously approved license transfer requests involving reactors in decommissioning where the applicant relied on its anticipated access to trust funds to show it was financially qualified to conduct decommissioning activities. See "Safety Evaluation by the Office of Nuclear Reactor Regulation and Office of Nuclear Material Safety and Safeguards Related to Request for Direct Transfer of Control of Renewed Facility Operating License No. DPR-16 and the General License for the Independent Spent Fuel Storage Installation" (June 20, 2019) at 7-13 (ML19095A457); "Safety Evaluation by the Office of Nuclear Reactor

New York further argues that decommissioning trusts are not intended as the first line of defense against inadequate decommissioning funding, as HDI is proposing. Rather, according to New York, a financial assurance instrument is intended as “*a second line of defense*[],” to be called upon “if the financial operations of the licensee are insufficient . . . to ensure that sufficient funds are available to carry out decommissioning.”²¹⁹ This language is not relevant here, however, because it relates to licensees with ongoing operations that might provide funding for, or divert funding from, decommissioning activities. The Indian Point units, in contrast, will all have ceased operations before the completion of this proposed license transfer. In any event, 10 C.F.R. § 50.75 specifies the methods by which a licensee can provide financial assurance for decommissioning activities, and neither this rule nor any other NRC rule requires a licensee at the decommissioning stage to supplement its financial assurance method with a showing that its operations will generate additional funding. Nor does 10 C.F.R. § 50.33(f) state that the NRC’s review of a licensee’s financial qualifications will be limited to factors such as revenue, gross income, or net worth. In brief, the NRC rules upon which New York relies do not provide support for its contention.

New York also argues that, because HDI, Holtec IP2, and Holtec IP3 lack funding independent of the decommissioning trusts, they would be poorly positioned to manage cost overruns that HDI can be expected to experience during the decommissioning of Indian Point.²²⁰ New York points to decommissioning obligations HDI has assumed, or proposes to assume, at

Regulation Related to Request for Direct Transfer of Control of Renewed Facility Operating License No. DPR-35 and the General License for the Independent Spent Fuel Storage Installation” (Aug. 22, 2019) at 7-15 (ML19170A250).

²¹⁹ New York Petition at 57 (citing Financial Assurance Requirements for Decommissioning Nuclear Power Reactors; Final Rule, 63 Fed. Reg. 50,465, 50,474 (Sept. 22, 1998) (emphasis added by New York)).

²²⁰ *Id.* at 61-62.

the Pilgrim, Oyster Creek, and Palisades sites. In New York's view, if HDI experiences unforeseen delays at any of these sites, it could delay work and increase costs at Indian Point. This "cascading delay," New York states, could "adversely affect HDI's day-to-day finances and compromise its ability to function as a going concern."²²¹

While delays at other sites for which HDI has decommissioning responsibilities could cause delays at Indian Point, they could also have no such effect, or they could potentially allow HDI to expedite work at Indian Point. New York has not supported, through facts or expert opinion, its argument that delays at other sites are reasonably likely to have the effect it suggests and that this effect calls into question whether HDI, Holtec IP2, and Holtec IP3 are financially qualified to decommission Indian Point. New York's declarants, for example, do not explain why delays at other HDI sites are reasonably likely to compromise the companies' financial ability to decommission Indian Point; they only state that this scenario is possible.²²² That is not enough to admit a contention in this proceeding.²²³

In addition, New York makes several arguments that are not directly related to financial qualifications. New York argues that Holtec's plan to decommission multiple sites simultaneously presents a risk that "trust reimbursements for decommissioning work performed at separate units will be commingled into a single revenue stream," reducing funds available for

²²¹ *Id.* at 60-61; Brewer Declaration ¶ 10.

²²² See Brewer Declaration ¶ 10 ("With decommissioning of several plants at multiple sites the *possibility* exists that a delay in a project can result from events at one of the other projects or sites.") (emphasis added).

²²³ See *Power Authority of the State of New York* (James A. FitzPatrick Nuclear Power Plant; Indian Point, Unit 3), CLI-00-22, 52 NRC 266, 312 (2000) ("Absent strong support for a claim that difficulties at other plants run by a corporate parent will affect the plant(s) at issue before the Commission, we are unwilling to use our hearing process as a forum for a wide-ranging inquiry into the corporate parent's general activities across the country.").

work at Indian Point.²²⁴ New York also argues that certain information related to the financial structure of Holtec and its subsidiaries should be made publicly available or at least reviewed by the NRC.²²⁵ New York's other arguments relate to potential bankruptcies, the investment guidelines HDI will set for assets in the decommissioning trusts, and past behavior of Holtec officials.²²⁶

These arguments, however, do not support admitting Contention 3, which focuses on the financial qualifications of HDI, Holtec IP2, and Holtec IP3. The NRC's rules prohibit the commingling scenario New York describes,²²⁷ and the bankruptcy scenario New York raises is speculative as it is based on the assumption that Holtec's subsidiaries will lack sufficient funds to conduct day-to-day operations.²²⁸ While New York also claims that certain financial information related to Holtec and its subsidiaries should have been made publicly available, the State could have requested access to this information to support its hearing request and Contention 3, but it did not do so.²²⁹ Regarding Holtec's investment guidelines, New York does not identify any NRC requirement that Holtec submit these guidelines as part of its application. Finally, New York has not shown that its claims regarding past misconduct of Holtec officials are material to the adequacy of Holtec's subsidiaries' financial qualifications or present a genuine

²²⁴ New York Petition at 61.

²²⁵ *Id.* at 61-63; Trabucchi Declaration ¶¶ 21-23.

²²⁶ New York Petition at 65-68; Trabucchi Declaration ¶¶ 13-15, 26-32, 35, 43. New York also refers to several arguments it made in Contentions 1 and 2, including its claims regarding whether HDI can claim a 2% return rate on decommissioning trust funds, unforeseen project delays, Holtec's plan to decommission multiple sites simultaneously, the potential discovery of additional radiological and non-radiological contamination at Indian Point, and HDI's assumption that DOE will begin accepting spent nuclear fuel in 2030. We have addressed these arguments in the context of our rulings on Contentions 1 and 2, and we will not address them further here.

²²⁷ 10 C.F.R. § 50.82(a)(8)(i).

²²⁸ New York Petition at 64; Trabucchi Declaration ¶ 14.

²²⁹ Hearing Notice, 85 Fed. Reg. at 3950.

dispute with any specific aspect of the license transfer application. To be admitted as a contention, a claim of deficient character must have “some direct and obvious relationship between the character issues and the licensing action in dispute,” and New York has not described such a relationship here.²³⁰

We also consider New York’s motion to amend Contention 3. New York argues that the economic downturn related to the COVID-19 public health emergency calls into question whether HDI, Holtec IP2, and Holtec IP3 are financially qualified to carry out the activities for which they seek NRC licenses. New York states that Holtec’s subsidiaries base their financial qualifications solely on the decommissioning trust funds available as of October 31, 2019.²³¹ According to New York, recent economic data since that date show that the trust funds may have declined in value by more than \$210 million, raising an issue as to how the subsidiaries will provide the financial assurance required by the NRC’s rules.²³²

Over time, market fluctuations that may temporarily affect the value of decommissioning trusts are to be expected, and some fluctuations could potentially be significant enough to raise a dispute about the adequacy of the decommissioning funding presented in the license transfer application. New York, however, has not supported with facts or expert opinion its claim that the COVID-19-related economic downturn will be of sufficient severity and duration to prevent Holtec’s subsidiaries from relying on the trust funds to provide financial assurance through prepayment, the financial assurance method specified in the application. Accordingly, even if HDI, Holtec IP2, and Holtec IP3 based their financial qualifications solely on access to the trust

²³⁰ *Oyster Creek*, CLI-19-6, 89 NRC at 477 (quoting *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 365 (2001)). Riverkeeper raises similar arguments about the past behavior of Holtec officials. We discuss these below. See Section C, *infra*.

²³¹ New York Motion at 9, 11.

²³² *Id.*

funds, New York has not shown there is a genuine dispute over whether those qualifications are sufficient to support the decommissioning of Indian Point.²³³

In any event, if the NRC approves the license transfer application, the financial qualifications of HDI, Holtec IP2, and Holtec IP3 will not be limited to the decommissioning trusts. HDI projects that it will spend approximately \$560 million managing spent fuel at the three Indian Point units between 2021 and 2062. Holtec IP2 and Holtec IP3—which if the application is approved will accede to Entergy’s rights under the Standard Contract—could seek to recover spent fuel management costs from DOE, and the prospect of these recoveries could potentially allow HDI to secure funding that would make up for any shortfall in the decommissioning trusts. New York does not argue that such recoveries are unlikely. To the contrary, New York acknowledges that the recoveries could be used to replenish trust funds.²³⁴ New York also does not identify any limitation on Holtec IP2 and Holtec IP3 using the prospect of future DOE recoveries to secure additional financial assurance, should the trust funds be insufficient to meet the NRC’s requirements.

For these reasons, we find that New York has not shown the new information upon which it relies in its motion is “materially different from information previously available” or that it presents a genuine dispute regarding the financial qualifications of HDI, Holtec IP2, or Holtec IP3.²³⁵ We therefore deny New York’s motion to amend Contention 3.

²³³ The NRC’s decommissioning regulatory regime, moreover, accounts for a certain level of financial uncertainty. If the NRC approves the license transfer application, HDI will need to submit decommissioning-funding status reports annually. 10 C.F.R. § 50.82(a)(8)(v)-(vi). If any annual report shows that the decommissioning trust balances will not cover the estimated costs of decommissioning Indian Point, HDI will need to provide additional financial assurance to cover those costs.

²³⁴ New York Petition at 14.

²³⁵ 10 C.F.R. §§ 2.309(c)(1)(ii), (f)(1)(vi).

13. Local Petitioners' Contention 1.B

The Local Petitioners argue that Holtec's corporate structure, HDI's lack of assets or revenue streams, and HDI's lack of decommissioning experience show that the companies do not possess the qualifications necessary to safely decommission Indian Point.²³⁶ They first argue that the "web of corporate ownership" that will be affiliated with decommissioning Indian Point "raises several red flags."²³⁷ The Local Petitioners claim that Holtec's use of limited-liability corporations (LLCs) raises the concern that "these entities could simply declare bankruptcy and walk away, having squandered the only resource set aside to decommission" Indian Point.²³⁸ They further claim that Holtec's "layers of ownership and operational authority creates an opportunity to siphon millions of dollars from the trust fund."²³⁹

These concerns do not form a basis for an admissible contention. The Local Petitioners do not identify any specific facts or support their arguments with expert opinion to indicate that the scenarios they describe are plausible. They also do not explain why a licensee's corporate structure as an LLC renders it more likely to experience financial stresses that might result in bankruptcy. Moreover, the NRC's rules contain provisions designed to avoid the depletion scenarios raised by the Local Petitioners. As discussed above, if estimated decommissioning costs exceed remaining decommissioning funds, the licensee must, in its annual financial assurance status report, "include additional financial assurance to cover the estimated cost of completion."²⁴⁰ The licensee must also specify how much it has spent on decommissioning activities, both cumulatively and during the previous year, and it must identify the difference

²³⁶ Town, Village, and District Petition at 22-28.

²³⁷ *Id.* at 24.

²³⁸ *Id.*

²³⁹ *Id.* at 24-25.

²⁴⁰ 10 C.F.R. § 50.82(a)(8)(vi).

between the estimated cost and the actual cost of work performed during the previous year. The NRC therefore can track whether a licensee's actual costs exceeded those that were predicted. The Local Petitioners do not address these provisions or explain why they would be insufficient to avoid the scenarios they raise.

The Local Petitioners also argue that there is no guarantee that HDI, Holtec IP2, or Holtec IP3 could obtain funding to cover cost overruns that might occur during the decommissioning of Indian Point.²⁴¹ The Local Petitioners initially raise the possibility of cost overruns in their Contention 1.A, however, for the reasons stated above, we find they have not raised a genuine issue regarding whether any of the cost-overrun scenarios they describe will occur. As the Indian Point licensee, HDI will be required to update the NRC annually on its decommissioning costs and provide additional financial assurance, if necessary, to cover the estimated cost of completing decommissioning. Based on these annual reports, the NRC could impose conditions on the licenses of HDI, Holtec IP2, or Holtec IP3; these conditions could potentially require that specific funding—for example, recoveries from DOE under the Standard Contract—be pledged as financial assurance.

The Local Petitioners further argue, as New York did in its Contention 3, that HDI has not shown it is independently qualified to become the Indian Point licensee because it “rests its financial qualification exclusively on the trust fund.”²⁴² Like New York, however, they do not cite any NRC requirement that prevents an applicant from relying on a single funding source to establish that it is financially qualified to decommission a site. And while HDI has proposed relying on the trusts to fund decommissioning and related activities at Indian Point, the financial

²⁴¹ Town, Village, and District Petition at 24, 26.

²⁴² *Id.* at 26.

qualifications of HDI, Holtec IP2, and Holtec IP3 are broader because they include potential recoveries from DOE under the Standard Contract.

Finally, the Local Petitioners argue that HDI's lack of experience decommissioning nuclear reactor sites results in overly optimistic cost projections.²⁴³ But it is not enough for the Local Petitioners to describe HDI's projections as "overly optimistic." They must identify specific deficiencies in those projections and show that they raise a genuine dispute with the license transfer application. While the Local Petitioners also argue that HDI's inexperience is relevant to the NRC's evaluation of its technical qualifications, the Local Petitioners do not cite any specific facts or opinions to support their argument, and as a result this argument does not meet the NRC's standards for contention admissibility.²⁴⁴

14. Local Petitioners' Contention 1.C

The Local Petitioners argue that HDI's request for an exemption to use trust funds for non-decommissioning purposes creates an incentive to cut corners so that it obtains the largest possible payout when Indian Point is fully retired.²⁴⁵ They also argue that, if the NRC approves the license transfer application, the agency should impose conditions requiring additional funds to restore Indian Point that would guarantee that Holtec will meet its tax obligations to the local community and would require that Holtec return to the local community any trust funds remaining after Indian Point's decommissioning is completed.²⁴⁶ The Local Petitioners cite *Vermont Yankee* as an example of a license transfer proceeding where the NRC approved a

²⁴³ *Id.* at 27.

²⁴⁴ Town, Village, and District Petition at 26-27.

²⁴⁵ *Id.* at 29. The Local Petitioners also state, however, that "[o]ut of an abundance of caution" they are not actually alleging that HDI will cut corners; rather, their view is "that the prudent exercise of discretion suggests that" allowing HDI to use trust funds for activities other than decommissioning "is not in the public interest." *Id.*

²⁴⁶ *Id.* at 30.

trust agreement under which remaining trust funds would be returned to the community.²⁴⁷ In addition, the Local Petitioners argue that the NRC should require Holtec to provide additional financial assurance—parental guarantees, letters of credit, performance bonds, or other instruments—based on the “reasonably foreseeable cost overruns” they identify in their petition.²⁴⁸

Although the Local Petitioners argue that HDI’s exemption request creates an incentive to minimize withdrawals from the decommissioning trusts, they do not explain why the exemption, if granted, would create any additional incentive beyond a licensee’s ordinary interest in conserving financial resources. Nor do the Local Petitioners argue that such an incentive would be a basis for denying either the license transfer application or HDI’s exemption request.²⁴⁹ The Local Petitioners’ remaining arguments involve claims that the NRC should impose various conditions if the agency approves the license transfer application. Their argument that the NRC should impose license conditions based on cost overruns HDI may experience is unpersuasive because they have not shown those asserted overruns are reasonably likely to occur. The Local Petitioners’ other arguments are viewed more properly as opinions regarding actions the NRC should take, as opposed to claims that raise a genuine issue regarding whether the license transfer application is adequate. Although the Local Petitioners state that other NRC licenses have included the conditions they propose, they do not cite any rule suggesting that the Entergy-Holtec license transfer application is deficient because

²⁴⁷ *Id.* (citing *Entergy Nuclear Vermont Yankee, LLC & Entergy Nuclear Operations, Inc.* (Vermont Yankee Nuclear Power Station), LBP-15-24, 82 NRC 68, 73 (2015)).

²⁴⁸ *Id.* at 31.

²⁴⁹ HDI submitted its exemption request on the same day the Local Petitioners filed their petition. To the extent the Local Petitioners identified any deficiency in the exemption request, they could have moved to amend their petition to challenge the request specifically. 10 C.F.R. § 2.309(c).

it lacks analogous commitments. Accordingly, the Local Petitioners' arguments do not present an admissible contention.²⁵⁰

15. Local Petitioners' Contention 2

The Local Petitioners argue that the license transfer application does not include enough information to support an assessment of environmental impacts as required by NEPA.²⁵¹ While the Local Petitioners acknowledge that our NEPA regulations categorically exclude license transfer applications from an environmental review, they assert that special circumstances exist in this case that should render the categorical exclusion inapplicable.²⁵² The Local Petitioners also assert that the "environmental issues posed by the decommissioning operation," which are referenced in the PSDAR, are not bounded by prior generic or site-specific environmental impact statements pertinent to site decommissioning "so these issues require further consideration by the Commission."²⁵³ We find that neither of these assertions raises a genuine dispute of material fact within the scope of this proceeding and therefore find Contention 2 inadmissible.

Our NEPA regulations categorically exclude certain license transfer approvals from the usual licensing requirement for an environmental assessment. This categorical exclusion exists because the NRC found in numerous environmental assessments that there are no significant environmental effects linked to license transfers.²⁵⁴ No significant environmental effects exist

²⁵⁰ See 10 C.F.R. § 2.309(f)(1)(vi) (stating that a petitioner must "show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact"); *Oconee*, CLI-99-11, 49 NRC at 334 (noting that "a petitioner may not demand an adjudicatory hearing . . . to express generalized grievances about NRC policies").

²⁵¹ Town, Village, and District Petition at 32.

²⁵² See *id.* at 32, 36-37; 10 C.F.R. § 51.22(c).

²⁵³ Town, Village, and District Petition at 32.

²⁵⁴ See Streamlined Hearing Process for NRC Approval of License Transfers, Final Rule, 63 Fed. Reg. 66,721, 66,728 (Dec. 3, 1998) (License Transfer Rule).

because a license transfer does not permit the transferee to operate the facility in a different manner than previously permitted. The NRC has therefore determined that, absent special circumstances, a license transfer will not present environmental impacts different from those already considered in relevant generic or site-specific NEPA analyses, and there is no need for further environmental analysis.²⁵⁵

The Local Petitioners assert that special circumstances exist in this case because the license transfer application references a separately filed exemption request to allow the use of the decommissioning trust fund for purposes other than radiological decommissioning.²⁵⁶ The Local Petitioners contend that we cannot, consistent with NEPA, rely on the categorical exclusion in 10 C.F.R. § 51.22(c)(21) to omit analysis of the potential environmental effects of granting the exemption request. They further assert that the exemption request is integral to the license transfer application, yet “neither Holtec nor the Commission has conducted *any analysis* of the environmental impacts of granting an exemption from the restriction of the use of decommissioning trust funds, nor has Holtec or the Commission analyzed the foreseeable environmental consequences of a shortfall in the trust fund.”²⁵⁷

Local Petitioners have not shown special circumstances exist warranting departure from the categorical exclusion in 10 C.F.R. § 51.22(c)(21) for license transfers.²⁵⁸ The Local Petitioners do not point to anything in the license transfer application or exemption request that suggests approval would authorize a substantive change in any licensed activities that have been previously subjected to NEPA review or show additional NEPA review is warranted due to

²⁵⁵ *See id.*

²⁵⁶ Town, Village, and District Petition at 36-37, 39-40.

²⁵⁷ *Id.* at 36 (emphasis in original).

²⁵⁸ The Local Petitioners have not requested a waiver of 10 C.F.R. § 51.22(c)(1). *See* 10 C.F.R. § 2.335(a), (b); *Curators of the University of Missouri* (TRUMP-S Project) CLI-95-1, 41 NRC 71, 125 n.70 (1995).

a significant and material change in environmental conditions previously considered for Indian Point. Although the Local Petitioners claim that there has been a previously unevaluated “increase in the frequency and intensity of extreme weather events as a result of climate change,” they provide no supporting data or analysis for that claim, nor do they explain how the asserted increase in extreme weather might change previously determined environmental impacts.²⁵⁹ In short, we see no basis in these arguments to depart from application of the categorical exclusion for certain license transfers in 10 C.F.R. § 51.22(c)(21).

Even though the categorical exclusion for certain license transfers in 10 C.F.R. § 51.22(c)(21) applies, an environmental review of HDI’s exemption request is nevertheless required because our NEPA rules include no categorical exclusion that would allow for approval of the request without an environmental assessment.²⁶⁰ Consistent with our rules, HDI included an environmental analysis in its exemption request, which it filed on the same day the Local Petitioners requested a hearing.²⁶¹ The environmental analysis concludes there would be no significant environmental impacts from granting the exemption.²⁶²

²⁵⁹ See Town, Village, and District Petition at 22. The NRC most recently evaluated the effects of climate change and sea level rise at Indian Point and the surrounding environment in 2018. See “Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 38, Regarding Indian Point Nuclear Generating Unit Nos. 2 and 3” (Final Report), NUREG-1437, Supplement 38, vol. 5 (Apr. 2018), at 5-53 to 5-63 (ML18107A759) (Indian Point SEIS). The Local Petitioners have not disputed that evaluation, which the PSDAR incorporates by reference. See PSDAR at 19.

²⁶⁰ See *Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc* (Vermont Yankee Nuclear Power Station), CLI-16-17, 84 NRC 99, 128-30 (2016). As we have explained in the context of New York’s Contention 2.A, HDI’s exemption request is within the scope of this proceeding because it is integrally related to the license transfer application. See Section 2, *supra*.

²⁶¹ See Exemption Request at 11-13.

²⁶² *Id.*

HDI's environmental analysis addresses the Local Petitioners' concern that there could be a shortfall in the funds available for decommissioning if the exemption is granted. HDI's analysis states that if the exemption is granted, no environmental impacts are expected due to a projected funding shortfall because NRC regulations require adequate and additional decommissioning funds to be provided in such an event.²⁶³ The Local Petitioners did not seek to amend their initial hearing request to dispute HDI's analysis.²⁶⁴ As a result, the contention before us—that no environmental analysis of the proposed exemption request has been performed—gives rise to no dispute of law or material fact within the scope of this proceeding and thus does not meet our contention admissibility standards.²⁶⁵

We also find inadmissible the Local Petitioners' claim that the PSDAR does not comply with 10 C.F.R. § 50.82(a)(4)(i) "because it does not address the reasonably foreseeable

²⁶³ *Id.*, Encl. 1 at 8-9. We consider HDI's approach, which credits the effectiveness of NRC's regulatory framework in mitigating, or avoiding altogether, certain environmental impacts, to be reasonable under NEPA. In this case, the NRC's regulatory framework requires a decommissioning licensee to file annual status reports, which NRC can use to monitor withdrawals from the trust fund. See 10 C.F.R. § 50.82(a)(8)(v). If the fund were to decrease at a much faster rate than projected, the NRC could take action to protect the fund, including revoking the exemption in full or in part. These and other provisions in our regulations thereby provide reasonable assurance that a facility will not be abandoned but either be fully decommissioned or maintained in a safe condition with no additional environmental impacts beyond those described in existing environmental impact statements. See, e.g., 10 C.F.R. § 50.82(a)(8)(vi) (requiring the provision of additional financial assurance in the event annual reports show insufficient funds to cover the estimated cost of completing decommissioning); Decommissioning GEIS at 5-1 (noting that if decommissioning is not completed, then the license will not be terminated and the licensee will be required to comply with NRC requirements governing safe operations, the environmental impacts of which have been previously considered).

²⁶⁴ See *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 24-25 (2001) (explaining that petitioners have an "ironclad obligation" to search the public record for information supporting their contentions).

²⁶⁵ Our regulations require the Local Petitioners to initially base their NEPA contentions on the applicant's environmental analysis. See 10 C.F.R. § 2.309(f)(2). The Staff completed its review of HDI's environmental analysis and published its environmental assessment on November 10, 2020. Nuclear Regulatory Commission, Environmental Assessment and Finding of No Significant Impact; Issuance, 85 Fed. Reg. 71,664 (Nov. 10, 2020).

potential impacts of climate change on spent fuel management.”²⁶⁶ This claim misapprehends the scope of this proceeding as well as the regulatory significance of the PSDAR, which does not amend the NRC license and is not a major federal action subject to NEPA review.²⁶⁷

The PSDAR’s purpose is to provide a “general overview for the public and the NRC of the licensee’s proposed decommissioning activities.”²⁶⁸ By rule, the PSDAR does not and cannot authorize any decommissioning activities that would result in environmental impacts that exceed those previously determined.²⁶⁹ In a PSDAR, a licensee must provide its reasons for concluding that the environmental impacts associated with planned decommissioning activities are bounded by previously issued, relevant site-specific or generic environmental impact statements.²⁷⁰ If a licensee contemplates performing a decommissioning activity with impacts not enveloped by previous environmental impact analyses, the licensee must submit a license-amendment request with a supplemental environmental report evaluating the additional impacts.²⁷¹ Any violation of this restriction is subject to NRC enforcement action.²⁷²

In this case, the PSDAR states that the environmental impacts of decommissioning Indian Point are bounded by those described in the Decommissioning GEIS and other

²⁶⁶ Town, Village, and District Petition at 41.

²⁶⁷ See *Vermont Yankee*, CLI-16-17, 84 NRC at 124-26.

²⁶⁸ See Decommissioning of Nuclear Power Reactors; Final Rule, 61 Fed. Reg. 39,278, 39,281 (July 29, 1996) (Decommissioning Rule).

²⁶⁹ See 10 C.F.R. § 50.82(a)(6)(ii).

²⁷⁰ 10 C.F.R. § 50.82(a)(4)(i). Section 5 of the PSDAR sets forth the reasons for HDI’s conclusion that the environmental impacts of decommissioning Indian Point are bound by prior environmental impact statements. PSDAR at 19-41.

²⁷¹ See *Vermont Yankee*, CLI-16-17, 84 NRC at 123-24; Decommissioning GEIS at 1-11, 2-3; Decommissioning Rule, 61 Fed. Reg. at 38,283, 39,286.

²⁷² *Exelon Generation Company, LLC* (Oyster Creek Nuclear Generating Station), CLI-19-6, 89 NRC 465, 480 (2019).

previously issued environmental impact statements.²⁷³ If the Local Petitioners have grounds to assert that the impacts of planned decommissioning, site restoration, and spent fuel management activities at Indian Point exceed those referenced in the PSDAR, their recourse would be a petition for enforcement action to address a potential violation of our rules associated with representations made in the PSDAR.²⁷⁴

In addition, we are unpersuaded by the Local Petitioners' argument that this case involves an impermissible segmentation of a larger federal licensing action into smaller component parts—the license transfer application, the exemption request, and the PSDAR—to avoid NEPA review.²⁷⁵ As explained above, the license transfer application and exemption request were considered together, and the environmental effects of each proposed action were fully considered. Our regulations require an analysis of the environmental effects of the exemption request, which HDI prepared and the Staff independently reviewed. And although their consideration lies outside the scope of this proceeding, the impacts of decommissioning activities have been previously subjected to review in several environmental impact statements referenced in the PSDAR.²⁷⁶ The Local Petitioners have not explained why these analyses are insufficient under NEPA or how further environmental review would shed additional light on the license transfer decision in this case. We therefore find this aspect of the Local Petitioners' second contention inadmissible.

²⁷³ PSDAR at 19.

²⁷⁴ See 10 C.F.R. § 2.206.

²⁷⁵ See Town, Village, and District Petition at 37.

²⁷⁶ See PSDAR at 19 (citing Decommissioning GEIS; “Generic Environmental Impact Statement in Support of Rulemaking on Radiological Criteria for License Termination of NRC-Licensed Facilities” (Final Report), NUREG-1496, vols. 1-3 (July 1997) (ML042310492, ML042320379, ML042330385); “Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 38, Regarding Indian Point Nuclear Generating Unit Nos. 2 and 3” (Final Report), NUREG-1437, Supplement 38, vol. 1 (Dec. 2010) (ML103350405); Indian Point SEIS; 2013 License Renewal GEIS).

In sum, the Local Petitioners have not shown special circumstances justifying departure from the categorical exclusion in 10 C.F.R. § 51.22(c)(21) as it applies to the license transfer application. While the Local Petitioners are correct that the exemption request referenced in the application and later submitted to the NRC is subject to an environmental review, they did not challenge any specific part of the environmental analysis HDI provided in support of the exemption request. Finally, the Local Petitioners' challenges to the environmental information referenced in the PSDAR are outside the scope of this proceeding. We therefore conclude that the Local Petitioners have not submitted an admissible contention.

C. Riverkeeper's Petition

Riverkeeper's contention is that the application fails to demonstrate that the proposed transferees—HDI, Holtec IP2, and Holtec IP3—would be qualified to hold the licenses for Indian Point and therefore the application does not meet the requirements in 10 C.F.R. § 50.80(c).²⁷⁷ Riverkeeper asserts the proposed transferees have not shown the requisite "character, competence, and integrity, as well as the necessary candor, truthfulness, and willingness to abide by NRC regulatory requirements."²⁷⁸ As explained below, we find this contention inadmissible.²⁷⁹

A contention challenging the character or integrity of a licensee's managers may be admissible in specific circumstances; however, we have imposed strict limits on such contentions to ensure our hearing process does not become a forum to litigate historical events that have no direct bearing on the challenged licensing action.²⁸⁰ We have, for example, been

²⁷⁷ See Riverkeeper Petition at 9.

²⁷⁸ *Id.*

²⁷⁹ Because Riverkeeper's contention is inadmissible, we need not address Riverkeeper's standing.

²⁸⁰ See *Millstone*, CLI-01-24, 54 NRC at 366.

generally unwilling to admit contentions based solely on the past activities of a parent corporation because those activities do not bear directly on the conduct of those who will be responsible to conduct licensed activities in compliance with NRC requirements.²⁸¹ Admissible contentions challenging management character or integrity have generally been based upon the activities of high-ranking officers or directors of the licensed organization who would have some direct authority over the activities authorized by the license.²⁸²

Riverkeeper asserts no wrongdoing by the officers or directors of HDI, Holtec IP2, or Holtec IP3, who would be directly responsible for ensuring compliance with NRC requirements if the license transfer is granted. Riverkeeper instead bases its contention on prior activities by the proposed transferees' ultimate parent corporation, Holtec, and its Chief Executive Officer (CEO).²⁸³ Riverkeeper asserts that those activities are pertinent to this case because the license transfer application attaches the resume of Holtec's CEO and states that Holtec has "developed a mature nuclear safety culture and policies that will be integrated with existing [Indian Point] site polices."²⁸⁴ Riverkeeper does not explain what specific Holtec policies it considers to be problematic if the license transfer is granted; rather, it describes past examples of conduct by Holtec and its CEO that it considers evidence of Holtec's "lack of candor to regulatory agencies."²⁸⁵ However, the examples Riverkeeper provides are not directly related to

²⁸¹ See *FitzPatrick*, CLI-00-22, 52 NRC at 312.

²⁸² See, e.g., *Georgia Power Co.* (Vogtle Electric Generating Plant, Units 1 and 2), CLI-93-16, 38 NRC 25 (1993); *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111 (1995).

²⁸³ See Riverkeeper Petition at 13-19.

²⁸⁴ *Id.* at 12 (quoting Application, Encl. 1 at 6).

²⁸⁵ *Id.* at 14.

this license transfer proceeding and do not provide sufficient factual support for its contention that the proposed transferees are not qualified.

First, Riverkeeper cites two prior NRC enforcement cases to support its contention that did not involve the proposed transferees, their officers, or directors. In the first case, Holtec performed a screening evaluation to determine whether it could change the design of one of its spent fuel canisters under 10 C.F.R. § 72.48(c) without first obtaining NRC approval and mistakenly concluded that no NRC approval was required.²⁸⁶ The Staff identified the mistake during a routine NRC inspection in 2018 and notified Holtec. Holtec promptly corrected the issue.²⁸⁷ The Staff found no aggravating circumstances and gave credit to Holtec for “the absence of recent escalated enforcement action” against it, as well as for “Holtec’s prompt and comprehensive correction of the violation.”²⁸⁸ In the second case, Southern California Edison Company (SCE) failed to report a spent-fuel canister-loading problem at the San Onofre Nuclear Generating Station to the NRC Operations Center within 24 hours of its occurrence.²⁸⁹ Riverkeeper implies Holtec should have reported the incident apparently because it had contracted with SCE to implement the spent-fuel-loading project. However, our regulations required SCE—the licensee responsible for ensuring the safe loading and movement of the spent-fuel canister in its facility—to make the required report.²⁹⁰ We see nothing in the record of

²⁸⁶ See Letter from Michael C. Layton, NRC, to K.P. Singh, Holtec International (Nov. 29, 2018), Encl. 2 at 13-14, 17-18 (ML18306A853).

²⁸⁷ See Letter from George Wilson, NRC, to K.P. Singh, Holtec International (Apr. 24, 2019), at 2-3 (ML19072A128).

²⁸⁸ *Id.*

²⁸⁹ See Letter from Troy W. Pruett, NRC, to Doug Bauder, SCE (Dec. 19, 2018), Encl. 2 at 16-17 (ML18341A172).

²⁹⁰ See 10 C.F.R. § 72.75(d)(1).

either enforcement case to suggest that Holtec—much less the proposed license transferees in this proceeding—lacked candor or willingness to comply with NRC requirements.

Riverkeeper next cites a March 23, 2010, report by the Office of the Inspector General (OIG) for the Tennessee Valley Authority (TVA) to support its contention. The report found that a TVA employee, while negotiating with Holtec on behalf of TVA for spent fuel storage services in 2001, was at the same time negotiating with Holtec for employment and received more than \$50,000 “for his assistance in obtaining the TVA contract for [Holtec].”²⁹¹ The report also found that TVA paid Holtec unreasonably high prices for certain equipment and that Holtec “may have misled” TVA regarding equipment pricing.²⁹² Based on the report, Riverkeeper asserts that Holtec’s CEO is untrustworthy and Holtec may overcharge HDI for spent fuel storage services at Indian Point, which could in turn reduce funds available for facility decommissioning.²⁹³

Riverkeeper has shown no direct link between the matters described in the TVA OIG Report and the qualifications of the proposed transferees to safely decommission Indian Point. Riverkeeper does not contend that any officers or directors of the proposed transferees were involved in the matters that gave rise to the TVA OIG Report, for example, and acknowledges that Holtec took corrective actions in response to the TVA OIG Report nearly a decade ago.²⁹⁴ These previously addressed problems concerning Holtec’s dealings with TVA are not probative

²⁹¹ Memorandum from John E. Brennan, TVA OIG, to William R. McCollum, Jr., and Ralph E. Rodgers, TVA (Mar. 23, 2010), at 2, https://publicwatchdogs.org/wp-content/uploads/2019/07/2010.23.03_Redacted_Holtec-TVA-OIG-Report.pdf.

²⁹² *Id.* at 7.

²⁹³ Riverkeeper Petition at 17.

²⁹⁴ *See id.* at 16. As corrective actions, Holtec appointed a corporate governance officer and independent monitor, implemented a new code of conduct and training for company personnel, added three new independent board members, and agreed to monitoring of its operations for a year. *See* Tennessee Valley Authority, Office of the Inspector General, “Semiannual Report” (Oct. 1, 2010 – Mar. 31, 2011), at 8, 35, <https://oig.tva.gov/reports/semi50.pdf>.

of the integrity or technical competence of the proposed transferees to comply with our requirements; they are therefore outside the scope of this proceeding.²⁹⁵ Accordingly, we find Riverkeeper's assertion that the proposed transferees cannot be trusted based on the contents of the TVA OIG Report inadmissible.

Riverkeeper next cites a 2014 tax-credit application by Holtec to the State of New Jersey to support its contention that the proposed transferees lack integrity. Riverkeeper notes that, according to media reports, Holtec did not initially disclose on its 2014 application to New Jersey that it had been temporarily prohibited from contracting with TVA in 2010.²⁹⁶ Holtec explained the omission was inadvertent and asked the State to correct the record, but Riverkeeper disputes that explanation and claims it is "scarcely credible" that Holtec's CEO, who signed the application and who was involved in the TVA contracting case in 2010, made a mistake in not disclosing the debarment.²⁹⁷ But whether Holtec's CEO made a mistake on the tax-credit application and whether it was material to the State of New Jersey's decision are outside the scope of this proceeding, which is to determine whether HDI, Holtec IP2, and Holtec IP3 are qualified to hold NRC licenses.²⁹⁸ Riverkeeper has not shown a direct and obvious link between Holtec's tax-credit application and the qualifications of the proposed transferees.

²⁹⁵ See, e.g., *Metropolitan Edison Co.* (Three Mile Island Nuclear Station, Unit No. 1), CLI-85-9, 21 NRC 1118, 1137 (1985) (finding that the previously corrected inadequacies of prior management, who no longer would be responsible for licensed activities, were not probative of the integrity of current company management).

²⁹⁶ Riverkeeper Petition at 17.

²⁹⁷ *Id.* at 17-18.

²⁹⁸ A New Jersey task force is looking into the matter. See Nancy Solomon and Jeff Pillets, *A False Answer, a Big Political Connection and \$260 Million in Tax Breaks*, (May 23, 2019), available at <https://www.propublica.org/article/holtec-international-george-norcross-tax-breaks> (last visited July 2, 2020). If the task force yields findings that bear on Holtec's applications pending before the NRC or on its licensed activities, we will consider the findings and respond as appropriate.

Finally, Riverkeeper asserts that Holtec made misrepresentations to the NRC in a separate, currently pending license application to construct and operate a consolidated interim-storage facility (CISF) in New Mexico.²⁹⁹ Riverkeeper relies on a June 19, 2019, letter from the New Mexico Commissioner of Public Lands to Holtec in support of its contention; the letter asserts that Holtec's CISF application does not accurately describe the mineral estate beneath the proposed CISF site.³⁰⁰ We have referred a similar, character contention in the Holtec CISF proceeding—which Holtec disputes—to the Licensing Board for a determination of its admissibility because it may relate directly to siting issues pertinent to that application.³⁰¹ In this proceeding, however, Riverkeeper has shown no direct link between the description of the mineral rights underlying Holtec's proposed CISF site in New Mexico and the decommissioning of Indian Point or the qualifications of HDI, Holtec IP2, or Holtec IP3.

After filing its hearing request, Riverkeeper filed a motion on October 20, 2020, to supplement the basis for its contention, claiming a media report and court filings from late June 2020 indicate Holtec is under criminal investigation by New Jersey for statements Holtec made in its tax credit application.³⁰² However, this does not appear to be new or materially different information from that contained in Riverkeeper's hearing request, which also asserted Holtec

²⁹⁹ Riverkeeper Petition at 18-19.

³⁰⁰ The New Mexico Commissioner of Public Lands addressed her June 19, 2019, letter to Holtec and copied the NRC Chairman. The Secretary of the Commission then added the letter to the adjudicatory docket for the Holtec CISF licensing proceeding. See Letter from Denise L. McGovern, NRC, to Stephanie Garcia Richard, State of New Mexico (July 2, 2019) (ML19183A429).

³⁰¹ See *Holtec International* (HI-STORE Consolidated Interim Storage Facility), CLI-20-4, 91 NRC __ (2020) (slip op. at 55).

³⁰² Riverkeeper Motion to Supplement at 1.

was under investigation by New Jersey for statements made in its tax credit application.³⁰³ Moreover, as discussed above, New Jersey's investigation of Holtec is not directly linked to the qualifications of the proposed transferees, and Riverkeeper's motion presents no new information that changes our analysis.³⁰⁴ We therefore deny this aspect of Riverkeeper's motion.³⁰⁵

Riverkeeper also claimed in its motion that new information shows wrongdoing by one of the proposed transferees, HDI. According to Riverkeeper, HDI intentionally violated local permitting requirements in the decommissioning of Oyster Creek.³⁰⁶ Riverkeeper based this assertion on a complaint by Lacey Township to the New Jersey Superior Court in May 2020, together with subsequent State and Federal court filings. However, when read together, these do not show a judicial finding that HDI intentionally violated local permitting requirements. Rather, they show that HDI and Lacey Township had a legal dispute over whether local permits were required for certain construction activities at Oyster Creek and whether the Atomic Energy Act preempts local permitting decisions. Riverkeeper has not shown how these legal disputes regarding Lacey Township's permitting authority relate to its original contention or raise a

³⁰³ Riverkeeper cited a May 23, 2019, media report in its hearing request, which stated New Jersey had undertaken an investigation of Holtec's tax credit application and that the investigation could lead to criminal penalties. See n.298, *supra*.

³⁰⁴ See Section II.C, *supra*.

³⁰⁵ Riverkeeper's motion also briefly asserts that Holtec may be experiencing financial impacts from the loss of tax credits initially awarded but later withdrawn by New Jersey. See Riverkeeper Motion to Supplement at 1, 4-5. To the extent Riverkeeper seeks to raise this as a new contention regarding the financial qualifications of the proposed transferees, it has not adequately explained why this issue could not have been raised earlier or how it relates to the financial qualifications of the proposed transferees. Therefore, it does not meet our contention admissibility standards. See 10 C.F.R. §§ 2.309(c), (f)(iii)-(v).

³⁰⁶ See Riverkeeper Motion to Supplement at 3-5.

material issue within the scope of this license transfer proceeding.³⁰⁷ We therefore deny this aspect of Riverkeeper's motion.

Riverkeeper also filed a motion on November 6, 2020, which requested that we waive our regulations that allow the Staff to make a decision on a license transfer application prior to a decision on pending adjudications and that we fully resolve Riverkeeper's hearing request and contention before the Staff's decision on the license transfer application.³⁰⁸ The Staff approved the license transfer on November 23, 2020, in accordance with 10 C.F.R. § 2.1316, which directs the Staff to issue its approval or denial of a license transfer application notwithstanding the pendency of a hearing. Were we to have resolved Riverkeeper's motion prior to the Staff's approval of the license transfer, we would have denied it because the motion did not meet our standards for granting a waiver of 10 C.F.R. § 2.1316. The standards for waiver of a regulation are set forth in 10 C.F.R. § 2.335(b) and require a showing of special circumstances such that application of the rule at issue would not serve the purposes for which it is intended. The purpose of 10 C.F.R. § 2.1316(a), along with the other requirements of 10 C.F.R. Subpart M, is to ensure timely decisionmaking in all license transfer cases, even those cases where a hearing may be pending, because license transfer transactions are typically time sensitive and do not involve technical changes to facility operations or license requirements governing safety.³⁰⁹

Riverkeeper urged that we grant their motion because this case involves a reactor that

³⁰⁷ See 10 C.F.R. § 2.309(f)(1)(iv).

³⁰⁸ See Riverkeeper Motion for Waiver at 1-6.

³⁰⁹ See License Transfer Rule, 63 Fed. Reg. at 66,721-22. While 10 C.F.R. § 2.1316 may result in Staff approval of a transfer prior to the resolution of all pending hearing requests, the Commission retains authority to take appropriate action in the event a hearing is granted and ultimately reveals a need to modify or rescind the Staff's decision. See *Pilgrim*, CLI-19-11, 90 NRC at 262-63.

will undergo decommissioning.³¹⁰ However, Riverkeeper's motion did not show that the transfer involves any changes to technical requirements governing facility operations during decommissioning. Riverkeeper's motion thus does not satisfy the standards for a waiver and we decline to treat this case differently from other license transfer cases involving power reactors.³¹¹ Regardless, because the license transfer has been approved by the Staff and we find that Riverkeeper has not submitted an admissible contention, the motion is moot.³¹²

In summary, Riverkeeper's contention that the proposed transferees lack the requisite character to hold an NRC license largely cites examples of conduct by their ultimate parent corporation and its CEO in matters outside the scope of this proceeding. For each example, there is either no indication of wrongdoing, corrective actions were taken several years ago, or the disputed facts are under review in an appropriate venue. Riverkeeper has provided no

³¹⁰ See Riverkeeper Motion for Waiver at 5. Riverkeeper's motion also argued that resolution of its contention after the transfer is approved could lead to inefficiency and uncertainty. *Id.* at 4-5. However, the fact that a hearing on a contention might occur is not a basis to waive the rule that authorizes the Staff to issue its approval or denial under those very circumstances.

³¹¹ See, e.g., *Power Authority of the State of New York* (James A. FitzPatrick Nuclear Power Plant; Indian Point, Unit 3), CLI-00-22, 52 NRC 266, 286 & n.1 (2000) (granting hearing requests although the Staff had issued orders approving both license transfers and the companies had closed on the sale of the two nuclear reactor plants); *Power Authority of the State of New York* (James A. FitzPatrick Nuclear Power Plant; Indian Point, Unit 3), CLI-01-14, 53 NRC 488 (2001) (declining, following a hearing on the merits, to disturb the Staff's approval of the license transfers); *Vermont Yankee*, CLI-00-17, 52 NRC at 83 (intervention petitions were pending before the Commission although the Staff had issued order approving the transfer); *Entergy Nuclear Operations, Inc. and Entergy Nuclear Palisades, LLC* (Palisades Nuclear Plant), CLI-08-19, 68 NRC 251, 257 n.8 (2008) (decision on intervention petitions issued after Staff had issued order approving transfer).

³¹² Riverkeeper's motion for a waiver of 10 C.F.R. § 2.1316(a) is, in effect, a request for a preemptive stay of the Staff's licensing decision, something our license transfer regulations do not contemplate. Rather, our regulations allow requests for a stay of the Staff's licensing decision after it is issued. See 10 C.F.R. § 2.1327. Riverkeeper did not address the standards for obtaining a stay in its motion, nor did it request a stay of the Staff's licensing decision after it was issued.

examples of conduct by the proposed transferees, their officers, or directors in support of its contention. Accordingly, we find Riverkeeper's contention inadmissible.

D. Safe Energy Rights Group's Letter

In a one-page letter submitted in February 2020, SEnRG requests a hearing on behalf of "the 20 million people living and working within the 50 mile radius" of Indian Point so that they can express "grave concerns" about the proposed transferees' ability to safely decommission the facility.³¹³ But SEnRG does not address the requisite factors for establishing standing to intervene in an NRC adjudicatory hearing. The letter includes no supporting affidavits from any of SEnRG's members and does not address SEnRG's organizational interests. Therefore, SEnRG has not demonstrated standing to intervene on behalf of any of its members or on behalf of itself as an organization.

SEnRG also has not submitted an admissible contention. SEnRG asserts the application should be denied because the proposed transferees are shell companies with no "seed capital." SEnRG asserts that the proposed transferees would rely on an exemption from our decommissioning funding rules to pay for waste handling and then "request reimbursement from the Treasury for those expenses," which "amounts to double payment for activities that are not even among the allowed 'decommissioning activities.'"³¹⁴ But SEnRG does not address how its concerns meet our contention admissibility standards and does not specifically dispute information in the application regarding HDI's financial qualifications. SEnRG also asserts that the PSDAR omits mention of the Algonquin Pipeline and fails to include a plan for remediating contaminated water beneath the site.³¹⁵ SEnRG does not explain why that information should be considered within the scope of this proceeding, which does not involve approving the

³¹³ SEnRG Letter at 1.

³¹⁴ *Id.*

³¹⁵ *Id.*

PSDAR or any decommissioning plans, but instead is to determine whether the proposed transferees are financially and technically qualified to hold the Indian Point licenses. Accordingly, we find SEnRG has not raised a genuine, material dispute within the scope of this proceeding.

III. CONCLUSION

For the reasons outlined in this decision, we *deny* the requests for hearing and petitions to intervene, as well as subsequent motions filed by New York and Riverkeeper, and *terminate* this proceeding.

IT IS SO ORDERED.

For the Commission



Annette L. Vietti-Cook
Secretary of the Commission

Dated at Rockville, Maryland,
this 15th day of January 2021.

Commissioner Baran, Dissenting in Part

In this license transfer proceeding for the Indian Point Energy Center, the State of New York submitted three contentions challenging Holtec's financial qualifications. The Town of Cortlandt, Village of Buchanan, and Hendrick Hudson School District (together, Local Petitioners) submitted two contentions – one challenging Holtec's financial qualifications and another arguing that NRC did not meet its obligations under the National Environmental Policy Act. The majority decision finds all five contentions inadmissible and denies the requests for a hearing. In my view, the majority decision takes an overly strict approach to contention admissibility and inappropriately delves into and decides the merits of aspects of the contentions. It also downplays the importance of the financial qualifications review at the time of license transfer. Therefore, I respectfully dissent in part. I would admit aspects of New York's Contention 2 and Local Petitioners' Contention 1 and grant their requests to pursue those contentions at a hearing.

I. BACKGROUND

NRC regulations require a license transfer applicant like Holtec to demonstrate its financial and technical qualifications.¹ As the Indian Point reactors are permanently shut down, Holtec must demonstrate that it has the financial qualifications both to complete radiological decommissioning and to manage spent fuel until it is removed from the site. Because the exemption issued by the NRC Staff allows Holtec to withdraw funds from the decommissioning trust funds for non-radiological site restoration, those site restoration costs are also relevant to our review.

Holtec's wholly owned subsidiary Holtec Decommissioning International, LLC (HDI) relies solely on the funding in the Indian Point decommissioning trust funds to demonstrate its financial qualifications. As of October 31, 2019, the trust funds totaled approximately

¹ See 10 CFR § 50.82(a)(8)(i)(B) and (C); 10 CFR § 50.80(b)(1)(i).

\$2.1 billion. In its license transfer application, HDI estimates that it will spend approximately \$598 million for decommissioning, spent fuel management, and site restoration activities at Indian Point Unit 1, \$702 million at Unit 2, and \$1.002 billion at Unit 3. These estimates include an 18% contingency allowance for decommissioning and site restoration activities. Based on its projected 15-year work schedule and an assumption that assets in the decommissioning trust funds will grow at a 2% annual real rate of return, HDI estimates that approximately \$263 million will remain in the decommissioning trust funds after it has completed work at Indian Point.

II. NEW YORK'S CONTENTION 2.B AND LOCAL PETITIONERS' CONTENTION 1.A

New York and the Local Petitioners argue that HDI has not demonstrated adequate financial assurance because it has underestimated decommissioning, spent fuel management, and site restoration costs. They contend that HDI's cost estimate "unreasonably fails to account for the substantial likelihood that [HDI] will discover additional contamination once work has begun."² New York and the Local Petitioners also argue that the contingency allowance included in HDI's cost estimate to cover unforeseen events is insufficient to cover likely additional contamination.

A. Additional Contamination

New York and the Local Petitioners identify several types of radiological and non-radiological contamination they contend are likely to be present at Indian Point but that HDI did not address in its cost estimates. They argue that the costs of cleaning up the undiscovered contamination could be substantial and "are likely to cause a shortfall in the decommissioning, site restoration, and/or spent fuel management funding," which "could imperil the Holtec LLCs' ability to complete the project."³

² New York Petition at 17; see *also* Town, Village, and District Petition at 16 (contending that "Holtec has failed to account for several significant, unanalyzed cost overrun scenarios").

³ New York Petition at 12, 26.

New York supports these arguments with detailed expert declarations. One declarant, Daniel Evans, is a Professional Engineer and Director of the Bureau of Hazardous Waste and Radiation Management within the New York State Department of Environmental Conservation (DEC). He has more than 23 years of experience in the investigation and cleanup of contaminated sites.⁴ Based on his extensive experience, his professional judgment is that it is “likely that contamination exists in locations [at Indian Point] that will not become accessible until the physical plant is removed” and that the potential contamination was “notably absent” from HDI’s decommissioning cost estimate.⁵ For example, he opines that “it is likely that previously undetected PCB contamination will be found during the course of site investigation at Indian Point and that the contamination will need remediation.”⁶ Mr. Evans contends that “[t]he presence of PCBs and other hazardous constituents such as lead and halogenated solvents will be a significant and costly environmental cleanup obligation.”⁷

Another declarant, George Heitzman, is a Professional Engineer with more than 36 years of experience in environmental remediation, primarily in hazardous waste cleanup.⁸ In his work for the New York DEC, he has toured Indian Point and “observed portions of the operational area of the Indian Point site where petroleum and PCBs have been released into the environment during facility operations and emergency events such as transformer fires.”⁹ He discusses the “at least 258 spills of petroleum, transformer dielectric fluid and unknown material [that] have occurred at Indian Point,” including 65 spills that DEC “was unable to completely

⁴ Evans Declaration ¶¶ 1, 3, 4.

⁵ *Id.* at ¶ 24.

⁶ *Id.* at ¶ 25.

⁷ *Id.*

⁸ Heitzman Declaration ¶¶ 1, 2.

⁹ *Id.* at ¶ 1.

investigate and/or remediate.”¹⁰ In his expert opinion, the numerous petroleum spills “that have yet to be fully remediated demonstrates the significant uncertainty regarding the full extent of contamination at Indian Point.”¹¹ He also discussed a specific transformer fire that resulted in the release of dielectric fluid, firefighting foam, and contaminated water, which “may have escaped into fractures in the shallow bedrock beneath the plant.”¹² Mr. Heitzman states that, in DEC’s experience, “the presence of transformer oil and firefighting foam contaminants in fractured bedrock and groundwater has a high potential to be difficult and expensive to remediate.”¹³ According to Mr. Heitzman, HDI’s cost estimate assumes that demolition will require excavation of three feet below grade to remediate non-radiological contamination, but many non-radiological contaminants “are known to migrate in the environment to significantly greater depths than three feet.”¹⁴ He concludes that HDI’s three-foot excavation assumption “is inadequate and faulty from an engineering and remedial perspective.”¹⁵

A third declarant, Timothy Rice, has been a DEC health physicist for more than 25 years and has done radiological environmental characterization and remediation work at four nuclear power plant sites in New York, including Indian Point.¹⁶ His experience at the former Cintichem reactor and High-Flux Beam Reactor at Brookhaven National Laboratory inform his professional judgment that “the discovery of previously unanticipated radiological environmental contamination” at a decommissioning nuclear reactor can result in multi-year schedule delays

¹⁰ *Id.* at ¶ 10.

¹¹ *Id.*

¹² *Id.* at ¶ 12.

¹³ *Id.*

¹⁴ *Id.* at ¶ 14.

¹⁵ *Id.* at ¶ 15.

¹⁶ Rice Declaration at ¶ 1, 2.

and significant cost overruns.¹⁷ Mr. Rice states that “based on more than twenty years of investigating numerous radiological incidents at Indian Point that have contaminated structures and spread radiological contamination through drainage systems and groundwater at the site,” it is his “professional opinion that Holtec will likely uncover significant additional radiological contamination that will increase the scope, remedial needs and cost of the decommissioning process at Indian Point.”¹⁸

These declarations support the conclusion that New York and the Local Petitioners have presented a disputed material question of fact for a hearing. NRC’s current regulations do not require HDI to perform a full site characterization at this stage of the decommissioning process. But that does not bar New York and the Local Petitioners from taking issue with the level of detail in HDI’s cost estimates.

B. Contingency Allowance

New York also challenges the adequacy of HDI’s 18% contingency allowance. According to New York, the contingency allowance “appears to assign virtually no value to costs associated with out-of-scope risks, including the likely discovery of additional radiological and non-radiological contamination.”¹⁹ Arguing that the 18% contingency allowance is unreasonably low, New York points to the Indian Point contingency allowances in Entergy’s Post-Shutdown Decommissioning Activities Report (PSDAR) from 2010. Entergy’s contingency allowances excluded out-of-scope work and still averaged 16.9%, which is only slightly lower than HDI’s 18% contingency allowance.²⁰ In addition, New York contends that “HDI never describes which

¹⁷ *Id.* at ¶¶ 26, 27.

¹⁸ *Id.* at ¶ 4.

¹⁹ New York Petition at 19.

²⁰ *Id.* at 20; Brewer Declaration ¶ 16.

risks or uncertainties, if any, are accounted for in the uncertainty allowance or risk allowance categories” of the contingency allowance.²¹

To help support its claim, New York offers the declaration of Warren Brewer, who has a master’s degree in nuclear engineering from the Massachusetts Institute of Technology, over 40 years of experience in the nuclear industry, and over 30 years of experience in decommissioning cost estimating and planning.²² He contends that “[t]here is no explanation in the LTA [license transfer application], PSDAR, or DCE [decommissioning cost estimate] that would explain why an additional one percent contingency is sufficient to account for these other risks” of “discrete events or uncertainties in scope or regulations.”²³

The Local Petitioners similarly challenge HDI’s contingency allowance.²⁴ According to the Local Petitioners, the PSDAR does not disclose the risk-simulation analysis HDI used to develop its contingency allowance or the “discrete risk events” underlying that analysis. They contend that, as a result, there is insufficient information to show how HDI determined that a contingency allowance of 18% would be adequate.²⁵

The core argument of New York and the Local Petitioners is that HDI did not explain the underlying assumptions behind the 18% contingency factor it used in its decommissioning cost estimate. This challenge is well supported. The Standard Review Plan for decommissioning cost estimates indicates that the NRC reviewer should check for a “description of how the contingency costs are calculated.”²⁶ In this case, HDI summarized its methodology in the DCE,

²¹ New York Petition at 19.

²² Brewer Declaration ¶¶ 1, 2.

²³ *Id.* at ¶ 16.

²⁴ Town, Village, and District Petition at 21-22.

²⁵ *Id.* at 21.

²⁶ See “Standard Review Plan for Decommissioning Cost Estimates for Nuclear Power

but it did not identify any of the underlying assumptions or factors that went into its risk-simulation analysis. It also did not outline the discrete risk events underlying its analysis. As a result, it is not possible to meaningfully assess HDI's contingency analysis.

Thus, there is a factual dispute about whether the 18% contingency factor is reasonable and sufficient. HDI asserts that it is. On the other hand, New York points out that, while HDI's contingency allowance apparently covers a broader scope of contingencies than Entergy's cost estimate, the HDI contingency factor is only 1.1% higher and "less in total dollars than the 16.9 percent contingency in Entergy's 2010 estimates."²⁷ Moreover, NRC's generic minimum formula for deriving a decommissioning cost estimates includes a 25% contingency allowance.²⁸ A hearing is required to resolve this factual question.

For these reasons, the issues raised in New York's Contention 2.B and Local Petitioners' Contention 1.A are admissible.

III. NEW YORK'S CONTENTION 2.C

New York also argues that HDI's cost estimates do not account for more stringent state law standards and requirements, which will increase decommissioning and site restoration costs. According to New York, HDI did not account for obligations flowing from: (1) the 2000 Con Edison-to-Entergy asset purchase and sale agreement for Units 1 and 2 and the Public Service Commission orders approving that transaction; (2) applicable DEC remediation standards; and (3) a contractual obligation owed to the New York State Energy Research and

Reactors" (Final Report), NUREG-1713 (Dec. 2004) at 27 (ML043510113) (Decommissioning Cost Estimate SRP).

²⁷ Brewer Declaration at ¶ 16.

²⁸ See Decommissioning Cost Estimate SRP at 18-19. Likewise, NRC expects licensees to use a specific contingency factor of 25% for ISFSI decommissioning (which HDI did). See "Consolidated Decommissioning Guidance, Financial Assurance, Recordkeeping, and Timeliness" (Final Report), NUREG-1757, vol. 3, rev. 1 (Feb. 2012), at 4-11 (ML12048A683).

Development Authority to remediate the leased Indian Point outfall structure.²⁹ For example, New York contends that, under DEC guidelines, radioactively contaminated soils must be remediated to a 10 millirem annual dose limit from all reasonable pathways to qualify for unrestricted release, not the 25 millirem assumed in HDI's cost estimate. New York argues that this discrepancy materially undermines the reasonableness of HDI's cost estimates.³⁰ In his declaration, Warren Brewer opines that these "State requirements beyond those assumed by Holtec ... could require greater expenditures for site restoration work, thus decreasing the amount of funds available for the completion of license termination work."³¹ Similarly, George Heitzman contends that the cost estimates do not reflect the scope of work necessary "for site restoration to greenfield conditions," which is the standard required by a condition of the 2001 license transfer to Entergy.³²

In response, Holtec argues that there is no basis for the State to impose stricter site cleanup requirements than those established by NRC. Holtec also contends that New York is raising issues outside the scope of this proceeding and that its argument is effectively a collateral attack on NRC regulations.

Holtec's arguments are not persuasive. States have authority to set site restoration standards, not NRC. Furthermore, because HDI received an exemption allowing it to use decommissioning trust fund assets to pay for site restoration, higher site restoration costs could impact the overall adequacy of the trust fund to cover decommissioning and spent fuel management activities. By pointing to specific state law standards and obligations HDI would be required to meet, New York raises a genuine dispute with the application as to whether HDI

²⁹ New York Petition at 28-31.

³⁰ *Id.* at 27 (citing 10 C.F.R. §§ 50.33(f), 50.75(b), 50.75(e)(1)(i)).

³¹ Brewer Declaration at ¶ 15.

³² Heitzman Declaration at ¶¶ 19, 20.

will be required to do substantially more site restoration work than is assumed in its cost estimates. The issues raised in New York's Contention 2.C are therefore admissible.

IV. NEW YORK'S CONTENTION 2.H

New York further argues that HDI's decommissioning cost estimate is inadequate because it assumes that it will take only one year per unit for reactor-internals and pressure-vessel segmentation.³³ According to New York, this schedule is "unreasonably short" and creates the potential for project delays that "could increase project costs by tens or even hundreds of millions of dollars, leading to a funding shortfall."³⁴

Supported by the declaration of Warren Brewer, New York contends that segmentation of a pressurized water reactor (PWR) like those at Indian Point is more complex and should be expected to take longer than segmentation of a boiling water reactor (BWR).³⁵ New York provides examples of BWR segmentation timelines proposed by HDI that exceed one year, including almost two years for the Pilgrim reactor and three years for the Oyster Creek reactor.³⁶ New York contends that HDI has not explained why it is reasonable to assume a shorter timeline for the more complex segmentation projects at Indian Point. New York states that a recent HDI extension of the Pilgrim segmentation schedule from two years to 3.25 years "further undermines its aggressive schedule" at Indian Point.³⁷

In my view, New York has raised a genuine dispute as to whether HDI will complete segmentation activities for each unit within one year, as the decommissioning cost estimate assumes. Although New York has not conclusively demonstrated that it will take longer than

³³ New York Petition at 48-52.

³⁴ *Id.* at 48-49.

³⁵ New York Petition at 50; Brewer Declaration ¶ 21.

³⁶ New York Petition at 50; Brewer Declaration ¶ 21.

³⁷ New York Petition at 51.

one year to complete this work, it is not required to do so at this stage of the proceeding. New York has presented a credible case that HDI's segmentation timeline and cost estimate are overly optimistic. This open factual question will need to be resolved at a hearing. The issues raised in New York's Contention 2.H are therefore admissible.

V. CONCLUSION

For these reasons, I would *grant in part* the State of New York's request for a hearing and admit the specified portions of New York's Contention 2; and *grant in part* the Local Petitioners' request for a hearing and admit the specified portions of the Local Petitioners' Contention 1. With respect to Riverkeeper's November 6, 2020, motion, I agree with the majority that the motion is moot but do not join the discussion of whether Riverkeeper meets the standards for granting a waiver of 10 C.F.R. § 2.1316.

Commissioner Hanson, dissenting in part

I join in part and respectfully dissent in part from the majority's decision in this proceeding. I am troubled by the inordinately high standards we continue to impose on petitioners in license transfer proceedings. Here, as in other recent proceedings, the majority relies on the prospective licensee's presumed compliance with future regulatory obligations—for example, the requirement that a licensee supplement its financial assurance in certain circumstances—as a basis for finding that New York and the Local Petitioners do not raise a genuine dispute with the license transfer application. As a result, the majority imposes standards that far exceed those provided in our regulations for contention admissibility and ultimately frustrate the opportunity for interested parties to request a hearing at this stage in the proceeding. While I appreciate that our regulations provide a holistic framework to assure that licensees have, and maintain, sufficient funding for decommissioning activities, the agency's reliance on future obligations to dismiss well-supported concerns at the license transfer stage undercuts the purpose of our regulatory structure and fails to provide accountability to the public.

I agree with the majority that the hearing requests of Riverkeeper and SEnRG should be denied, along with the motions of New York and Riverkeeper. However, I would grant the hearing requests of New York and Local Petitioners, in part. New York has met the standards for admission of Contention 2, based on concerns regarding additional contamination, the adequacy of the contingency allowance, and the reactor vessel segmentation timeline.¹ Local Petitioners, based on claims of additional contamination and adequacy of the contingency

¹ See *Petition of the State of New York for Leave to Intervene and for a Hearing* (Feb. 12, 2020) (ML20043E118) (New York Petition).

allowance in Contention 1, have also met these standards.² I would therefore admit the specified portions of New York's Contention 2 and Local Petitioners' Contention 1 for the reasons described below.

As a basis for disputing the cost estimates provided by the Applicants for license termination, site restoration, and spent fuel management activities, New York provides a substantial discussion of potential sources of contamination at Indian Point supported by expert opinion.³ New York and its experts discuss the extent of this contamination and the probability that there may be sources of contamination yet to be identified at the site.⁴ Local Petitioners also dispute the adequacy of the application to account for certain potential sources of existing contamination at the Indian Point site and offer examples of increased cost and delay caused by unanticipated contamination at other decommissioning sites.⁵

The majority dismisses these well supported claims of potential and existing contamination as insufficient to demonstrate a genuine dispute with the application. In the majority's view, even if additional contamination exists, or the extent is larger than anticipated, the adequacy of the license transfer application is not called into question because the NRC's regulatory structure will assure that sufficient funds are available for decommissioning.

While I recognize that a full site characterization is not required at this stage in the proceeding, and I do not suggest that the Applicants need to perform one at this time, I find that New York and Local Petitioners raise a factual dispute sufficient to support a hearing on the

² See *Town of Cortlandt, Village of Buchanan, and Hendrick Hudson School District's Petition for Leave to Intervene and Hearing Request* (Feb. 12, 2020) (ML20043F054) (Town, Village, and District Petition).

³ See New York Petition at 21-25; *Declaration of Timothy B. Rice* (Feb. 7, 2020) ¶¶ 4, 13-22, 25, 28; *Declaration of George W. Heitzman* (Feb. 5, 2020) ¶¶ 9-15, and Exhibit D at 2, 8; *Declaration of Warren K. Brewer* (Feb. 11, 2020) ¶¶ 24-26.

⁴ See New York Petition at 25-26.

⁵ See Town, Village, and District Petition at 17-20.

issue of existing contamination. Even though cost estimates are uncertain by nature, we are obligated to acknowledge claims from interested persons that call these estimates into question. Our contention admissibility requirements are not intended to reach the merits of the dispute, but merely to assure that a genuine dispute on a material fact within the scope of the proceeding exists. Therefore, I would admit New York's Contention 2 and Local Petitioners' Contention 1 on this basis.

Further, New York and Local Petitioners make similar claims regarding the sufficiency of the contingency allowance provided in the application.⁶ The application describes the methodology used to calculate the contingency allowance, but New York and the Local Petitioners take issue with the lack of detail, particularly the inputs used.⁷ Although the majority notes that there is no requirement for this level of detail to be provided as part of the application, I agree with New York and Local Petitioners that it is difficult to meaningfully ascertain the contingency allowance value without it. Even though 18% is similar to the contingency allowances provided in other license transfers, I remain unconvinced that this is an adequate basis to reject a concern raised by an interested party that meets our contention admissibility standards. Therefore, I would admit New York's Contention 2 and Local Petitioners' Contention 1 on this additional basis, finding that they have raised a genuine dispute on a material issue within the scope of the proceeding.

New York also disputes the timeframe for reactor vessel internals and reactor pressure vessel segmentation provided in the application.⁸ In support of its proposed contention, New York provides expert testimony and numerous examples of segmentation activities at other sites

⁶ See New York Petition at 17-20; Brewer Declaration ¶¶ 16-17; see also Town, Village, and District Petition at 21-22.

⁷ See *id.*

⁸ See New York Petition at 48-52.

that took longer than the year allocated by the Applicants.⁹ New York further discusses the potential for schedule delays caused by the timeline and related cost overruns.¹⁰ The majority finds that New York has not shown the Applicants' timeline for segmentation is infeasible. However, New York has supported its claims with facts and expert opinion that call into question the estimated timeline for segmentation activities at Indian Point and explain how these delays could impact the cost estimates provided in the application. New York is only required to raise a genuine dispute on a material fact within the scope of the proceeding at this contention admissibility stage, and I find that it has done so here. Therefore, I would admit New York's Contention 2 on this additional basis.

I agree with the majority and would not admit Contention 2 on the other bases provided in New York's petition and subsequent motion, but I would like to clarify my perspectives on site restoration costs related to state law standards and costs associated with gas pipelines at Indian Point. New York argues as a basis for Contention 2 that the Applicants have failed to consider additional costs that might ensue from the application of state law standards and requirements for site restoration.¹¹ The Applicants argue that this is inadmissible as outside the scope of the proceeding and not within the NRC's jurisdiction.¹² On this latter point, I disagree. While the NRC would ordinarily not address such matters within a license transfer proceeding, here the Applicants have requested an exemption to use the Decommissioning Trust Fund for site restoration activities. This brings such concerns within the scope of the proceeding.

⁹ See *id.* at 50; Brewer Declaration ¶ 21.

¹⁰ See *id.* at 52; Brewer Declaration ¶ 19.

¹¹ See New York Petition at 27-32.

¹² See *Applicants' Answer Opposing Petition for Leave to Intervene and Hearing Request Filed by the State of New York* (Mar. 9, 2020) at 44-45 (ML20069K756) (Applicants' Answer to New York Petition).

However, as described in the order, the state law standards cited by New York are preliminary, meaning that they are still the subject of various contractual, administrative, or judicial proceedings. It is on this basis that I find New York's argument does not support admitting Contention 2. Had the standards and obligations been settled, I may have supported a different outcome.

Finally, one of the bases provided by New York for Contention 2 addresses potential hidden decommissioning costs caused by gas pipelines on the Indian Point site.¹³ New York presents a few scenarios associated with the pipelines that could cause delay or increase the cost associated with decommissioning, and states that the application fails to address this site-specific aspect of Indian Point.¹⁴ However, the Applicants' answer disputes the potential scenarios put forth by New York and points to various places in the application and the PSDAR that address the gas pipelines at the site.¹⁵ New York does not dispute these claims and is in fact altogether silent on this basis in its reply brief.¹⁶ While site-specific features such as pipelines can be important in the consideration of decommissioning cost estimates, New York's silence on the matter ultimately fails to raise a genuine dispute, and this basis is inadmissible for that reason.

¹³ See New York Petition at 33-37.

¹⁴ See *id.* at 33-34; Brewer Declaration ¶ 14.

¹⁵ See Applicants' Answer to New York Petition at 55-56.

¹⁶ See *Reply in Support of the State of New York's Petition for Leave to Intervene and for a Hearing* (Mar. 23, 2020).

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of)	
)	
ENTERGY NUCLEAR OPERATIONS, INC.)	Docket Nos. 50-003-LT-3
)	50-247-LT-3
)	50-286-LT-3
(Indian Point Nuclear Generating Station,)	72-51-LT-2
Units 1, 2 and 3 and ISFSI))	

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing **Commission Memorandum and Order (CLI-21-01)** have been served upon the following persons by Electronic Information Exchange.

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Indian Point Nuclear Generating Station
Docket Nos. 50-003-LT-3, 50-247-LT-3, 50-286-LT-3 and 72-51-LT-2
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