

**UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION**

**BEFORE THE SECRETARY**

In the Matter of

ENTERGY NUCLEAR OPERATIONS, INC.;  
ENTERGY NUCLEAR Palisades; HOLTEC  
INTERNATIONAL; and HOLTEC  
DECOMMISSIONING INTERNATIONAL,  
LLC; APPLICATION FOR ORDER  
CONSENTING TO TRANSFERS OF  
CONTROL OF LICENSES AND APPROVING  
CONFORMING LICENSE AMENDMENTS

Docket Nos.:  
50-155  
50-255  
72-007  
72-043

(Palisades Nuclear Plant and Big Rock Point)

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**REPLY IN SUPPORT OF THE MICHIGAN ATTORNEY GENERAL'S  
PETITION FOR LEAVE  
TO INTERVENE AND FOR A HEARING**

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## INTRODUCTION

As noted in the Michigan Attorney General’s Petition to Intervene, the Nuclear Regulatory Commission (NRC) is considering whether to grant an application by Entergy Nuclear Operations, Inc. (ENOI); Entergy Nuclear Palisades, LLC (ENP) (together “Entergy”); Holtec International (Holtec); and Holtec Decommissioning International, LLC (HDI), (collectively “Applicants”) requesting approval to transfer the operating licenses for the Palisades Nuclear Plant, Big Rock Point Plant, and associated independent spent fuel storage installation (ISFSI) from Entergy to Holtec and HDI.<sup>1</sup> The license transfer application notes that Entergy plans to transfer all of the assets and liabilities of ENP to a new entity that will become Holtec Palisades, LLC (Holtec Palisades).<sup>2</sup> The LTA also notes that Nuclear Asset Management Company, LLC (NAMCo), a wholly-owned subsidiary of Holtec, will acquire the equity interests in either the new Holtec Palisades or the parent company owner of Holtec Palisades; either way, emerging as the direct parent company of Holtec Palisades.<sup>3</sup> Holtec plans to engage another Holtec subsidiary, Comprehensive Decommissioning International, LLC (CDI) to decommission the single unit at Palisades, restore the site, and manage on-

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<sup>1</sup> License Transfer Application (LTA) at 1–2 (Dec. 23, 2020).

<sup>2</sup> LTA at 2 (Dec. 23, 2020).

<sup>3</sup> LTA at 2 (Dec. 23, 2020).

site spent nuclear fuel.<sup>4</sup> Holtec<sup>5</sup> represents that it will release the site for unrestricted use “by approximately 2041.”<sup>6</sup>

In her petition, supported by expert declarations, the Attorney General challenges HDI’s insufficient showing of financial qualifications and decommissioning financial assurance by showing HDI’s unreasonable assumptions and errors regarding the license termination, site restoration, and spent fuel management liabilities attached to Palisades and Big Rock Point. In addition, the Attorney General argues that Holtec’s LTA and PSDAR assumption that it will receive a regulatory exemption authorizing the use of decommissioning trust monies for site restoration and spent fuel management demonstrates that it lacks another source of funding for site restoration and spent fuel management in contravention to applicable NRC regulations.

As the Commission has long recognized, financial qualification and decommissioning funding issues “lie at the core of the NRC’s license transfer inquiry.”<sup>7</sup> The Attorney General’s contentions directly address Holtec’s lack of financial qualification and adequate funding assurance for license termination and spent fuel management. The Attorney General’s contentions are well within the scope of these proceedings, identify material disputes of fact and law, and are supported with reference to documentary evidence, NRC regulations, and a detailed

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<sup>4</sup> LTA at 2-3 (Dec. 23, 2020).

<sup>5</sup> Throughout this petition, use of the term “Holtec” refers to any or all of Holtec Intl, CDI, HDI, or Holtec Palisades.

<sup>6</sup> LTA at 3 (Dec. 23, 2020).

<sup>7</sup> North Atlantic Energy Serv. Corp. (Seabrook Station, Unit 1) (Seabrook), 49 N.R.C. 201, 219 (1999).

declaration from a knowledgeable expert. The Attorney General need not prove its case at the contention filing stage; it need only advance reasonable, fact-based claims about Holtec’s inability to meet the NRC’s financial qualification, decommissioning funding assurance, and spent fuel management requirements.<sup>8</sup> The Attorney General’s contentions meet that introductory threshold, and the issues raised are open factual questions that need to be resolved at an adjudicatory hearing.

### **Legal and Regulatory Framework**

To intervene in an NRC licensing proceeding, a petitioner must show standing and proffer at least one admissible contention.<sup>9</sup> NRC regulations in 10 C.F.R. § 2.309(f)(1) specify the requirements for an admissible contention such as explaining the basis for contention and supporting facts or expert opinion on which the petitioner intends to rely in litigating the contention. Also, NRC rules of practice and procedure provide that the “applicant or the proponent of an order has the burden of proof.”<sup>10</sup> A petitioner need only present a disputed material question of fact for hearing and can challenge the level of detail provided by the Applicant in demonstrating this disputed material question of fact.<sup>11</sup> The Commission has explained that a genuine dispute on a material issue of law or fact is “a dispute that actually, specifically, and directly challenges and controverts the application, with

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<sup>8</sup> See *Seabrook*, 49 N.R.C. at 219–20.

<sup>9</sup> 10 C.F.R. §§ 2.309(a), (d), (f) (Applicants concede the Attorney General’s standing).

<sup>10</sup> 10 C.F.R. § 2.325.

<sup>11</sup> *Entergy Nuclear Operations, Inc. (Indian Point Nuclear Generating Station, Unit Nos. I, 2, and 3 and ISFSI)*, CLI 21-01 (2021) (Commissioner Baran dissent, p 5).

regard to a legal or factual issue, the resolution of which ‘would make a difference in the outcome of the licensing proceeding.’”<sup>12</sup> To show a genuine dispute on a material issue of law, a petitioner need only provide either “references to the specific portions of the application . . . that the petitioner disputes and the supporting reasons for each dispute or” an identification and explanation of the application’s “fail[ure] to contain information on a relevant matter as required by law.”<sup>13</sup> The Commission has held that a petitioner seeking a hearing need not “prove its case” at the contention filing state, and the proof adduced “need not be in formal evidentiary form, nor be as strong as that necessary to withstand a summary disposition motion.”<sup>14</sup> Moreover, a petitioner’s well-supported allegations must be viewed in a light most favorable to the petitioner.”<sup>15</sup>

As NRC Chair Christopher T. Hanson, then Commissioner Christopher T. Hanson, explained in his dissent on the license transfer case dealing with Indian Point, “[e]ven though cost estimates are uncertain by nature, we are obligated to acknowledge claims from interested persons that call these estimates into question” and “[o]ur 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.”<sup>16</sup> In his dissent, Commissioner Jeff

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<sup>12</sup> In the Matter of Duke Energy Corp. (Catawba Nuclear Station, Units 1 & 2), 59 N.R.C. 129, 148 (Mar. 5, 2004) (quoting 54 Fed. Reg. at 33,172).

<sup>13</sup> *Id.* (citing Duke Energy Corp. (McGuire Nuclear Station, Units 1 & 2; Catawba Nuclear Station, Units 1& 2). LBP-02-04, 55 NRC 49, 67–68 (2002) (emphasis omitted).

<sup>14</sup> Gulf States Utils. Co. (River Bend Station, Unit 1), 40 N.R.C. 43 (1994), p 51.

<sup>15</sup> *Id.* at 53.

<sup>16</sup> Entergy Nuclear Operations, Inc. (Indian Point Nuclear Generating Station, Unit Nos. I, 2, and 3 and ISFSI), CLI 21-01 (2021) (Commissioner Hanson dissent, p 3).

Baran echoed a similar view by noting that New York had raised a genuine dispute whether HDI would complete segmentation activities for each unit within one year, as the decommissioning cost assumed and that “[a]lthough New York has not conclusively demonstrated that it will take longer than one year to complete this work, it is not required to do so at this state of the proceeding.”<sup>17</sup> He concluded that “[t]his open factual question will need to be resolved at a hearing.”<sup>18</sup>

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<sup>17</sup> Id. (Commissioner Baran dissent, pp 9-10).

<sup>18</sup> Id. (Commissioner Baran dissent, pp 9-10).

## ARGUMENT

### MI-1

**The Attorney General’s first contention establishes a genuine issue of fact and dispute of law as to whether Holtec fails to show financial qualification to qualify for a license transfer, and fails to provide adequate decommissioning financial assurance and/or adequate funding for spent nuclear fuel management, in violation of 10 C.F.R. §§ 50.33(f) and (k)(1), 50.40(b), 50.54(bb), 50.75(b)(1) and (e)(1)(i), 50.80(b)(1)(i), 50.82(a)(8)(vii), and 72.30(b) because Holtec’s PSDAR and decommissioning cost estimates underestimate license termination and spent fuel management costs.**

Applicants concede that under section 182(a) of the Atomic Energy Act and corresponding NRC regulations, proposed licensees must demonstrate that they are financially qualified to hold an NRC license.<sup>19</sup> The Commission has long recognized that “inadequate or untimely consideration of decommissioning, specifically in the areas of planning and financial assurance, could result in significant adverse health, safety[,] and environmental impacts.”<sup>20</sup> Since then, in view of its statutory duty to adequately protect public health and safety and in keeping with its risk-informed regulatory approach,<sup>21</sup> the Commission has developed a set of financial qualification and decommissioning financial assurance requirements<sup>22</sup> designed to

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<sup>19</sup> See 42 U.S.C. § 2232(a); 10 C.F.R. §§ 50.33(f) and (k)(1), 50.40(b), 50.54(bb), 50.75(b)(1) and (e)(1)(i), 50.80(b)(1)(i), 50.82(a)(8)(vii), and 72.30(b). Answer at 20, 47.

<sup>20</sup> General Requirements for Decommissioning Nuclear Reactors, 53 Fed. Reg. 24018, 24019 (June 27, 1988).

<sup>21</sup> See NRC, Consolidated Decommissioning Guidance: Financial Assurance, Recordkeeping, and Timeliness, NUREG-1757 at 31 (Feb. 2012); see also Briefing on Power Reactor Decommissioning Rulemaking at 9 (March 15, 2016) (ML16078A034) (noting that /NRC’s “present decommissioning rules are performance-based and risk-informed).

<sup>22</sup> See, e.g., 10 C.F.R. §§ 50.33(f), 50.75, 72.30.

ensure that holders of NRC licenses possess the financial ability to manage risk associated with their decommissioning and related obligations.

Here, if the license transfer application is granted and the transaction closes, the closely held, special purpose limited liability entities HDI and Holtec Palisades—entities with no outside source of revenue—will own the shuttered unit at Palisades and the substantial license termination, site restoration, and spent fuel management liabilities such ownership entails. HDI and Holtec Palisades will also gain access to the ratepayer-funded nuclear decommissioning trust for each unit.

Because the Applicants’ decommissioning financial assurance representations are predicated on what HDI claims is a site-specific estimate of the costs to decommission Palisades, restore the site, and manage spent fuel in the manner set forth in its PSDAR, the accuracy of both the PSDAR and the accompanying cost estimate are directly relevant to the core question of whether the Holtec LLCs are financially qualified to decommission Palisades under applicable NRC rules.

In a recent order, the Commission noted that in the event of a decommissioning funding shortfall, NRC rules “require[ ] additional financial assurance to cover the estimated cost to complete the decommissioning.”<sup>23</sup> In fact in their Answer, Applicants concede this point.<sup>24</sup> Yet, Applicants simply state that the NRC rules will require it to provide additional financial assurances if the annual

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<sup>23</sup> Exelon Generation Co. (Oyster Creek Nuclear Generating Station), CLI-19-06, 2019 WL 2632851, at \*6 (2019); *see* 10 C.F.R. § 50.82(a)(8)(vi).

<sup>24</sup> Answer, pp 20, 47.



status reports show the decommissioning trust balances will not cover the estimated costs of decommissioning.<sup>25</sup>

The Commission's observation and the Applicants' statements only reinforce the need to ensure that proposed licensees are financially qualified *before* authorizing a license transfer or granting an exemption allowing trust reimbursement for non-decommissioning expenses. Proposed licensees' financial qualifications cannot be predicated solely on access to existing decommissioning trusts, as the Applicants propose here.<sup>26</sup> Instead, Holtec must be required to demonstrate to the Commission what the license transfer application currently fails to demonstrate: that Holtec and its various associated LLCs are healthy corporate entities with access to the financial resources necessary to procure additional financial assurance, if needed, *now*—not at some indeterminate point in the future when exemptions have been granted and the trusts run short of funds.

The Applicants' main response to the Attorney General's petition is simply that it need only present plausible assumptions to support its financial qualifications and assurances and seems to suggest that the Attorney General must prove her case in the petition.<sup>27</sup> As noted earlier, the Commission has held that a petitioner seeking a hearing need not "prove its case" at the contention filing state, and the proof adduced "need not be in formal evidentiary form, nor be as strong as

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<sup>25</sup> Answer, pp 20.

<sup>26</sup> In its Answer, Applicants argue that Holtec is relying on more than just the existing decommissioning trust by noting that Holtec can seek reimbursement of spent fuel management expenses by DOE. Yet, nowhere in its Answer does Holtec commit to using these funds for that purpose. Answer, p 19.

<sup>27</sup> Answer, pp 15-17.

that necessary to withstand a summary disposition motion.”<sup>28</sup> Moreover, a petitioner’s well-supported allegations must be viewed in a light most favorable to the petitioner.”<sup>29</sup> Viewed in a light most favorable, the Attorney General’s contentions clearly establish a genuine dispute on material facts and law, thus requiring a hearing to resolve them.

**A. Estimated decommissioning costs that are substantially smaller than reasonable estimates accepted by Michigan in rate filings raise a genuine issue of material fact.**

The Attorney General’s first point in this contention is that Holtec’s decommissioning costs are substantially smaller than prior estimates provided to the Michigan Public Service Commission.<sup>30</sup> The Holtec DCE represents a site-specific analysis performed by Holtec for Palisades. This DCE projects expenses of \$443,215,000 for license termination activities per 10 C.F.R. § 50.75, \$166,122,000 for spent fuel management activities, and \$34,679,000 for site restoration activities, for a total cost of \$644,015,000 (all 2020 dollars).<sup>31</sup> By comparison, the previous site-specific DCE performed for Palisades by TLG Services, Inc. for Nuclear Management Company, LLC (NMC) and submitted to the NRC on April 21, 2006, projected total expenses (in 2020 dollars) of \$1,350,740,000, comprised of \$821,584,000 for license termination, \$419,020,000 for spent fuel management, and

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<sup>28</sup> Gulf States Utils. Co. (River Bend Station, Unit 1), 40 N.R.C. 43 (1994), p 51.

<sup>29</sup> Id. at 53.

<sup>30</sup> Petition at 12-15.

<sup>31</sup> Holtec Decommissioning International letter to U.S. NRC dated December 23, 2020, Subject “Post Shutdown Decommissioning Activities Report including Site-Specific Decommissioning Cost Estimate for Palisades Nuclear Plant” (Holtec PSDAR and DCE), DCE p 8.

\$110,135,000 for site restoration.<sup>32</sup> No explanation has been provided by Holtec to support the 52% reduction in estimated costs, nor is sufficient detail included in the Holtec DCE for an independent analysis of any factors that could support this 52% reduction in estimated costs.<sup>33</sup>

In addition, one of the key costs identified by NMC in its NRC filing on fuel management costs was a \$6 million annual cost (2003 dollars) for spent fuel management of the ISFSI at Palisades.<sup>34</sup> This annual cost escalated to 2020 dollars is \$8.44 million and was estimated by TLG based on actual costs at decommissioning facilities, estimated costs for facilities similar to Palisades, and engineering judgment.<sup>35</sup> This \$8.44 million per year is significantly greater than

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<sup>32</sup> In the matter of the application of Consumers Energy Company for adjustment of its surcharges for nuclear power plant decommissioning for the Palisades Nuclear Plant, Case No. U-14150; Consumers Energy Company 2004 Report on the Adequacy of the Existing Provision for Nuclear Decommissioning, Palisades Nuclear Plant, March 2004, Appendix B, TLG's Site-Specific Decommissioning Cost Study Executive Summary And Table 3, page xiii (MPSC Case No. U-14150, Official Exhibit A2, <https://mi-psc.force.com/sfc/servlet.shepherd/version/download/068t0000000w61yAAA>, p 52.) TLG provided costs in 2003 dollars. These 2003-dollar costs were \$584.1 million for license termination, \$297.9 million for spent fuel management, and \$78.3 million for site restoration. For comparison, these costs have been escalated to 2020 dollars using the Consumer Price Index for All Urban Consumers, which averaged 2.027% from 2003 to 2020. This same approach, escalation using the Consumer Price Index for All Urban Consumers, has been used for all year-dollar adjustments in this declaration.

<sup>33</sup> The Holtec DCE includes a 10-year dormancy period. The TLG estimate was for a SAFSTOR approach using a 12.5-year storage period. In the matter of the application of Consumers Energy Company for adjustment of its surcharges for nuclear power plant decommissioning for the Palisades Nuclear Plant, Case No. U-14150, Consumers Energy Company 2004 Report on the Adequacy of the Existing Provision for Nuclear Decommissioning, Palisades Nuclear Plant, March 2004, Appendix B, TLG's Site-Specific Decommissioning Cost Study Executive Summary And Table 3, page xii (MPSC Case No. U-14150, Official Exhibit A2, p 51).

<sup>34</sup> NMC letter to U.S. NRC dated April 21, 2006, "Irradiated Fuel Management Plan and Preliminary Decommissioning Cost Estimates for Palisades Nuclear Plant" (ML061140185), Enclosure 1 p 3 of 3.

<sup>35</sup> Id.

the \$1.7 million per year (2020 dollars) estimated by Holtec for comparable years (2027 through 2029).<sup>36</sup> No explanation has been provided for this 80% reduction in estimated annual costs for spent fuel management.

Applicants respond that they are not required to compare their decommissioning costs to old decommissioning costs and that assumptions change over time.<sup>37</sup> Applicants argue that there are differences between the two studies and that the Attorney General does not provide any reason to believe that the 2004 NMC/Consumer's estimate is any more accurate or better than HDI's more recent estimate.<sup>38</sup> Applicants' arguments are more appropriate for a hearing since they require a deeper dive into the underlying facts to the decommissioning cost estimates provided in its application. As noted earlier, Chair Hanson explained that "[e]ven though cost estimates are uncertain by nature, we are obligated to acknowledge claims from interested persons that call these estimates into question" and "[o]ur 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."<sup>39</sup> Similarly, the Attorney General's contention raises a genuine dispute on a material fact within the scope of the proceeding.

**B. Unreasonable spent fuel management assumptions which could grossly understate actual management costs raise a genuine issue of material fact.**

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<sup>36</sup> Holtec DCE, p 46.

<sup>37</sup> Answer at 21.

<sup>38</sup> Answer at 22-23.

<sup>39</sup> Indian Point, CLI-21-01, 92 N.R.C. \_\_ (Commissioner Hanson dissent, p 3).

As explained in the Attorney General's Petition<sup>40</sup>, Holtec assumes that all spent fuel will remain on site until it is transferred to the Department of Energy (DOE), with Holtec incurring annual operating and maintenance costs of approximately \$1.7 million per year.<sup>41</sup> Holtec further assumes that this transfer of spent fuel to DOE will take place between 2030 and 2040.<sup>42</sup> Transfer of spent fuel off the Palisades site to a different, non-DOE interim storage facility does not transfer title from Holtec and therefore does not eliminate Holtec's obligation to safely manage this fuel nor incur its continuing costs. The only way to eliminate continuing activities and costs is for DOE to take title to the fuel. This assumed acceptance schedule is not reasonable given DOE's current progress in licensing a repository.<sup>43</sup>

Even assuming a 2030 DOE start date, the last Palisades spent fuel would not be accepted by DOE until about 2064. By comparison, in 2003 in support of its ratemaking submittals, Consumers Energy Company (the then-current Palisades owner) assumed a 2013 start and a 2048 final acceptance, for a nearly-identical

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<sup>40</sup> Petition at 15-18.

<sup>41</sup> Holtec DCE, pp 12 and 46. Spent fuel management costs increase after 2029 for transferring spent fuel to DOE.

<sup>42</sup> Holtec DCE, pp 21–22. Holtec references a 2013 DOE plan to implement a pilot program with a goal of accepting spent fuel by 2025. Holtec notes that virtually no progress has been made in the eight years since that plan was issued, yet assumes only a five-year delay in implementation of those plans. DOE is not currently working on a pilot interim storage facility nor is there any expectation of such work in the near future.

<sup>43</sup> It is not reasonable to assume DOE operates an interim storage facility in the near term given the linkage of such a facility to construction of a repository in the Nuclear Waste Policy Act. DOE/RW-0596, Report to Congress on the Demonstration of the Interim Storage of Spent Nuclear Fuel from Decommissioned Nuclear Power Reactor Sites, December 2008, p 7.

acceptance period of 35 years.<sup>44</sup> While the Standard Contract does have provisions that could potentially be used to accelerate acceptance dates, there is no basis to assume that such provisions can be utilized, nor that these provisions would be available without a significant cost.<sup>45</sup> No discussion or accounting for this substantial uncertainty appears in the Holtec DCE.

Applicants respond by citing to the Commission's recent decision in *Indian Point* for the proposition that it is plausible to assume that a storage facility will be available to accept spent fuel at an interim storage facility by 2030.<sup>46</sup> The Commission in *Indian Point*, however, never reached the issue regarding cost overruns because the Commission concluded that Holtec's start and end dates for spent-fuel removal are plausible.<sup>47</sup>

In her Petition, the Attorney General makes the additional argument that even assuming some of the dates Holtec relies upon, there is no accounting of cost overruns that go the heart of the decommissioning numbers presented by Holtec.

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<sup>44</sup> In the matter of the application of Consumers Energy Company for adjustment of its surcharges for nuclear power plant decommissioning for the Palisades Nuclear Plant, Case No. U-14150, Consumers Energy Company 2004 Report on the Adequacy of the Existing Provision for Nuclear Decommissioning, Palisades Nuclear Plant, March 2004, p 18 (MPSC Case No. U-14150, Official Exhibit A2, p 29).

<sup>45</sup> The two provisions are granting priority for shutdown reactors and exchanges of approved DOE delivery commitment schedules. The industry has previously rejected the priority provision and there is no evidence that the second provision is feasible given the continuing need for on-site storage. DOE/RW-0596, Report to Congress on the Demonstration of the Interim Storage of Spent Nuclear Fuel from Decommissioned Nuclear Power Reactor Sites, December 2008, p 5 ("The Department has been asked, on numerous occasions, to exercise its discretion ... to allow for the priority acceptance of SNF from decommissioned reactors. In all instances, the Department has declined to grant this priority, noting that doing so would ... adversely affect the timely removal of SNF from operating reactor sites.").

<sup>46</sup> Answer at 24-25.

<sup>47</sup> *Indian Point*, CLI-21-01, 92 N.R.C. \_\_ at 38.

The Standard Contract with DOE sets forth the delivery schedules and Holtec's assumptions do not match those schedules. Applicants' response is that the impact on overall cost estimates would be minimal and that Holtec could recover those costs from the DOE.<sup>48</sup> Because there is a genuine issue of material fact as to whether those cost estimate would be minimal and there is no commitment by Holtec to use any costs recovered from DOE, the Commission should grant a hearing to resolve the issue.

**C. Calculated decommissioning costs that are substantially smaller than the NRC generic formula and actual performance at other sites raise a genuine issue of material fact.**

In her Petition, the Attorney General explained that the NRC regulations require that during operation a licensee demonstrate adequate decommissioning funding assurance to a generic formula contained in 10 C.F.R. § 50.75.<sup>49</sup> For Palisades, Holtec calculates this value as \$443 million for an immediate decommissioning approach (typically called DECON).<sup>50</sup> The purpose of this generic formula is to ensure that the licensee is providing assurance for the "bulk" of funds needed to complete decommissioning.<sup>51</sup> The generic formula does not, nor is it designed to, provide a conservative bound to ensure sufficient funding is obtained. Nonetheless, even with this "bulk" standard, Holtec's estimated site-specific

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<sup>48</sup> Answer at 26-27.

<sup>49</sup> Petition at 18-20.

<sup>50</sup> LTA, p 18, fn 1.

<sup>51</sup> GAO-12-258, United States Government Accountability Office, Report to the Honorable Edward J. Markey, House of Representatives, NRC's Oversight of Nuclear Power Reactors' Decommissioning Funds Could Be Further Strengthened, Summary.

decommissioning cost estimate for license termination activities is no larger than \$402.5 million and at least nine percent smaller than the “bulk” standard.<sup>52</sup>

Historically the “bulk” standard has understated actual license termination costs by 16 to 42%.<sup>53</sup>

Applicants summarize their response by stating that “[t]he mere existence of differences between the current decommissioning cost estimate and dated experience at limited other sites does not demonstrate any genuine dispute with the Application.”<sup>54</sup> The Attorney General’s contention, however, is that Holtec’s decommissioning cost estimate is less than the NRC’s generic formula and that the generic formula has historically understated actual license termination costs by 16 to 42%. Thus, the contention is not just a comparison to other historical decommissioning experience. Rather, the Attorney General raises a genuine

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<sup>52</sup> Holtec’s calculated license termination cost is \$443.215 million, including \$40.668 million in dormancy costs from 2026 through 2034). Holtec DCE, p 46. Arguably most of the 2035 costs should also be included in dormancy. In addition, ISFSI demolition costs in 2041 are funding per 10 CFR 72.30 and should be excluded. Thus, Holtec’s license termination costs could be as small as \$387.3 million.

<sup>53</sup> Compare Yankee Rowe’s \$623 million actual cost to the generic rule amount in 2010 of \$363 million, which is a 42 percent understatement. Similarly, Haddam Neck’s \$674 million actual compares to a \$418 million generic rule amount for a 38% understatement, and Maine Yankee’s \$540 million actual compares to a \$453 million generic rule amount for a 16% understatement (all costs in 2010 dollars and rule amounts calculated in 2010). Attempts to perform a similar calculation for other plants, including Rancho Seco and San Onofre Unit 1 are complicated by the decommissioning method used for both facilities (which involved a storage period). An independent analysis of 12 reactors by GAO found that the NRC formula captured 57 to 91 percent of estimated site-specific costs for nine reactors. GAO also noted that the site-specific estimates were as much as \$362 million more than the NRC generic formula would have predicted at that time. GAO-12-258, United States Government Accountability Office, Report to the Honorable Edward J. Markey, House of Representatives, NRC’s Oversight of Nuclear Power Reactors’ Decommissioning Funds Could Be Further Strengthened, pp 13–14.

<sup>54</sup> Answer at 27.



dispute on a material issue of fact that Holtec's decommissioning costs estimates are substantially smaller than the NERC generic formula, which is a conservative tool used to help ensure that the licensee is providing assurance for the "bulk" of funds needed to complete decommissioning.

Applicants only response to the Attorney General's discussion of the generic formula is a footnote reference to the LTA, which simply says that Holtec's numbers differ because it is using more reliable and more precise information. This is hardly a sufficient explanation. Applicants conclude by stating that the "Michigan AG presents no reason to believe that a general estimate or decades-old experience is objectively better than HDI's estimate, and generally asserting that the cost estimate is unreasonable in comparison to other estimates is not enough to support an admissible contention without further support."<sup>55</sup> Applicants' conclusion is essentially that it is better to dismiss actual experience and costs in favor of an estimate by an entity that has not performed any domestic decommissioning projects.

As noted earlier, Holtec bears the burden of proof in this proceeding.<sup>56</sup> The Attorney General is not required to prove its case at the contention filing state.<sup>57</sup> Here, the Attorney General raises a genuine dispute of material fact as to Holtec's decommissioning funding assurance based on its substantially smaller estimate compared to the generic formula and its lack of discussion regarding the cause of

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<sup>55</sup> Applicants' Application, p 29.

<sup>56</sup> 10 C.F.R. § 2.325.

<sup>57</sup> River Bend, 40 N.R.C. at 51.

the discrepancy. As the Commission has held, “[w]hat is required is a minimal showing that material facts are in dispute, thereby demonstrating that an inquiry in depth is appropriate.”<sup>58</sup> The *Seabrook* decision stands for the further proposition that a contention addressing financial concerns in a license transfer proceeding may rely on reasonable predictions with regard to future events, so long as those predictions “rest . . . on factual assertions.”<sup>59</sup>

**D. Holtec’s use of an inadequate and unprecedented contingency raises a genuine issue of material fact.**

In her Petition, the Attorney General explained that contingency funding is included in decommissioning cost estimates to address inherent uncertainty.<sup>60</sup> Holtec has included a 25 percent contingency on ISFSI decommissioning costs consistent with the NUREG 1757 evaluation criteria key assumption that cost estimates apply a contingency factor of at least 25 percent to the sum of all estimated costs.<sup>61</sup> For the costs beyond ISFSI decommissioning, Holtec instead applies a 12 percent contingency.<sup>62</sup> Holtec states that this level of contingency was determined to reasonably bound the universe of risks that should be considered.<sup>63</sup> No evidence was provided to support this contention, and this level of contingency is not consistent with industry norms.<sup>64</sup> By comparison, Holtec used a 15 percent

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<sup>58</sup> River Bend, 40 N.R.C. at 51.

<sup>59</sup> North Atlantic Energy Serv. Corp. (Seabrook Station, Unit 1), 49 N.R.C. 201, 219 (1999)

<sup>60</sup> Petition at 20-21.

<sup>61</sup> Holtec DCE, p 23.

<sup>62</sup> Holtec DCE, p 41.

<sup>63</sup> *Id.*

<sup>64</sup> *See, e.g.*, Crystal River Nuclear Generating Station Unit 3 Site Specific Decommissioning Cost Estimate (May 2018), Appendix C, Table C (last page) (ML18178A181) (18.2% contingency allowance); Fort Calhoun Station Site-Specific Decommissioning Cost Estimate

contingency allowance for its Oyster Creek estimate, a 17 percent contingency for its Pilgrim estimate, and 18 percent for its Indian Point estimate (the same reactor type as Palisades).

The Attorney General noted that increasing the Holtec contingency consistent with recent industry norms (using the 17.15 percent average value from Crystal River, Fort Calhoun, and Monticello) would add about \$29 million to the DCE, which would exceed the NDT funding available for decommissioning. The Attorney General further noted, in a footnote, that one outlier on contingencies is Three Mile Island Unit 1 which was 12.9 percent on a \$1,228 million estimate.<sup>65</sup>

Applicants' main response is that it is only 1 percent less than the outlier, with no explanation for why its 12 percent contingency isn't consistent with industry norms.<sup>66</sup> Applicants then argue that their justification for the 12 percent contingency is based on an evaluation of "estimate uncertainty" combined with "experience gained through decommissioning efforts at Oyster Creek and Pilgrim" even though it has not performed any domestic decommissioning projects.<sup>67</sup> Next, Applicants claim that the Attorney General raises conclusory allegations even though the Attorney General provided expert analysis on the industry norms and

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(attached to PSDAR) (Feb. 2017), Appendix C, Table C (last page) (ML17089A59) (16.33% contingency allowance); Decommissioning Cost Analysis for the Monticello Nuclear Generating Plant, Appendix D, Table D (last page) (Oct. 2014) (ML16005A105) (16.94% contingency allowance). One outlier is Three Mile Island Unit 1 which includes a 12.9% contingency but on a \$1,228 million estimate (approximately double that of Holtec's Palisades estimate).

<sup>65</sup> Capik Decl., ¶¶ 9, n 28.

<sup>66</sup> Answer at 29.

<sup>67</sup> Id. at 29-30.

noted that Holtec used 25% contingency on the ISFSI decommissioning costs.<sup>68</sup> And finally, Applicants argue, without support or any analysis, that the NRC can always in the future adjust funding assurance and that “in light of the estimated \$160 million in spent fuel management costs, the revenue stream from DOE recoveries would easily allow a \$29 million adjustment in funding assurance if it were necessary.”<sup>69</sup>

It is clear that the Attorney General has properly provided a supported analysis on the inadequate and unprecedented contingency that Holtec is relying upon in its application to demonstrate decommissioning financial assurance. Holtec has failed to carry its burden of proof to explain why its contingency is reasonable. At the very least, the Attorney General has presented well-supported allegations that should be further examined in a hearing. As noted by the *Seabrook* decision, the well-supported allegations in the Attorney General’s petition—viewed, as they must be, in a light most favorable to the Attorney General<sup>70</sup>—satisfy the Commission’s contention admissibility standards, and the Attorney General is entitled to an adjudicatory hearing “to substantiate [her] concerns.”<sup>71</sup>

**E. Holtec’s potentially understated radioactive waste volume and shipment approach outside the bounds of NRC evaluations raises a genuine issue of material fact.**

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<sup>68</sup> Id. at 30.

<sup>69</sup> Id.

<sup>70</sup> See *River Bend*, 40 N.R.C. at 53.

<sup>71</sup> *Seabrook*, 49 N.R.C. at 222.

In her Petition<sup>72</sup>, the Attorney General explained that Holtec's DCE assumes the total radioactive waste volume for Classes A, B, and C low-level radioactive waste will be 92 million pounds.<sup>73</sup> This waste quantity is significantly smaller than other actual decommissioning projects, including 246 million pounds of low-level radioactive waste at Maine Yankee and 265 million pounds of low-level radioactive waste at Haddam Neck.<sup>74</sup> Understating the low-level radioactive waste volume could lead to substantially increased costs over those included in the Holtec DCE and no detail has been provided by Holtec to evaluate the assumptions leading to this total waste volume or why the total waste volume would deviate so significantly from past decommissioning projects.

In addition, the Attorney General argued that Holtec's PSDAR states that radioactive waste will be transported from the Palisades site using truck and potentially barge or rail (with a transfer facility since the rail spur does not extend to the Palisades site).<sup>75</sup> The Entergy and Holtec License Transfer Application (LTA) does not address how the planned Palisades activities will conform to the generic environmental statement (GEIS) for decommissioning, nor does it identify any

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<sup>72</sup> Petition at 21-24.

<sup>73</sup> Holtec DCE, Table 3-6, p 36.

<sup>74</sup> Both Maine Yankee and Haddam Neck (also known as Connecticut Yankee) were pressurized water reactors, the same type of reactor as Palisades. Maine Yankee was approximately the same generating capacity as Palisades while Haddam Neck was smaller. EPRI Report 1013511, Connecticut Yankee Decommissioning Experience Report, Detailed Experiences 1996-2006, Table A-1. EPRI Report, Maine Yankee Decommissioning Experience Report, Detailed Experiences 1997-2004, Table E-1.

<sup>75</sup> Holtec PSDAR, p 11. Additional shipments will be required for non-radiological but hazardous waste and have not been addressed in these calculations. Based on historical projects, these shipments could be substantial.

evaluation performed to address activities beyond those evaluated in the GEIS. The Holtec PSDAR simply asserts without basis that activities are bounded by the GEIS and that these shipments will not result in changes to local traffic or damage to local infrastructure.<sup>76</sup>

Applicants response is that both Main Yankee and Haddam Neck were outliers that generated significantly greater than anticipated amounts of low-level waste and neither example is demonstrative of the low-level waste amount expected at Palisades.<sup>77</sup> As to the number of truck shipments of radioactive waste, Applicants argue that this claim is outside the scope of the proceeding and that a license transfer review does not itself involve any consideration of the potential environmental impacts of decommissioning activities.<sup>78</sup>

As noted above, Holtec did not provide this analysis of the low-level radioactive waste volumes in its application and the additional information provided in Applicants' Answer helps demonstrate that there is a genuine dispute on a material issue of fact that would substantially increase costs over those provided in the application. As noted by Commissioner Baran in his dissent in *Indian Point*, a petitioner need only present a disputed material question of fact for hearing and can challenge the level of detail provided by the Applicant in demonstrating this disputed material question of fact.<sup>79</sup> The Attorney General is

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<sup>76</sup> Holtec PSDAR, pp 18 and 35.

<sup>77</sup> Answer at 30-31.

<sup>78</sup> Id. at 33.

<sup>79</sup> Entergy Nuclear Operations, Inc. (Indian Point Nuclear Generating Station, Unit Nos. I, 2, and 3 and ISFSI), CLI 21-01 (2021) (Commissioner Baran dissent, p 5).

not required to prove her case, but rather raise genuine disputes on material facts that can be further analyzed at a hearing.

As to Applicants' claim that the Attorney General's argument on the truck shipments of radioactive waste is outside the scope of a license transfer proceeding, it is clear that the Atomic Energy Act requires the NRC to ensure financial assurance to protect public health, safety, and the environment.<sup>80</sup> The requirements for financial assurance were established because "inadequate or untimely consideration of decommissioning, specifically in the areas of planning and financial assurance, could result in significant adverse health, safety and environmental impacts."<sup>81</sup> These safety concerns are addressed, in part, by requiring licensees "to use methods which provide reasonable assurance that, at the time of termination of operations, adequate funds are available so that decommissioning can be carried out in a safe and timely manner and that lack of funds does not result in delays that may cause potential health and safety problems."<sup>82</sup> Accordingly, the Commission should find that the Attorney General's arguments on shipments of radioactive waste are within the scope of this proceeding and that a hearing is necessary to resolve these factual disputes that

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<sup>80</sup> See NRC, Consolidated Decommissioning Guidance: Financial Assurance, Recordkeeping, and Timeliness, NUREG-1757 at 31 (Feb. 2012); *see also* Briefing on Power Reactor Decommissioning Rulemaking at 9 (March 15, 2016) (ML16078A034) (noting that NRC's "present decommissioning rules are performance-based and risk-informed)

<sup>81</sup> General Requirements for Decommissioning Nuclear Facilities, 53 Fed. Reg. 24018, 24019 (June 27, 1988).

<sup>82</sup> *Id.*

significantly impact the decommissioning cost estimates provided in Holtec's application.

**F. Risks that have not been addressed in the DCE.**

In Contention MI-1.F, the Attorney General raises a series of deficiencies in the Applicants' cost estimate and provides specific detail on seven ways that Applicants could experience significant, unaccounted for cost overruns that could lead to a shortfall in funding and place public health, safety, and the environment at risk. The Attorney General supports her claims with detailed expert declarations, none of which is speculative or conclusory and all of which contain detail sufficient to allow for the "necessary, reflective assessment of the opinion[s]" expressed.<sup>83</sup>

In the Answer, Applicants state that the Michigan AG "fails to raise a genuine dispute with HDI's overall cost estimate."<sup>84</sup> Applicants state that the AG "generally fails to provide sufficient reason to believe that any of these claims is likely to have a specific material impact on the decommissioning cost estimate for Palisades, making the DCE implausible."<sup>85</sup> As noted above, a petitioner seeking a hearing need not "prove its case" at the contention filing state, and the proof adduced "need not be in formal evidentiary form, nor be as strong as that necessary to withstand a summary disposition motion."<sup>86</sup> The Applicants' generalizations in

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<sup>83</sup> South Carolina Elec. & Gas Co. (Virgil C. Summer Nuclear Station, Units 2 and 3), 71 N.R.C. 350, 360–361 (2010) (internal quotation marks and citations omitted). The Commission has repeatedly held that an expert declaration is speculative or conclusory when it baldly asserts that an application is "deficient," "inadequate," or "wrong." *Id.* at 360. The detailed declarations by the AG's expert suffer from no such defect.

<sup>84</sup> Answer at 34.

<sup>85</sup> *Id.*

<sup>86</sup> Gulf States Utils. Co. (River Bend Station, Unit 1), 40 N.R.C. 43 (1994), p 51.



this section of the Answer are unhelpful and attempt to hold the AG to a standard neither legally required nor reasonable to obtain a hearing.

First, the Applicants take issue with the AG's concern over schedule delays.<sup>87</sup> They claim that the AG does not raise a genuine dispute because "the contingency in the DCE considers risk events that may affect schedule estimates."<sup>88</sup> They also claim that the AG "does not identify any assumption in the decommissioning schedule in the PSDAR or DCE that is implausible."<sup>89</sup>

Based on Holtec's track record and the recent experience at Pilgrim Nuclear Power Station (PNPS) the Applicants' claims that the AG's concerns lack solid basis are incorrect. The experience at PNPS, where Holtec identified a schedule increase of about 50 percent less than 3 months after receiving NRC approval, raises significant concerns regarding Holtec's process, which apply equally to Palisades.<sup>90</sup> At no point in the Answer do Applicants address why such a tremendous increase occurred within such a short timeframe, or why that should not be of concern to other parties.

The Applicants' claim that the fact that the DCE contingency section includes some consideration of "common types of delays" means that the AG's concerns do not raise a genuine dispute is incorrect. The Applicants' generic contingency section does not adequately address the verifiable shortcomings of PNPS or the clear concern that inadequate detail is provided to assure that such occurrence will not

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<sup>87</sup> Answer at 34.

<sup>88</sup> Id.

<sup>89</sup> Id.

<sup>90</sup> Petition at 25.

repeat at Palisades.<sup>91</sup> The Applicant's further claim that the Michigan AG does not identify implausible assumptions in the decommissioning schedule is unsupported by any citation or requirement that such a showing be made to obtain a hearing.

Finally, Applicants repeatedly rely upon an in-house report<sup>92</sup> to argue against specific cost-overrun concerns of \$100 million put forth by the AG's expert, pertaining to the immediate schedule extensions at PNPS.<sup>93</sup> To the AG's knowledge, there is no publicly available data that supports that the Pilgrim project is exceeding expectations in performance. The document Applicants rely on is not a part of or appended to the application or the PSDAR; the Attorney General welcomes the opportunity to test its thoroughness at a hearing.

Second, Applicants argue that the AG fails to raise a genuine dispute with the Application on the issue of increased expense for site restoration due to state requirements or unanticipated site conditions.<sup>94</sup> In support of their contention, Applicants point to claims put forth by the State of New York in a separate case, *Indian Point*.<sup>95</sup> This is inapplicable and fails to address the material facts put forth in the AG's Petition.

Importantly, the AG points out that the Applicants have failed to consider state-law site restoration obligations and that such failure materially undermines the reasonableness of the cost estimate. Because Applicants are seeking an

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<sup>91</sup> Petition at 24-25.

<sup>92</sup> See footnotes 160 and 161.

<sup>93</sup> Answer at 35-36.

<sup>94</sup> Answer at 36.

<sup>95</sup> Id.

exemption to use decommissioning trust monies for site restoration purposes, questions relating to the accuracy of HDI's site restoration cost estimate are well within the scope of this proceeding. The Applicants failed to address the AG's concerns that 1) the limited information in the LTA, PSDAR, and DCE does not identify the assumed requirements for site restoration or any provision for contingency or allowances to account for any state requirements being beyond those assumed and 2) that the site-specific restoration estimate from the previous Palisades owner exceeds Holtec's estimate by 69%.<sup>96</sup> These are genuine issues of material fact that are best addressed through the hearing process.

Third, Applicants take issue with the AG's contentions regarding unknown radiological or non-radiological contamination on the site.<sup>97</sup> Similar to the second point above, because Applicants are seeking an exemption to use decommissioning trust monies for site restoration purposes, questions relating to the accuracy of HDI's site restoration cost estimate are well within the scope of this proceeding and clear concerns related to those estimates are areas of genuine dispute. The Applicants must accurately account for site restoration costs to show adequate radiological decommissioning and spent fuel management funding assurance. However, as pointed out in the AG's Petition, the information available in the LTA and PSDAR is limited and fails to identify specific plans for performing site characterization activities to properly account for and quantify radiological and non-

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<sup>96</sup> Petition at 25-26.

<sup>97</sup> Answer at 37.

radiological contamination.<sup>98</sup> The Applicants' answer also makes vague assertions that the AG may be "impermissibly challenging NRC rules"<sup>99</sup> and lists numerous items that the AG's Petition does not include, without reference to why those should have been included and without addressing the material issues in the AG's Petition.<sup>100</sup>

Fourth, Applicants briefly note the AG's contention of the risk of a radiological incident at the site, objecting to the AG's contention on the grounds that the "AG provides no explanation why [certain liability insurance coverage] would be insufficient in the unlikely event of an incident during transfer of spent fuel to storage casks."<sup>101</sup> Applicants state that the AG "makes no attempt to quantify this risk or show that it is material."<sup>102</sup> Again, the Applicants' Answer merely addresses items not included in the AG's Petition, rather than responding to the material concerns in her Petition or addressing the fact that consideration of this risk is not included in the DCE. The materiality of the risk was demonstrated, and unaddressed by Applicants in their answer, through the example of the incident at the Southern California Edison San Onofre facility.<sup>103</sup> In that instance, which did not even include a radiological incident but rather only a 'close-call,' substantial monetary resources were still expended to evaluate the event, lending credence to the AG's material concerns.

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<sup>98</sup> Petition at 26-27.

<sup>99</sup> Answer at 38.

<sup>100</sup> Id. at 37-39.

<sup>101</sup> Answer at 39.

<sup>102</sup> Id.

<sup>103</sup> Petition at 28.

Fifth, Applicants state that the AG fails to raise a genuine material dispute with the Application regarding spent-fuel repackaging.<sup>104</sup> It is undisputed that, absent a change to the Standard Contract, Holtec will have to repackage spent nuclear fuel into non-canistered DOE casks prior to transportation to an off-site storage facility or repository.<sup>105</sup> However, as laid out in the AG's Petition, the decommissioning costs presented by Applicants in the LTA and DCE assume that DOE will accept the canisters in the casks at Palisades at the time of DOE performance in the as-packaged canisters for dry storage and will not require repackaging for transportation.<sup>106</sup> Plant operators, including Entergy, have successfully recovered millions of dollars in contract damages from DOE on the theory that they will be forced to remove spent fuel from existing casks and canisters and reload it into new, DOE-approved transportation casks before DOE will take title to the fuel. The Applicants' convenient, contrary assumption defies reality for the simple reason that it is counter to existing law. As discussed and supported in her Petition, the AG contends that if Entergy is correct and DOE were to mandate fuel repackaging, this would cause Holtec to incur significant and unaccounted-for expenses on the order of hundreds of millions of dollars.<sup>107</sup>

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<sup>104</sup> Answer at 40-41.

<sup>105</sup> Petition at 28-29. As the Court of Appeals for the Federal Circuit recently noted (in a case in which an Entergy affiliate was a party), under the existing standard contract DOE "cannot accept" existing canistered fuel as is, and utilities will thus "incur costs to unload this fuel from the DOE storage casks and canisters and to reload it into transportation casks if and when the DOE performs." *System Fuels*, 818 F.3d at 1306.

<sup>106</sup> Petition at 28.

<sup>107</sup> *Id.* at 29.

Sixth, Applicants take issue with the AG’s contention that DOE may seek to recover all or some of the costs for the packaging of spent nuclear fuel into dry casks if DOE removes the spent fuel without prior repackaging.<sup>108</sup> Applicants argue that the AG does not “provide any reason to believe that DOE is likely to assert such a claim, or likely to prevail on it.”<sup>109</sup> The AG continues to contend that this issue ties in with the above and is related to the inherent uncertainty created by the process. In its Answer, Applicants did not address whether any risk allowance has been included in the estimated costs for potential DOE recovery, or how Applicants would address it should it arise. The AG maintains that a material issue remains, which, in light of the other multitude of issues, would be most properly addressed in a hearing.

Seventh and finally, Applicants take issue with the AG’s contention that serious issues exist due to the very real possibility that DOE fails to remove all spent nuclear fuel by 2040, as Holtec assumes will happen.<sup>110</sup> Applicants point to the Commission’s holding in *Pilgrim*, that site-specific decommissioning cost estimates are not required for potential but uncertain contingencies.<sup>111</sup> Given DOE’s track record on this issue and the fact that the ability to meet this date is essentially outside of DOE’s control, it is more than likely that Applicants will find themselves maintaining spent nuclear fuel on site past the end of 2040.<sup>112</sup> As

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<sup>108</sup> Answer at 41.

<sup>109</sup> *Id.*

<sup>110</sup> *Id.*

<sup>111</sup> *Id.*

<sup>112</sup> Petition at 30-31.

argued in her Petition, the AG continues to point out that it is unclear how Applicants would provide for the possible contingency of indefinite onsite storage, including all safety and environmental concerns regarding transferring fuel into new dry casks for decades after the Applicants' assumed date of 2040.

**G. Method and cost to transport storage-only fuel canisters off site.**

In Contention MI-1.G, the Attorney General raises specific issues regarding dry cask storage.<sup>113</sup> In their Answer, Applicants state that the AG's claim "fails to address pertinent information in the DCE and therefore demonstrates no genuine dispute with the Application."<sup>114</sup> Applicants go on to state that "the Michigan AG does not dispute that funds in [a specific DCE fuel transfer allocation] would cover the costs of repackaging the VSC-24 casks."<sup>115</sup>

Applicants misunderstand repackaging canisters. As noted above, the Federal Circuit has ruled that the as-loaded SNF canisters, which are stored in the casks at the site, cannot be accepted by DOE under the current contract.<sup>116</sup> The costs included in the estimate to move those as-loaded canisters to a DOE cask do not comply with the Standard Contract.<sup>117</sup> Accordingly, the risk is that the Standard Contract is not modified and those canisters will have to be unloaded and the fuel moved to a DOE cask. Relying on DOE recoveries, which presents a cashflow and timing issue, does not completely mitigate this risk and regardless,

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<sup>113</sup> Id. at 31-32.

<sup>114</sup> Answer at 42.

<sup>115</sup> Id.

<sup>116</sup> System Fuels, 818 F.3d at 1306.

<sup>117</sup> Petition at 31-32.

Applicants have thus far made no commitment to actually use DOE recoveries. Therefore, the AG does dispute that the Applicants have provided evidence that they have sufficient funds to cover the costs of repackaging VSC-24 casks, which raises a genuine dispute with the Application.

#### **H. Unrealistic NDT growth rate assumptions.**

In Contention MI-1.H, the Attorney General raises specific issues regarding unrealistic NDT growth rate assumptions.<sup>118</sup> In the Answer, Applicants argue that this issue is an improper challenge to NRC rules.<sup>119</sup> They then argue that, even if not an improper challenge, it “would not demonstrate a genuine dispute with the Application, as a two-percent annual rate of return would remain plausible.”<sup>120</sup>

Applicants state that “having lower than two-percent performance over the course of a few years during two notable stock market downturns does not mean that the funds will under-perform over the twenty-year period in which Palisades will be decommissioned, or that a two-percent real rate of return is not plausible.”<sup>121</sup>

The AG replies that the Applicants’ assertion that the time period at issue is the twenty-year period for decommissioning is not true. Should a market event happen early in the process there is no assurance that funds would recover, as most of the funds are removed during the early period. Applicants’ ensuing reference to

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<sup>118</sup> Petition at 31-32.

<sup>119</sup> Answer at 42-44.

<sup>120</sup> Id. at 43.

<sup>121</sup> Id.



returns from 2007 to 2020<sup>122</sup> is also misplaced, as the investment approach is very different for an operating reactor than for a decommissioning reactor.

The issue with the two percent growth rate is that, as demonstrated in the AG's Petition, it is not realistic.<sup>123</sup> The two percent rate did not occur during significant periods of operation of Palisades.<sup>124</sup> The two percent real growth assumption is even less reasonable following permanent shutdown when NDT funds are de-risked and invested more conservatively.<sup>125</sup> Assuming the qualified NDT tax rate remains 20 percent, a two percent annual inflation rate would require fund earnings to be five percent before taxes (after fees).<sup>126</sup> This level of return is not consistent with how decommissioning trust funds have been invested following permanent shutdown, making use of this assumption unreasonable given the circumstances.

Accordingly, the AG argues that Applicants' unreasonable and unrealistic NDT growth rate assumptions are likely to result in result in substantial unforeseen cost increases that easily exceed the funds available in the NDT.

**I. Inability to provide additional financial assurance beyond the underfunded NDT.**

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<sup>122</sup> Id. at 43-44.

<sup>123</sup> Petition at 32-34.

<sup>124</sup> Id. at 33.

<sup>125</sup> For example, even with the extended SAFSTOR project assumed by Consumers, the Palisades NDT was invested in 45% equity and 55% fixed income during operation and was to be invested in 30% equity and 70% fixed income after final shutdown. In the matter of the application of Consumers Energy Company for adjustment of its surcharges for nuclear power plant decommissioning for the Palisades Nuclear Plant, Case No. U-14150, Consumers Energy Company 2004 Report on the Adequacy of the Existing Provision for Nuclear Decommissioning, Palisades Nuclear Plant, March 2004, p 6 (MPSC Case No. U-14150, Official Exhibit A2, p 17).

<sup>126</sup> Petition at 33-34.

In Contention MI-1.I, the Attorney General raises specific issues regarding Applicants' failure to provide additional financial assurance beyond the underfunded NDT.<sup>127</sup> Holtec asserts that the NDT contains adequate funds for all required activities, but that should a shortfall occur, an alternate funding mechanism will be put in place. No support is provided for how such a mechanism would or could be funded. No analysis has been provided of any Holtec Palisades' assets beyond the NDT that could provide or support such funding.

In their Answer, Applicants again argue that the AG fails to raise a genuine dispute with the issue of Holtec Palisades' reliance solely on the NDT.<sup>128</sup> Applicants point to the statement in their Application that states "[r]eimbursement of spent fuel management expenses by DOE, which is not credited in the cash flow analysis..., would provide a substantial source of additional funds that could be used to provide such adjustment if necessary."<sup>129</sup> They argue that this contradicts the AG's position.<sup>130</sup> It does not. As stated in the AG's Petition, "[n]o analysis is provided to support this statement, nor any commitment made by Holtec to retain these reimbursements."<sup>131</sup> The same is still true, as Applicants have still failed to make any commitment to retain the reimbursements or actually use them as additional funds, if necessary, for decommissioning.

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<sup>127</sup> Id. at 34-35.

<sup>128</sup> Answer at 44.

<sup>129</sup> Id.

<sup>130</sup> Id. at 44-45.

<sup>131</sup> Petition at 35.

Timing is the big issue with regard to this item. The use of funds recovered from DOE in years past only makes sense if those funds are escrowed for such a purpose, yet there is clearly no commitment from the Applicants to escrow such funds here. The Application repeatedly wants to rely on those funds to demonstrate assurance but steadfastly refuses to commit to retain those funds for this purpose. Accordingly, Applicants' inability to provide additional financial assurance beyond the clearly underfunded NDT is a genuine issue of material fact in this case. Allowing Applicants to proceed without adequately addressing this issue places all of the risk squarely on Michigan's taxpayers and the citizens who live close to the Palisades site.

## MI-2

**The PSDAR impermissibly assumes Holtec will receive a regulatory exemption authorizing the use of decommissioning trust monies for site restoration and spent fuel management. Since Holtec has yet to receive such an exemption and has shown no other source of funding for site restoration and spent fuel management, it fails to satisfy NRC regulations at 10 C.F.R. §§ 50.54(bb) and 72.30(b).**

In her Petition, the Attorney General noted that Holtec plans to spend approximately \$35 million on site restoration activities and an additional \$166 million on spent fuel maintenance activities.<sup>132</sup> In all, Holtec plans to spend over \$200 million on non-decommissioning activities, or more than *one third* of the current balance of the Palisades decommissioning trust.

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<sup>132</sup> See LTA, Attachment E, pp 2–4.

The cost analysis upon which Holtec bases its financial qualification and decommissioning financial assurance representation assumes NRC will grant an exemption from 10 C.F.R. § 50.82(a)(8)(i)(A). Because this has not occurred, the HDI decommissioning cost estimate is speculative and unreliable and Holtec fails to carry its burden to show that it is financially qualified to hold the Palisades license under 10 C.F.R. § 50.33(f) and fails to carry its burden to show adequate funding for spent fuel management or ISFSI decommissioning as required under 10 C.F.R. §§ 50.54(bb) and 72.30.

Further, while Holtec claims the potential recovery of substantial additional funds in spent fuel management expenses from DOE represents a conservatism in their cost estimate,<sup>133</sup> it does not commit to use the recovered funds to defray decommissioning or site restoration expenses or replenish the trust funds.

In response, Holtec points to the Commission's order in *Indian Point* for the proposition that a general argument that an applicant cannot rely on an exemption to support its cost estimates does not raise a genuine dispute with the application.<sup>134</sup> As to the argument that Holtec return any DOE recoveries to the trust funds, Holtec argues that there are no NRC regulations that require DOE recoveries to be returned to a nuclear decommissioning trust.<sup>135</sup> Holtec finally reiterates that if there were a shortfall in any year, Holtec "would have the ability" to make additional contributions to the trust.<sup>136</sup>

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<sup>133</sup> See LTA at 18.

<sup>134</sup> Answer at 48.

<sup>135</sup> Id.

<sup>136</sup> Id. at 49.

The *Indian Point* decision, however, did not rule that an applicant can always rely on an exemption to support its cost estimates. In that decision, the NRC explained that “New York did not present a genuine dispute regarding the adequacy of either the exemption request, the DCE, or the license transfer application.”<sup>137</sup> In addition, the *Indian Point* Commission noted that a requirement that the DOE recoveries serve as collateral necessary for additional financial assurance was imposed on the Vermont Yankee license and that New York simply failed to raise a genuine issue over whether a similar condition was necessary in its case.<sup>138</sup>

Here, the Michigan Attorney General has demonstrated that there are genuine disputes on material questions of fact regarding Holtec’s financial qualification to qualify for a license transfer by failing to provide adequate decommissioning financial assurance and/or adequate funding for spent nuclear fuel management. In addition, the Attorney General’s arguments here show that Holtec has a number of significantly underestimated cost estimates and below industry standard contingencies in its application, such that a similar condition on the use of DOE recoveries to support the trust funds is necessary.

Holtec’s argument that if there were a shortfall it “would have the ability to make additional contributions” is simply unsupported conjecture since it cites to nothing in the Application to support the claim. Holtec’s often repeated statement in its Answer that it will have the funds, if necessary, cannot carry Holtec’s burden

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<sup>137</sup> *Indian Point*, CLI-21-01, 92 N.R.C. \_\_ at 20.

<sup>138</sup> *Id.*

in this case because it would eviscerate the need for any detail in a license transfer application.

Accordingly, the Commission should find that the Attorney General has presented a genuine dispute regarding the adequacy of the exemption request, the DCE, and the license transfer application and that, at the very least, a similar condition as Vermont Yankee should be imposed in this case on the DOE recoveries.

## CONCLUSION

1. Given the nonstandard risks associated with nuclear power plant decommissioning and related activities, the consequences of which may not be apparent for decades, and in view of the structure of the proposed transfer, the Applicant's sole reliance on the trust fund to demonstrate financial qualification does not meet regulatory standards.<sup>139</sup>

2. In the likely event of a cost overrun, the license transfer application fails to establish that Holtec will be financially healthy enough to provide additional financial assurance as required pursuant to 10 C.F.R. §§ 50.82(a)(8)(vi) and (vii).

3. Due to these concerns and on behalf of the People of the State of Michigan, Attorney General Dana Nessel requests that the Commission require the Applicants to provide additional forms of financial insurance and allow her to intervene in the proceeding.

4. For the reasons stated, the Commission should grant the Attorney General's petition to intervene and associated request for hearing.

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<sup>139</sup> See 10 C.F.R. § 50.33(f).

Respectfully submitted,

Dana Nessel  
Attorney General  
State of Michigan

Signed (electronically) by

/s/ Michael E. Moody

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Dated: March 29, 2021

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<sup>140</sup> Pursuant to 10 C.F.R. § 2.304(e), the Attorney General designates Michael Moody, Assistant Attorney General, to receive service in this proceeding.

**NUCLEAR REGULATORY COMMISSION**  
**BEFORE THE SECRETARY**

In the Matter of

ENTERGY NUCLEAR OPERATIONS, INC.;  
ENTERGY NUCLEAR Palisades; HOLTEC  
INTERNATIONAL; and HOLTEC  
DECOMMISSIONING INTERNATIONAL,  
LLC; APPLICATION FOR ORDER  
CONSENTING TO TRANSFERS OF  
CONTROL OF LICENSES AND APPROVING  
CONFORMING LICENSE AMENDMENTS

Docket Nos.:  
50-155  
50-255  
72-007  
72-043

(Palisades Nuclear Plant and Big Rock Point)

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**CERTIFICATION OF SERVICE**

Pursuant to 10 C.F.R. § 2.305, I certify that I served the Reply in Support of the Michigan Attorney General's Petition for Leave to Intervene and for a Hearing in the above-captioned proceeding via the NRC's Electronic Information Exchange on March 29, 2021.

Signed (electronically) by

/s/ Michael E. Moody

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