~~CONFIDENTIAL INFORMATION SUBMITTED UNDER 10 C.F.R. § 2.390~~

January 27, 2023

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

In the Matter of	)	Docket Nos.	50-255-LT-2
ENTERGY NUCLEAR OPERATIONS,	)		50-155-LT-2
INC., ENTERGY NUCLEAR	)		72-007-LT
PALISADES, LLC, HOLTEC	)		72-043-LT-2
INTERNATIONAL, and HOLTEC	)		
DECOMMISSIONING INTERNATIONAL,	)	ASLBP No.	22-974-01-LT-BD01
LLC	)		
	)		
(Palisades Nuclear Plant and Big Rock Point Site)	)		

APPLICANTS' CONCLUDING STATEMENT OF POSITION ON MICHIGAN ATTORNEY GENERAL CONTENTIONS

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APPLICANTS' CONCLUDING STATEMENT OF POSITION ON MICHIGAN ATTORNEY GENERAL CONTENTIONS

Pursuant to the Atomic Safety and Licensing Board's ("Board") August 31, 2022 Memorandum and Order setting the schedule for submissions,[1] Entergy Nuclear Operations, Inc. ("ENOI"), Entergy Nuclear Palisades, LLC ("ENP") (ENOI and ENP, collectively "Entergy"), Holtec International ("Holtec"), and Holtec Decommissioning International, LLC ("HDI") (Entergy, Holtec, and HDI, collectively, "Applicants") submit this Concluding Statement of Position ("Concluding Statement") on the portions of the Michigan Attorney General's Contention MI-1 admitted for hearing by Commission Order CLI-22-08 ("Order")[2] on the Palisades license transfer application ("Application" or "LTA") and accompanying site specific decommissioning cost estimate ("DCE").[3]

I. INTRODUCTION

Applicants' other pleadings have adequately recounted the history of this proceeding and the issues admitted for hearing. This Concluding Statement focuses on what is actually in dispute now that Applicants and the Attorney General have presented their case. While the parties disagree on many legal points, including the scope of the hearing itself, the universe of disputed facts is actually quite limited.

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[1] "Memorandum and Order (Scheduling and Case Management Order)" (Aug. 31, 2022) (ADAMS Accession No. ML22243A168).

[2] *Entergy Nuclear Operations, Inc.* (Palisades Nuclear Plant and Big Rock Point Site), Memorandum and Order, CLI-22-08, __ NRC __, slip op. (July 15, 2022).

[3] Application for Order Consenting to Transfers of Control of Licenses and Approving Conforming License Amendments, Palisades Nuclear Plant, Docket Nos. 50-255 and 72-007, Renewed Facility Operating License No. DPR-20, Big Rock Point, Docket Nos. 50-155 and 72-043, License No. DPR-6 (Dec. 23, 2020) (ADAMS Accession No. ML20358A075) ("Application" or "LTA"); HDI Letter to NRC Document Control Desk, Post Shutdown Decommissioning Activities Report including Site-Specific Decommissioning Cost Estimate, Enclosure 1, Palisades Nuclear Plant Post Shutdown Decommissioning Activities Report (Dec. 23, 2020) (ADAMS Accession No. ML20358A232) ("PSDAR"); Enclosure 2, Palisades Nuclear Plant Site Specific Decommissioning Cost Estimate (Dec. 23, 2020) (ADAMS Accession No. ML20358A232) ("DCE").

On the first hearing issue—whether an eleven-year DOE fuel removal window is plausible—[redacted]. The Attorney General does not dispute Applicants' math. Instead, the Attorney General argues the Commission should not consider these scenarios and should just assume that DOE will remove Palisades fuel in the slowest and least efficient manner possible. But, if the Commission was going to accept that position, there would have been no need for this hearing. The time it will take DOE to remove Palisades's fuel under the strict "OFF" paradigm the Attorney General endorses was in front of the Commission when it issued the Order. That timeline was not (and still is not) in dispute. The Order directed Applicants to explain *how* the eleven-year schedule can be met using paradigms other than strict OFF.[4] Applicant's expert on SNF management modeling, Mr. Frank Graves, explained how. The Attorney General's arguments that the Commission should not consider his math miss the point of the hearing.

On the second issue—why the DCE is lower than the NRC regulatory formula—the areas of factual dispute are likewise very limited. Applicants' other expert, Mr. Chris Tierney, offered several reasons why the DCE diverges from the § 50.75(c) formula, [redacted]

[4] Mem. and Order, CLI-22-08, slip op. at 31 (emphasis added).

On the third issue—the reasonableness of 12% contingency—the Attorney General has taken a shotgun approach, throwing out scattershot claims that purport to undermine HDI's contingency calculation but which never actually address the ultimate question. Once again, the Attorney General offers no competing math. HDI's director of project controls, Mr. Allen Goulette, explained how HDI evaluated all the inputs and calculated the Palisades contingency. He also explained that the base estimate accounts for the type of "historically inevitable" costs the Commission requires licensees to cover at this stage of the project. The Attorney General offered no alternative quantification or contingency or any *analysis* for why HDI's methodology or inputs were flawed. Instead, the Attorney General's witness, Mr. Nicholas Capik, offered up a few demonstrably incorrect claims and posited his unsupported (and unsurprising) opinion that HDI's contingency is just too low. Even if he were a contingency expert, bare assertions aren't evidence. Regardless, all the Attorney General's arguments just nitpick contingency *as HDI calculated it*, but do not claim, much less demonstrate, that HDI failed to cover the "historically inevitable" costs that the Commission requires licensees to address at this stage of the project. The Attorney General aimed at the wrong target (and also missed that target).

Finally, the fourth issue admitted for hearing relates to HDI's and Holtec Palisades's means of adjusting funding under § 50.82(a)(8)(iv). Here, despite the unambiguous wording of the regulation, the Attorney General posits that "*over* the storage or surveillance period"[5] means, "*after* the storage or surveillance period." The Attorney General also takes a more optimistic view of DOE litigation timelines, suggesting that Holtec Palisades's recovery will come too early to be a sufficient means of adjusting funding. But neither argument ultimately matters to the outcome. HDI has line of sight to more than $100 million in funding beyond the NDT dollars allocated to

[5] 10 C.F.R. § 50.82(a)(8)(iv).

cover the current estimate. That funding is available to cover cost overruns both over and after the dormancy period. But Applicant's real disagreement is with the Attorney General's belief that HDI cannot credit *any* funding sources unless (1) the money will manifest in Holtec Palisades's bank accounts at the precise moment it might be needed, or (2) Holtec Palisades volunteers a license condition at the outset of the project that locks away some or all of its "means of adjusting" to ensure that Holtec Palisades does not spend it on something else. That legal position would make NRC regulations and ongoing oversight irrelevant, and it is irreconcilable with NRC precedent that (1) licensees are entitled to rely exclusively on NDT funds, (2) NRC will not assume licensees will willingly violate its regulations, and (3) the NRC does not impose license conditions to simply mandate compliance with its regulations.

Applicants have complied with the Commission's direction to further explain the handful of DCE assumptions admitted for hearing and to demonstrate the plausibility of those assumptions. None of the Attorney General's arguments prove that these portions of the DCE are implausible or unreasonable. The Commission should confirm the license transfer without further condition or limitation.

II. APPLICANTS' STATEMENT OF POSITION ON ADMITTED CONTENTIONS

A. Contention MI-1(a): Plausibility Eleven-Year DOE Pickup Window.

1. Applicants have shown that the eleven-year window assumed in the DCE is plausible based on pickup paradigms other than OFF.

The Commission told HDI to show how the eleven-year pickup window is plausible using pickup paradigms other than OFF.[6] HDI has done that.

[6] Mem. and Order, CLI-22-08, slip op. at 134.

In its Initial Statement, HDI offered the expert testimony and accompanying analysis of Mr. Graves to show that the eleven-year pickup window is a plausible timeframe for removal of all Palisades's fuel. [redacted]

2. The Attorney General's urgings to ignore HDI's analysis miss the point of the hearing and deprive HDI of its right to respond to the Order.

[redacted]

[redacted]

[redacted] The Attorney General has not identified any NRC regulation or guidance requiring licensees to prepare or submit a detailed analysis of spent fuel pick-up schedules. For the Attorney General to now suggest that HDI cannot offer expert analysis that confirms the plausibility of the fuel pick-up schedule assumed in its DCE ignores the entire point of this proceeding and would deprive HDI of its right to respond to the Commission's Order.

3. The Attorney General does not contest Applicants' math but instead tries to distract from the Commission's only question.

The Attorney General and Mr. Capik never challenge Mr. Graves's analysis head on.

- [redacted]
- [redacted]
- [redacted]
- [redacted]

[redacted]

- [redacted]

Instead of engaging with the substance, the Attorney General and Mr. Capik raise red herrings that the Commission already rejected and quibble with parts of Mr. Graves's testimony that are not necessary for the Commission to find that the eleven-year pickup window is plausible.

- Mr. Capik says that Mr. Graves's analysis would require changes to the NWPA.[13] This is wrong, and the Commission has said so.[14]
- [redacted]

[13] MICH019, Capik Rebuttal Test., at 8.

[14] [redacted] The Commission already rejected Mr. Capik's arguments that the NWPA obstructs DOE's ability to accept Palisades fuel. *See* Capik Declaration, at 7; Mem. and Order, CLI-22-08, slip op. at 26–27.

[redacted]

[redacted]

- Mr. Capik says that Mr. Graves's model is invalid because it assumes the "use of all projected DOE capacity for the receipt of canistered fuel (i.e. fuel that has been transferred to dry storage versus fuel stored in fuel pools)."[18] This is nonsensical and has already been rejected. Mr. Capik does not explain what he means, or how the fact that Palisades's fuel is in dry storage affects the DOE pickup schedule in light of the fact that a large portion of fuel from domestic reactors is also canistered. But there is no need to speculate or construct his argument for him, because he made the same claim in his original declaration and the Commission rejected it.[19]

At the end of the day, HDI has done exactly what the Commission ordered it to do—explain why the eleven-year pickup window is plausible using pickup paradigms other than OFF.[20] The Attorney General and Mr. Capik have not rebutted any of HDI's evidence.[21] The Commission should reject the Attorney General's challenge in Contention MI-1(a).

[18] MICH019, Capik Rebuttal Test., at 8.

[19] Mem. and Order, CLI-22-08, slip op. at 65–68; Capik Declaration, at 15–16.

[20] Mem. and Order, CLI-22-08, slip op. at 134.

[21] In her response brief, the Attorney General includes a bulleted list of criticisms of Mr. Graves's testimony. *See* Michigan Attorney General's Written Responses and Rebuttal Testimony with Supporting Affidavit, 10–11 (Dec. 16, 2022) (ADAMS Accession No. ML22350A747) (hereinafter "AG Written Response"). Most of these points are unsupported by any citations to testimony or other authority, and they are nothing more than straw men anyway. The Attorney General makes no attempt to connect this random list of grievances to Mr. Graves's testimony or explain how it would affect the acceptance paradigms he presents. Applicants will not articulate her arguments for her only to explain why they are all wrong. Bare claims in a pleading that are unaccompanied by explanation, testimony, or citations are not evidence.

B. Contention MI-1(b): Comparison of the DCE to the NRC Formula.

1. The Attorney General's new interpretation of § 50.75(b) is time barred and inapplicable to shutdown plants.

For the first time in her Written Response, the Attorney General now claims the § 50.75(c) formula serves as a regulatory minimum for purposes of the *LTA*, even accepting (or at least not challenging) that the formula does not constrain the *DCE*.[22] The crux of the Attorney General's argument is that, as the proposed transferee of the Palisades licenses, HDI was required to meet the requirements for an "applicant for . . . an *operating* license under Part 50," which, according to the Attorney General, includes the requirement that HDI provide "a decommissioning report that 'must contain a certification that financial assurance for decommissioning will be (for a license applicant), or has been (for a license holder), provided in an amount which may be more, but not less, than [the formula] in the table in [§ 50.75(c)].'"[23]

For starters, this argument is barred because it is offered for the first time in the Attorney General's rebuttal statement (and nearly two years after the Attorney General's initial petition), requiring Applicants to address this argument for the first time in this brief.[24]

More substantively, the argument ignores the fact that the LTA sought approval to transfer the license to HDI after shutdown, at which point NRC regulations and the Palisades license no longer authorized operations.[25] By the time the license transfer, DCE, and § 50.82(a)(8)(i)(A)

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[22] AG Written Response, at 12–13.

[23] *Id.* at 13 (quoting 10 C.F.R. § 50.75(b)(1)) (emphasis added).

[24] *See Nuclear Mgmt. Co., LLC* (Palisades Nuclear Plant), CLI-06-17, 63 NRC 727, 732 (2006); *La. Energy Servs. L.P.* (Nat'l Enrichment Facility), CLI-04-25, 60 NRC 223, 225 (2004); *La. Energy Servs. L.P.* (Nat'l Enrichment Facility), CLI-04-35, 60 NRC 619, 621 (2004); *Consumers Energy Co.* (Palisades Nuclear Power Plant), CLI-07-22, 65 NRC 525, 527–28 (2007).

[25] The effectiveness of the license transfer, DCE, and exemption authorizing use of trust funds for non-radiological costs were all conditioned on Entergy's submission of the § 50.82(a)(1)(ii) certification of permanent defueling. LTA, Encl. 1, at 3; 10 C.F.R. § 50.82(a)(2). *See also* PSDAR, at 2 ("This PSDAR is contingent upon NRC

exemption all took effect, NRC's requirements for Palisades had transitioned from an operational paradigm to a decommissioning paradigm.[26] The Attorney General does not dispute Applicants' and NRC staff's explanation that, as part of this transition, the certification requirements in § 50.75 cease to apply and licensees begin reporting against their § 50.82 site-specific cost estimate. Considering that the formula does not apply to a reactor in decommissioning, the Attorney General's argument that § 50.75(b) nevertheless constrains the LTA would require HDI to meet the funding requirements for an operating reactor, despite not having requested authority to own or operate one.[27] This argument would require *any* license transferee for *any* Part 50 license (including Big Rock Point and other generally-licensed ISFSIs) to provide funding to the full formula amount, even if decommissioning were nearly complete.[28] The Commission has

approval of the LTA and the transfer of the Palisades licenses. If the licenses are not transferred, this PSDAR will be ineffective."). DCE, at 1 ("This DCE provides the Holtec Decommissioning International (HDI) site-specific DCE for decommissioning following license transfers and sale of the entity that owns Palisades from Entergy to Holtec."); Safety Evaluation Related to Request for Direct and Indirect Transfers of Control of Facility Operating License DPR-6 for Big Rock Point and Renewed Facility Operating License DPR-20 for Palisades Nuclear Plant and ISFSI, 16 (Dec. 13, 2021) (ADAMS Accession No. ML21292A148) (hereinafter "SER") ("The staff is issuing its approval of the exemption request concurrent with its approval of the LTA; the exemption is effective immediately, but will only apply to Holtec Palisades and HDI if and when the proposed transfer transaction is consummated.").

[26] *See e.g.* Applicants' Initial Statement of Position on Michigan Attorney General Contentions, 28–37, n.105 (Nov. 18, 2022) (ADAMS Accession No. ML22322A324) (citing Decommissioning of Nuclear Power Reactors, 61 Fed. Reg. 39278 (July 29, 1996) ("For operating reactors, the amount of decommissioning funding required is generically prescribed in 10 C.F.R. § 50.75.")) (hereinafter "Applicants' Initial Statement"); NRC Staff Position on the Applicability of the 10 C.F.R. § 50.75 Minimum Funding Requirement to the License Transfer Application (Nov. 18, 2022).

[27] NRC does not require the same financial or technical demonstration from applicants seeking to own a shutdown plant as it does for operating plants. 10 C.F.R. § 50.33(f) states that "[each application shall state] information sufficient to demonstrate to the Commission the financial qualification of the applicant to carry out . . . the activities for which the permit or license is sought." Likewise, in reviewing other transfers for shutdown plants, NRC staff has only reviewed applicants' qualifications in light of the limited activities that are authorized by the license following shutdown. *See, e.g.*, 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, Exelon Generating Co., LLC, Zion Nuclear Power Station, Units 1 and 2, Docket Nos. 50-295 and 50-304,3 (May 4, 2009) (ADAMS Accession No. ML090930063) (hereinafter "Zion SER") ("[Zion*Solutions*] would not be allowed to conduct any of the operations contemplated by the financial qualifications provisions of 10 C.F.R. § 50.33(f)(2).").

[28] Of course, NRC did not apply that construction of its regulations to Big Rock Point and has not applied its regulations in such an obviously illogical way for other similarly-situated licenses. *See, e.g.*, NMSS, Safety Evaluation Related to the Energy*Solutions*, LLC Request for Indirect Transfer of Control of License Nos. DPR-39, DPR-48,

explained many times that it will not apply its regulations in an incoherent fashion that ignores the purposes of its overall regulatory scheme.[29] Accordingly, this argument must be rejected.

2. Applicants have provided reasonable explanations for the $30 million difference between the regulatory formula and the DCE.

In addition to the § 50.75(b) legal question, the Commission directed Applicants to "provide a more detailed or substantive explanation of the primary reasons that the cost estimate falls significantly below the formula amount."[30] The ostensible purpose of this comparison is to determine if the reasons HDI's estimate is lower than the generic formula are reasonably justified.

In Mr. Tierney's pre-filed direct testimony, he explained that, when properly compared, the difference between the DCE and the formula amount is $30 million.[31] [redacted]

DPR-73, DPR-45, AND DPR-43, and the General Licenses for the Associated Independent Spent Fuel Storage Installations, 8–9 (May 3, 2022) (ADAMS Accession No. ML22076A012) (approving indirect transfer of Zion, La Crosse, Kewaunee, and TMI 1&2 based on review of decommissioning funding against to-go costs to complete radiological decommissioning).

[29] As the Commission has held, "[i]n construing a regulation's meaning, it is necessary to examine the agency's entire regulatory scheme." *Florida Power & Light Co*. (Turkey Point Nuclear Generating Units 3 and 4), CLI-20-03, 91 N.R.C. 133, 141 (2020). It is a "basic tenet of statutory construction, equally applicable to regulatory construction, that a statue should be construed so that effect is given to all its provisions." *Hydro Resources, Inc.* (P.O. Box 777 Crownpoint, New Mexico 87313), CLI-06-11, 63 N.R.C. 483, 491 (2006).

[30] Mem. and Order, CLI-22-08, slip op. at 43.

[31] HOL002, Pre-Filed Direct Testimony of Mr. Christopher F. Tierney, at 19 (hereinafter "Tierney Direct Test.").

[redacted]

[redacted]

Given the purpose, vintage, and bounding assumptions in the formula, differences like these are to be expected, and HDI's alternative quantification of Palisades-specific cost drivers are grounded in reasonable differences between the DCE and the formula inputs.

- [redacted]
- HDI performed a site-specific contingency analysis based on an assessment of site-specific risk and uncertainty with input from site personnel and recent experience estimating other decommissioning projects—rather than simply adopting the generic 25% that the NRC has used over the years as a conservative buffer.
- HDI's business model, which did not exist when the formula was promulgated, lends itself to savings relative to the model assumed by PNNL: a utility hiring a third-party general contractor to manage one decommissioning project at a single reactor site.

[34] *Id.* at 36–37.

[35] *Id.* at 26.

3. The Attorney General does not contest Applicants' comparative analysis, other than to claim that it is implausible to rely on existing contract rates.

The Attorney General does not contest most of Applicants' analysis. Mr. Capik agreed that the appropriate comparison is in 2020 dollars, but claimed the difference is actually $98 million.[36] As Applicants and Mr. Tierney explained in their response pleadings and rebuttal testimony, Mr. Capik's claim is unsupported by logic or correct math and is contrary to NRC regulations.[37] Mr. Capik made no attempt to perform his own comparative analysis to explain this difference, concluding only that "[t]he lack of detail in the DCE makes substantive comparison of DCE costs to the NRC formula difficult."[38]

[redacted]

[36] MICH001, Testimony of Nicholas Capik, at 8 (hereinafter "Capik Direct Test.").

[37] HOL031, Pre-Filed Rebuttal Testimony of Christopher F. Tierney, 3–4 (hereinafter "Tierney Rebuttal Test."); Applicants' Response to Michigan Attorney General's Initial Statement of Position and Written Testimony, 13 (Dec. 16, 2022) (ADAMS Accession No. ML22350A788) (hereinafter "Applicants Written Response").

[38] MICH 001, Capik Direct Test., at 8.

[redacted]

There is, of course, no NRC regulation or guidance requiring or suggesting that a cost estimate be based on executed, fixed price contracts. On the other hand, NRC regulations *do* allow HDI to assume that costs will escalate at a rate that is 2% less than trust fund growth.[40] Beyond that, the Commission does not require prescience regarding the final price of every subcontract on the project. Instead, it simply requires that the estimates in the DCE be based on a plausible set of assumptions. [redacted] The Attorney General's arguments amount to a challenge to NRC regulations and an attempt to merely cast doubt without demonstrating that HDI's assumptions are "implausible or unrealistic in a way that is material to [the Commission's] assessment of reasonable assurance."[42]

Mr. Capik also claims, for the first time in his rebuttal testimony, that HDI assumed a Class A waste density of 80 pounds per cubic foot, which he says is too high.[43] This argument is just a reskinned version of his original challenge to HDI's waste volumes, which the Commission rejected in the Order.[44] Table 3-6 of the DCE, excerpted below, shows that HDI assumed Class A waste would be about 80 pounds per cubic foot (91,962,633 lbs. ÷ 1,128,683 ft^3 = 81.4 $lb./ft^3$).

[40] AG Written Response, at 14.

[redacted]

[42] Mem. and Order, CLI-22-08, slip op. at 18.

[43] MICH019, Capik Rebuttal Test., at 10.

[44] Mem. and Order, CLI-22-08, slip op. at 51–53.

Table 3-6, Waste Quantities from the DCE[45]

Waste	Class	Waste Volume (cubic feet)	Weight (lbs.)
Low-Level Radioactive Waste	A	1,128,683	91,962,633
	B	605	73,450
	C	168	16,198
Greater than Class C Waste	GTCC	345	54,548
Total		**1,129,800**	**92,106,830**

In his original declaration, Mr. Capik claimed that 92 million pounds is too low.[46] The Commission rejected that argument.[47] Mr. Capik now says 1.1 million cubic feet is too low, because he divided 92 million pounds by a waste density number he pulled from a Vermont Yankee powerpoint slide to get a higher volume.[48] Simply converting his argument from pounds to cubic feet does not get around the fact that the Commission already considered and rejected his challenge to Class A waste quantities. The workpapers Mr. Capik now cites are not new information; he could have come to the exact same conclusion using the table in the DCE that summarized those workpapers.[49]

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[45] DCE, at 36.

[46] Capik Declaration, at 10.

[47] Mem. and Order, CLI-22-08, slip op. at 53.

[48] MICH019, Capik Rebuttal Test., at 10–11. The Attorney General submitted the slide deck as MICH031. The slide in question provides numbers for "Total Volume" and "Total Weight" "[s]ince VY ownership under NorthStar" but does not say what those volumes or weights are made up of. Mr. Capik just calls it "waste" (MICH019 at 10), but even giving him the benefit of the doubt that those are low level rad waste numbers, Mr. Capik provided no explanation for why the average density of total low level rad waste reported by NorthStar from the date of its acquisition of Vermont Yankee through September 2022 is analogous to the average waste density of bulk Class A debris generated at Palisades over the whole project.

[redacted]

In any event, Mr. Buckley testified that he established Palisades's waste quantities by first estimating *volume* (cubic feet), not *weight* (pounds).[50] Given how HDI calculated waste quantities, multiplying the starting volume (ft^3) by Mr. Capik's preferred lower density (lbs./ft^3) would just reduce the overall weight of Class A waste (lbs.).[51] [redacted] Thus, even accepting Mr. Capik's procedurally barred and unsupported claim that HDI should have assumed all Class A bulk debris will have a density of 54 pounds per cubic foot, reducing density would not raise waste volumes, it would lower the weight. And by lowering the weight, it would reduce the weight-based elements of HDI's waste costs.

Returning to the ultimate point though, the Attorney General's only arguments in response to Applicants' explanation of why the DCE is lower than the generic formula are [redacted] HDI should have used a lower waste density that would actually reduce the DCE even further as compared to the formula.

[redacted]

[50] HOL003, Pre-Filed Direct Testimony of James B. Buckley, Jr., 6–7 (hereinafter "Buckley Direct Test."). [redacted]

[51] Mr. Capik claims that a lower density "would increase waste disposal volume and costs by almost 50 percent." MICH019, Capik Rebuttal Test., at 11. He does not show his math, but what he means is that dividing 92 million pounds of Class A waste (or whatever subset he believes should have a lower density, which he does not provide) by 54 lbs./ft^3 yields a quotient much higher than 1.1 million cubic feet. (92 million lbs. ÷ 54 lbs./ft^3 = 1.7 million ft^3). But the same simplistic math works in reverse if the volume, rather than weight, is fixed: 1.1 million ft^3 *x* 54 lbs./ft^3 = 59.4 million lbs.

[redacted]

Mr. Capik offered no alternative quantification of what HDI's overall waste disposal costs should be,[55] nor did he provide any analysis of why the alleged under-estimation of waste costs would be material such that it jeopardizes the overall available funding for Palisades decommissioning. In short, the Attorney General fell short of her burden.

C. Contention MI-1(c): The Reasonableness of HDI's Contingency.

The Commission directed Applicants to "explain how they calculated and derived the 12% level applied for contingency and concluded that this amount for contingency is reasonably adequate for Palisades."[56] While NRC regulations and guidance do not dictate how licensees are expected to quantify contingency, the Commission has explained that "a plausible decommissioning cost estimate will include an adequate contingency allowance."[57] And the Commission has also explained that "adequate" contingency "is intended to cover unforeseeable events that are almost certain to occur in decommissioning, based on industry experience;" is "expected to be fully expended;" and should cover "costs considered inevitable in a large project (e.g., weather delays, equipment breakage)."[58] On the other hand, licensees are not required to add contingency dollars for "potential but highly uncertain events or circumstances that may occur and increase costs,"[59] or to address the possibility that "cost judgments that may have been reasonable earlier may need to be readjusted later with real-time information."[60] For these kinds of

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[55] Mr. Capik claimed that using the density from the Vermont Yankee powerpoint slide "would increase . . . costs by almost 50 percent." MICH019, Capik Rebuttal Test., at 11. But that is based on the incorrect premise that lowering the density would increase the volume of waste, as addressed above.

[56] Mem. and Order, CLI-22-08, slip op. at 134.

[57] *Id.* at 49.

[58] *Id.* (quotations and citations omitted).

[59] *Id.* at 50, n.175.

[60] *Id.*

"unanticipated additional costs," the Commission relies on the annual review process to monitor and adjust funding if necessary.[61]

1. Applicants explained how they developed the 12% contingency factor and why it, along with other factors in the DCE, reasonably bound the types of "expected costs" that are required to be addressed at this stage of the project.

Mr. Goulette's pre-filed direct testimony responded to the Commission's directive to provide more details on how HDI established the Palisades's contingency.[62] [redacted]

[61] *Id.*

[62] HOL004, Pre-Filed Direct Testimony of Allen Goulette, 4–15 (hereinafter "Goulette Direct Test.").

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

2. The Attorney General's critiques of HDI's contingency improperly challenge NRC regulations, are factually incorrect, and are based on Mr. Capik's bare opinion.

In response to Applicants' pleadings and evidence, the Attorney General and Mr. Capik make a handful of misguided arguments but never address the ultimate question: whether HDI's DCE inadequately addressed historically inevitable costs in a way that materially impacts overall funding for decommissioning.

First, Mr. Capik agrees that the uncertainty portion of contingency goes beyond NRC's requirements. As he says, the uncertainty contingency "is not the same type of contingency that the industry and the NRC discuss which is expected to be fully consumed during decommissioning. Rather, this is Holtec's attempt to capture uncertainty in its cost estimating."[69] Applicants agree.

Beyond that, Mr. Capik offers up a raft of irrelevant, incorrect, already-rejected, and conclusory claims. Applicants have responded to most of these already and need not belabor each point here.

- Mr. Capik says HDI did not account for scope change,[70] but that is wrong.[71]
- He says HDI should have added contingency dollars to cover inflation,[72] but that just repeats his same challenge to NRC regulations that the Commission already rejected.[73]

[69] MICH019, Capik Rebuttal Test., at 12.

[70] MICH001, Capik Direct Test., at 9.

[71] HOL033, Pre-Filed Rebuttal Testimony of Mr. Allen Goulette, 2 (hereinafter "Goulette Rebuttal Test.").

[72] MICH001, Capik Direct Test., at 9.

[73] Mem. and Order, CLI-22-08, slip op. at 73–74.

- He misinterprets an AACE guideline that does not apply in the first place.[74] But even if the Commission considers that document, it actually *supports* HDI's contingency calculation.[75]
- He suggests that the contingency factor for ISFSI decommissioning in NUREG-1757 should apply,[76] but the Commission already said it doesn't.[77]
- He points out that Palisades has less contingency than other Holtec projects,[78] but he made that point in his original declaration, which the Commission considered in admitting this issue for hearing.[79] Simply repeating an uncontested fact adds nothing to this stage of the proceeding,[80] especially since Mr. Capik did not engage with the explanation Mr. Goulette gave for the lower Palisades contingency.[81]

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[74] MICH001, Capik Direct Test., at 9–10 (citing HOL035, AACE International Recommended Practice No. 18R-97).

[75] HOL031, Tierney Rebuttal Test., at 8–9.

[76] MICH001, Capik Direct Test., at 10.

[77] Mem. and Order, CLI-22-08, slip op. at 45–46.

[78] MICH001, Capik Direct Test., at 11.

[79] Mem. and Order, CLI-22-08, slip op. at 44 ("The Attorney General additionally notes HDI's own site-specific decommissioning cost estimates for the Oyster Creek, Pilgrim, and Indian Point license transfer applications, which included contingency allowances of 15%, 17%, and 19%, respectively.").

[80] Even accepting *arguendo* Mr. Capik's unsupported assertion that all the other Holtec projects are roughly equivalent and, thus, should have similar costs and contingency values, as the Commission explained, "a range of potential differing estimates and outcomes may be plausible, although some may be notably more or less conservative than others. For a demonstration of reasonable assurance of financial qualification, we do not demand the most conservative forecasts but will accept plausible forecasts." Mem. and Order, CLI-22-08, slip op. at 17. The ultimate question is whether the Palisades contingency is reasonable, not whether or why it is lower than contingency on other Holtec projects. *See Id.* at 24 ("[T]he pertinent question ultimately is not why HDI's cost estimate is less [than another estimate] but whether the estimate is reasonable"); *Id.* at 25 ("HDI had no obligation in the application to compare its estimates to [another] cost study and provide an analysis or explanation of cost differences."); *Id.* at 52 ("The Attorney General's comparison to two different decommissioning projects does not raise a genuine dispute with the application.").

[81] HOL003, Goulette Direct Test., at 15–16. Mr. Capik repeatedly claims, both in the context of contingency and otherwise, that HDI could not have learned any lessons on other projects because, in Mr. Capik's assessment, HDI had not performed enough decommissioning work at those other projects by the time HDI prepared the Palisades DCE. MICH001, Capik Direct Test., at 8, 12; MICH019, Capik Rebuttal Test., at 5–6. [redacted]

- [redacted] In addition to lacking any factual or analytical basis, that is just another way of challenging NRC regulations that allow HDI to assume costs will escalate at a rate that is 2% less than fund growth.[83]
- He claims the contingency should be higher (by some unspecified amount) because HDI doesn't have fixed-price contracts for work that will occur more than a decade in the future,[84] but he does not identify any requirement that cost estimates be based on fixed-price contracts (because there is none), [redacted]
- [redacted]

[redacted]

[82] MICH001, Capik Direct Test., at 12; MICH019, Capik Rebuttal Test., at 10.

[83] Applicants' Initial Statement, at 90.

[84] MICH001, Capik Direct Test., at 12.

[redacted]

[redacted]

None of these arguments offer any evidence that HDI's contingency is materially deficient in a way that jeopardizes overall funding or fails to reasonably address the types of "expected" costs that must be covered at this stage of the project.

D. Contention MI-1(d): Means of Adjusting Funding under § 50.82(a)(8)(iv).

1. The Attorney General continues to focus on potential cost overruns *after* the dormancy period, which is not required by § 50.82(a)(8)(iv).

Despite the clear wording of the regulation, the Attorney General continues to insist that "*over* the storage or surveillance period"[90] actually means *after* the storage or surveillance period:

- "For example, **if in year five of decommissioning (after dormancy)**, costs proved higher than estimated there is no mechanism for Holtec Palisades to retrieve funds paid to Holtec and HDI for home office costs incurred in years one through four."[91]

[redacted]

[88] MICH019, Capik Rebuttal Test., at 12, n.33.

[89] *Entergy Nuclear Operations, Inc.* (Pilgrim Nuclear Power Stations), CLI-20-12, 92 N.R.C. 351, 368 (2020) (emphasizing that the "mere casting of doubt . . . is not by itself sufficient to defeat a finding of reasonable assurance" (quoting *North Atlantic Energy Serv. Corp.* (Seabrook Station, Unit 1), CLI-99-06, 49 N.R.C. 201, 222 (1999))).

[90] 10 C.F.R. § 50.82(a)(8)(iv).

[91] AG Written Response, at 35 (emphasis added).

- "Also, Holtec did not assess any costs that may be incurred to demobilize and place the facility in a storage condition and costs to remobilize for dismantlement **should the shortfall be identified after dismantlement begins.**"[92]
- "Thus, the availability of funds recovered from DOE to address a shortfall that **may not occur until later in the decommissioning process (2038 or later)** is unlikely unless such funds are segregated and preserved."[93]

As Applicants have already explained, these arguments are irreconcilable with the unambiguous language of § 50.82(a)(8)(iv). And the Attorney General does not offer any interpretation of § 50.82(a)(8)(iv) to support her arguments. Instead, she relies on her reading of the Order and related NRC guidance, neither of which can amend NRC regulations.

In admitting this issue for hearing, the Order distinguished other recent license transfers (where intervenors also sought license conditions requiring escrow of DOE recoveries and additional parent commitments but were denied a hearing) on the basis that, unlike *this* proceeding, those license transfers "involved a decommissioning schedule without a dormancy period," and so § 50.82(a)(8)(iv) did not apply.[94] The Commission explained the policy justification for the "means of adjusting" requirement for plants with a dormancy period but not those pursuing a more accelerated schedule: "[w]here decommissioning is projected to begin soon [i.e., no dormancy period], and to be completed within several years, actual decommissioning costs also will be known relatively soon."[95] That justification is easily reconciled with the text of § 50.82(a)(8)(iv) because it assumes that the "means of adjusting" requirement is no longer needed once active

[92] *Id.* (emphasis added).

[93] *Id.* (emphasis added).

[94] Mem. and Order, CLI-22-08, slip op. at 79.

[95] *Id.*

decommissioning "is projected to begin soon"—*i.e.*, at the beginning of a DECON project or at the end of a SAFSTOR storage or surveillance period. Neither the regulatory text nor the Commission's stated policy justification is reconcilable with the Attorney General's demand that HDI must indefinitely provide a "means of adjusting" to cover any conceivable cost overrun on the project—during and after the dormancy period.

2. The Attorney General's claim that HDI's many alternative funding sources are meaningless without a license condition ignores NRC regulations and enforcement authority.

Ultimately, the Attorney General's incorrect reading of § 50.82(a)(8)(iv) does not matter though, because all of the "means of adjusting" described in Applicants' pleadings and testimony will be available in one form or another both during and after the dormancy period. While the Attorney General nibbles at the edges of Applicants' discussion of alternate funding sources, she does not really dispute that HDI will *have access to* more than $100 million dollars in the form of DOE recoveries, unallocated NDT funds, [redacted]

The Attorney General's real qualm with the means of adjusting funding that Applicants have identified is that none of them are irrevocably committed to Palisades decommissioning via a license condition *today*. But the Attorney General does not point to any NRC regulation or guidance that requires "means of adjusting" to take any specific form or be locked in via a license condition at the outset of decommissioning. Nor does she identify any guidance that NRC would use to determine how much "means" a licensee is required to supply beyond the reasonably expected costs in its DCEs. The Attorney General's logic makes § 50.82(a)(8)(**vi**)'s ongoing reporting and oversight irrelevant and runs counter to the Commission's explanation that NRC's

review at this stage of the project is just a "snapshot in time."[96] "The funding picture may change, but that is why the *NRC continues to oversee the status of licensees' funding until license termination*."[97] In support of that regulatory oversight, the NRC has enforcement authority that includes the ability to revoke HDI's § 50.82(a)(8)(i)(A) exemption or require additional funding sources be provided to support Palisades decommissioning if, at any point during decommissioning "the sum of the balance of any remaining decommissioning funds, plus earnings on such funds calculated at not greater than a 2 percent real rate of return . . . does not cover the estimated cost to complete the decommissioning."[98]

The Attorney General's preferred approach ignores NRC regulations and its enforcement authority and would mean that every licensee (or at least those subject to § 50.82(a)(8)(iv)) must commit to backup funding and corresponding license conditions at the beginning of every project. It is impossible for interest or surplus funds to indefinitely meet the instantaneous cash flow needs for any and all possible-yet-unrealized delays or cost increases over the life of any decommissioning project. Indeed, such a standard would make it unnecessary to perform a review of licensees' DCEs—since the added buffer would ostensibly commit licensees to funding beyond the reasonably expected costs projected by their estimates.

Beyond her apparent mistrust of LLCs, the Attorney General has offered no regulatory or factual basis for imposing such a requirement. The Commission has never accepted that justification and should not do so now in a way that undermines its regulatory framework.

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[96] *Id.* at 17.

[97] *Id.* (emphasis added).

[98] 10 C.F.R. § 50.82(a)(8)(vi).

3. The Attorney General's factual disputes with HDI's various additional funding sources are all immaterial to the ultimate question.

Mr. Capik's substantive challenges to the additional funding mechanisms available at Palisades are also misguided.

First, as Applicants pointed out in their Initial Statement, one means of adjusting funding over the dormancy period is the approximately $20 million of unallocated dollars in the NDT.[99] According to Mr. Capik, "this 'cushion' is only realized if the Palisades costs are significantly less than other Holtec projects (which includes its unreasonable assumptions regarding spent fuel management acceptance dates and annual costs)."[100] Applicants have exhaustively briefed why the estimates in the DCE are reasonable and why their projected spent fuel acceptance dates are plausible. There is no need to restate those points here. Mr. Capik does not contest that excess funds are available to offset increased costs. His claim that HDI shouldn't be allowed to credit this money as a "means of adjusting" for the possibility of cost increases (that he so adamantly insists will come to fruition) is illogical.

[redacted]

[99] Applicants' Initial Statement, at 87–88.

[100] MICH019, Capik Rebuttal Test., at 6.

[redacted]

[redacted]

Third, Mr. Capik takes issue with Holtec Palisades's ability to extend the dormancy period to allow the NDT time for further growth if it appears that additional funding would be necessary. According to Mr. Capik, "it is not clear that such extended dormancy would result in substantial additional funding."[104] [redacted]

Finally, Mr. Capik claims that any funds Holtec Palisades recovers from spent nuclear fuel litigation with the DOE will most likely be recovered by the end of 2032 and that "the availability

[redacted]

[104] MICH019, Capik Rebuttal Test., at 7.

[105] MICH001, Capik Direct Test., at 13.

[redacted]

of funds recovered from DOE to address a shortfall that may not occur until later in the decommissioning process (2038 or later) is unlikely unless such funds are segregated and preserved for decommissioning costs."[109] Mr. Capik does not contest that it is reasonable to assume Holtec Palisades will file a DOE claim in 2028—within the six-year statute of limitations applicable to spent nuclear fuel claims. Likewise, Mr. Capik does not take issue with the assumption that its recovery would likely exceed $90 million when it eventually files suit. Instead, Mr. Capik only takes issue with the fact that he believes Holtec Palisades would recover its costs from the DOE sometime in the 2032 timeframe, and that is too early to address shortfalls that might occur later in the decommissioning process.

Mr. Capik assumes Holtec Palisades will intentionally and irrevocably divest itself of DOE recoveries to avoid NRC funding requirements, which is an invalid starting premise. Putting that point aside, Mr. Capik just cherry-picked cases that involved an offer of judgment to squeeze the DOE litigation timeline down. Mr. Capik cites the River Bend 2 and 3, Indian Point 3, Palisades 3, Pilgrim 3, Grand Gulf 3, ANO3, Waterford 2, Duke 2 and 3, Dairyland 3, Yankee 2, SMUD 3, and Southern 2 cases for the proposition that "a typical time from the end of the period of incurred costs to recovery of costs is between three and four years."[110] But most of the cases he relies upon are cases in which the parties reached a settlement after the government made an offer of judgment.[111] Of the four cases that Mr. Capik cites that were fully litigated all the way to an award

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[109] MICH019, Capik Rebuttal Test., at 8.

[110] *Id.* at 7.

[111] This includes River Bend 2, Judgment, *Entergy Louisiana, LLC v. USA*, No. 1:16-cv-01717 (Fed. Cl. Aug. 23, 2019), ECF No. 41; River Bend 3, Judgment, *Entergy Louisiana, LLC v. USA*, No. 1:20-cv-00016 (Fed. Cl. Aug. 26, 2021), ECF No. 18; Indian Point 3, Judgment, *Entergy Nuclear Indian Point 2, LLC v. USA*, No. 1:19-cv-00949 (Fed. Cl. Oct. 12, 2021), ECF No. 30; Palisades 3, Judgment, *Entergy Nuclear Palisades, LLC v. USA*, No. 1:19-cv-00484 (Fed. Cl. Jan. 22, 2021), ECF No. 36, Pilgrim 3, *see* Judgment, *Holtec Pilgrim, LLC v. USA*, No. 1:19-cv-01159 (Fed. Cl. Aug. 3, 2021), ECF No. 38; Grand Gulf 3, Judgment, *System Energy Resources, Inc. v. USA*, No. 1:17-cv-01998 (Fed. Cl. Oct. 30, 2020), ECF No. 45; ANO3, Judgment, *Entergy Arkansas, Inc. v. USA*, No. 1:17-cv-

following a trial, two of them took over six years from filing to final payment from the government. Specifically, Yankee 2 was filed on December 14, 2007,[112] but final judgment wasn't entered until November 15, 2013.[113] The government satisfied that judgment by paying Connecticut Yankee, Yankee Atomic, and Maine Yankee on March 28, 2014.[114] The government also made an additional payment to Connecticut Yankee on October 26, 2015.[115] Similarly, Southern II was filed on April 3, 2008[116] and final judgment was entered on December 12, 2014.[117] The government satisfied that judgment by paying Alabama Power and Georgia Power on March 19, 2015.[118] Thus, if the government fully litigates the claims in the spent nuclear fuel lawsuit that Holtec Palisades plans to file in 2028, it is entirely reasonable to expect that Holtec Palisades likely would not receive payment until somewhere between five and eight years after filing. As a result, Holtec Palisades could reasonably expect payment on its initial complaint sometime between 2033 and 2036, which is about when the dormancy period would end and active decommissioning would begin at Palisades. Mr. Capik's opinion that Holtec Palisades would be paid earlier is just self-serving speculation. Accordingly, to the extent the timeline for DOE recoveries matter, it is

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00899 (Fed. Cl. Dec. 4, 2019), ECF No. 38; and Waterford 2, Judgment, *System Fuels, Inc. v. USA*, No. 1:18-cv-00148 (Fed. Cl. Apr. 28, 2020), ECF No. 31.

[112] *See* Complaint, *Connecticut Yankee Atomic Power Co. v. USA*, No. 1:07-cv-00875 (Fed. Cl. Dec. 14, 2007), ECF No. 1; Complaint, *Yankee Atomic Elec. Co. v. USA*, No. 1:07-cv-00876 (Fed. Cl. Dec. 14, 2007), ECF No. 1; Complaint, *Maine Yankee Atomic Power Co. v. USA*, No. 1:07-cv-00877 (Fed. Cl. Dec. 14, 2007), ECF No. 1.

[113] Judgment, *Connecticut Yankee Atomic Power Co. v. USA*, No. 1:07-cv-00875 (Fed. Cl. Nov. 15, 2013), ECF No. 134; Judgment, *Yankee Atomic Elec. Co. v. USA*, Nos. 1:07-cv-00875, 1:07-cv-00876, 1:07-cv-00876 (Fed. Cl. Nov. 15, 2013), ECF No. 134; Judgment, *Maine Yankee Atomic Power Co. v. USA*, No. 1:07-cv-00877 (Fed. Cl. Nov. 15, 2013), ECF No. 119.

[114] The dates on which the government satisfied the judgment by making payment from the Department of Treasury Judgment Fund may be found via the Treasury Department's Judgment Fund Payment Search page, located at https://jfund.fiscal.treasury.gov/jfradSearchWeb/JFPymtSearchAction.do.

[115] *Id.*

[116] *See* Complaint, *Alabama Power Co. v. USA*, No. 1:08-cv-00237 (Fed. Cl. Apr. 3, 2008), ECF No. 1.

[117] Judgment, *Alabama Power Co. v. USA*, No. 1:08-cv-00237 (Fed. Cl. Dec. 12, 2014), ECF No. 171.

[118] *See* https://jfund.fiscal.treasury.gov/jfradSearchWeb/JFPymtSearchAction.do.

reasonable to assume that Holtec Palisades will receive payment for its first round DOE claim sometime in the latter half of the dormancy period or early in active decommissioning.

Holtec Palisades has demonstrated multiple avenues for adjusting funding to address unexpected cost increases over the course of the dormancy period without the need for a license condition. Mr. Capik's argument that those avenues are unreliable without a license condition are nothing more than speculation and conjecture. He has pointed to no evidence to suggest that Holtec would refuse to use recoveries from Palisades's spent nuclear fuel litigation or otherwise provide supplemental funding for radiological decommissioning and license termination activities at Palisades if the funding in the NDT proved to be inadequate during the decommissioning process. A license condition is unnecessary, and the Commission should reject the Attorney General's Contention MI-1(d).

III. CONCLUSION

For the reasons stated in the Application, Applicants' Initial and Rebuttal Statements of Position, and above, the Commission should reject the Attorney General's contentions and grant the Application without further condition or limitation.

Respectfully submitted,

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

In the Matter of	)	Docket Nos.	50-255-LT-2
ENTERGY NUCLEAR OPERATIONS,	)		50-155-LT-2
INC., ENTERGY NUCLEAR	)		72-007-LT
PALISADES, LLC, HOLTEC	)		72-043-LT-2
INTERNATIONAL, and HOLTEC	)		
DECOMMISSIONING INTERNATIONAL,	)		
LLC	)		

CERTIFICATE OF SERVICE

I hereby certify that the foregoing Applicants' Concluding Statement of Position has been served through the E-Filing system on the participants in the above-captioned proceeding, this 27th day of January, 2023.

Respectfully submitted,

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