

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

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

In the Matter of

HOLTEC INTERNATIONAL

(HI-STORE Consolidated Interim Storage  
Facility)

Docket No. 72-1051-ISFSI

**CLI-20-04**

**MEMORANDUM AND ORDER**

Today we address five separate appeals of the Atomic Safety and Licensing Board's denial of requests to intervene in the proceeding regarding Holtec International's application to construct and operate a consolidated interim storage facility (CISF) in Lea County, New Mexico.<sup>1</sup> For the reasons described below, we affirm the Board in part and reverse and remand in part. We also remand to the Board two contentions filed after the deadline.

**I. BACKGROUND**

Holtec submitted its license application in March 2017.<sup>2</sup> The proposed license would allow Holtec to store up to 8680 metric tons of uranium (MTUs) (500 loaded canisters) in the

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<sup>1</sup> See LBP-19-4, 89 NRC 353 (2019).

<sup>2</sup> See Letter from Kimberly Manzione, Holtec International, to Michael Layton, NRC (Mar. 30, 2017) (enclosing application documents including safety analysis report and environmental report) (ADAMS accession no. ML17115A431 (package)). By the time the Board ruled, Holtec had updated its application documents. The application revisions referenced in the Board's

Holtec HI-STORE CISF for a period of forty years.<sup>3</sup> Holtec's safety analysis currently encompasses only the canisters and contents approved under the generic docket 72-1040 for the HI-STORM UMAX canister storage system.<sup>4</sup> According to its application, Holtec plans up to nineteen subsequent expansion phases over the course of twenty years, with each expansion requiring a license amendment.<sup>5</sup> Holtec's environmental report (ER) anticipates operation of its proposed facility for up to 120 years (a forty-year initial licensing period plus eighty years of potential renewal periods) with up to 100,000 MTUs stored after all expansions.<sup>6</sup>

The Staff published a notice of opportunity to request a hearing on Holtec's application in July 2018.<sup>7</sup> Petitions to intervene were filed by Sierra Club; Beyond Nuclear, Inc. (Beyond Nuclear); Fasken Land and Minerals, Ltd. and Permian Basin Land and Royalty Owners (together, Fasken); Don't Waste Michigan, Citizens' Environmental Coalition, Citizens for Alternatives to Chemical Contamination, Nuclear Energy Information Service, Public Citizen, Inc., San Luis Obispo Mothers for Peace, and Nuclear Issues Studies Group (together, Joint Petitioners); Alliance for Environmental Strategies (AFES); and NAC International Inc. (NAC). The Board heard oral argument on January 23 and 24, 2019.

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decision are: Environmental Report on the Holtec International HI-STORE CIS Facility, rev. 5 (Mar. 2019) (ML19095B800) (ER); and Holtec, Licensing Report on the HI-STORE CIS Facility, rev. 0F (Jan. 31, 2019) (ML19052A379) (SAR). References in this decision refer to the same revisions unless otherwise noted.

<sup>3</sup> See Proposed License for Independent Storage of Spent Nuclear Fuel and High-Level Radioactive Waste SNM-1051, at 1 (ML17310A223) (Proposed License).

<sup>4</sup> SAR § 1.0 at 1-2; see 10 C.F.R. § 72.214 (list of approved spent fuel storage casks).

<sup>5</sup> See ER § 1.0.

<sup>6</sup> *Id.*

<sup>7</sup> See Holtec International's HI-STORE Consolidated Interim Storage Facility for Interim Storage of Spent Nuclear Fuel, 83 Fed. Reg. 32,919 (July 16, 2018).

The Board rejected all the hearing requests for either lack of standing, failure to offer an admissible contention, or both. The Board found that three petitioners—Beyond Nuclear, Sierra Club, and Fasken—had demonstrated standing but had not offered an admissible contention.<sup>8</sup> The Board concluded that Joint Petitioners and NAC had neither demonstrated standing nor offered an admissible contention.<sup>9</sup> The Board did not rule on AFES’s standing—which it found to be a close call—but rejected AFES’s petition because the organization had not proposed an admissible contention.<sup>10</sup>

All petitioners except for NAC have appealed. The Staff and Holtec oppose the appeals, as described below.

## II. DISCUSSION

### A. Standard of Review

Our regulations allow a petitioner whose hearing request has been wholly denied to appeal as of right.<sup>11</sup> We generally defer to the Board on matters of contention admissibility and standing unless an appeal demonstrates an error of law or abuse of discretion.<sup>12</sup> Similarly, we generally defer to the Board on questions pertaining to the sufficiency of factual support for the admission of a contention.<sup>13</sup>

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<sup>8</sup> See LBP-19-4, 89 NRC at 358.

<sup>9</sup> *Id.*

<sup>10</sup> *Id.* at 358, 370-71.

<sup>11</sup> 10 C.F.R. § 2.311(c).

<sup>12</sup> See, e.g., *Crow Butte Resources, Inc.* (Marsland Expansion Area), CLI-14-2, 79 NRC 11, 13-14 (2014); *Strata Energy, Inc.* (Ross *In Situ* Uranium Recovery Project), CLI-12-12, 75 NRC 603, 608-13 (2012).

<sup>13</sup> *Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-16-9, 83 NRC 472, 482, *Crow Butte*, CLI-14-2, 79 NRC at 13-14.

## B. Beyond Nuclear/Sierra Club Contention 1/Fasken

Beyond Nuclear and Fasken each proposed a single contention, and Sierra Club proposed its Contention 1, all questioning whether it is lawful to issue the proposed license at all.<sup>14</sup> These petitioners contend that the application must be rejected outright because it contemplates storage contracts with the U.S. Department of Energy (DOE) and such contracts would be illegal under the Nuclear Waste Policy Act (NWPA).<sup>15</sup> Holtec envisions that its customers will either be nuclear plant operators or DOE, depending on which entity holds title to the spent nuclear fuel.<sup>16</sup>

Beyond Nuclear, Fasken and Sierra Club all argued that it would violate the NWPA for DOE to take title to spent nuclear fuel before it builds a permanent geological repository. Section 123 of the NWPA provides that DOE will take title to the spent fuel when the Secretary

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<sup>14</sup> See *Petition to Intervene and Request for Adjudicatory Hearing by Sierra Club* (Sept. 14, 2018), at 10-17 (Sierra Club Petition). Fasken entered this proceeding through a motion “to dismiss the licensing proceeding” filed directly before us relating to this facility and another CISF proposed in Texas. See *Motion of Fasken Land and Minerals and Permian Basin Land and Royalty Owners to Dismiss Licensing Proceedings for Hi-Store Consolidated Interim Storage Facility and WCS Consolidated Interim Storage Facility* (Sept. 14, 2018). Beyond Nuclear filed a similar motion, which it attached as an exhibit to its hearing request and petition to intervene. See *Beyond Nuclear, Inc.’s Hearing Request and Petition to Intervene* (Sept. 14, 2018) (Beyond Nuclear Petition); *Beyond Nuclear, Inc.’s Motion to Dismiss Licensing Proceedings for Hi-Store Consolidated Interim Storage Facility and WCS Consolidated Interim Storage Facility for Violation of the Nuclear Waste Policy Act* (Sept. 14, 2018). Beyond Nuclear also submitted a letter after filing its appeal. See Letter from Mindy Goldstein and Dianne Curran, Counsel for Beyond Nuclear, to the Commissioners (Apr. 7, 2020). The letter does not affect our analysis below.

<sup>15</sup> See Nuclear Waste Policy Act of 1982, as amended, 42 U.S.C §§ 10101-10270 (2012). Because our regulations do not provide for a “motion to dismiss” an application, the Secretary of the Commission referred Beyond Nuclear’s and Fasken’s motions to be considered as hearing requests and as proposed contentions in each licensing proceeding. See Order of the Secretary (Oct. 29, 2018) (unpublished) (issued in this proceeding and in *Interim Storage Partners, LLC* (WCS Consolidated Interim Storage Facility)).

<sup>16</sup> See, e.g., Proposed License at 2, ¶ 17 (“[T]he construction program will be undertaken only after a definitive agreement with the prospective user/payer for storing the used fuel ([DOE] and/or a nuclear plant owner).”).

of Energy accepts delivery of it.<sup>17</sup> Section 302 of the NWPA provides that the Secretary of Energy will enter contracts with the spent fuel generators (nuclear power plant owners) that “shall provide that” the Secretary will take title to the spent fuel “following commencement of operation of a repository.”<sup>18</sup> And a “repository” is defined in the NWPA as a system intended for “permanent deep geological disposal of high-level radioactive waste and spent nuclear fuel.”<sup>19</sup>

During oral argument on the petitions, Holtec’s counsel acknowledged that the NWPA would prevent DOE from taking title to spent nuclear fuel and therefore (except for a relatively small quantity of waste it already owns) DOE could not be a CISF customer.<sup>20</sup> Holtec also acknowledged that it hopes Congress will change the law to allow DOE to enter into temporary storage contracts with Holtec.<sup>21</sup> But Holtec argued that because the application also contemplates that nuclear plant owners might be potential customers, the petitioners have not raised a litigable contention.

The Board rejected the argument that the “mere mention of DOE renders Holtec’s license application unlawful.”<sup>22</sup> The Board observed that Holtec “is committed to going forward with the project” by contracting directly with the plant owners.<sup>23</sup> The Board held that whether that option is “commercially viable” was not an issue before the Board.<sup>24</sup> And it noted that

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<sup>17</sup> 42 U.S.C. § 10143.

<sup>18</sup> *Id.* § 10222(a)(5)(A).

<sup>19</sup> *Id.* § 10101(18).

<sup>20</sup> Tr. at 249-50.

<sup>21</sup> Tr. at 248, 250.

<sup>22</sup> LBP-19-4, 89 NRC at 381.

<sup>23</sup> *Id.*

<sup>24</sup> *Id.* (citing *Louisiana Energy Services, LP.* (National Enrichment Facility), CLI-05-28, 62 NRC 721, 726 (2005); *Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, N.M. 87174) CLI-01-4, 53 NRC 31, 48-49 (2001)). In *Hydro*, we observed that the NRC “is not in the business of regulating the market strategies of licensees.” *Hydro*, CLI-01-4, 53 NRC at 48-49. In *Louisiana*

Holtec had committed not to “contract unlawfully” with DOE.<sup>25</sup> The Board further pointed to DOE’s publicly taken position that it cannot lawfully provide interim storage before a repository is operational.<sup>26</sup> The Board found that the NRC can safely assume that DOE would not enter unlawful contracts because federal agencies enjoy a “presumption of regularity” that they will “act properly in the absence of evidence to the contrary.”<sup>27</sup> The Board concluded that Holtec “seeks a license that would allow it to enter into lawful customer contracts today, but also permit it to enter into additional customer contracts if and when they become lawful in the future.”<sup>28</sup>

Beyond Nuclear argues that the NRC cannot issue the proposed license because the Administrative Procedure Act prohibits agency action that is “not in accordance with the law” or “in excess of statutory jurisdiction, authority, or limitation.”<sup>29</sup> Beyond Nuclear frames the question as whether the NRC “may approve a license application containing provisions that would violate NWPA if implemented.”<sup>30</sup> Similarly, Sierra Club argues that “the Holtec project cannot be licensed if there is a possibility that the financial arrangements would be illegal.”<sup>31</sup> Fasken argues that Holtec’s license application is “outside of the ASLB’s and the NRC’s

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*Energy Services*, we denied review of the Board’s decision to reject a portion of a contention that questioned the commercial viability of the proposed project, and we held that the license applicant did not have to “demonstrate the potential profitability of the proposed facility.” *Louisiana Energy Services*, CLI-05-28, 62 NRC at 725.

<sup>25</sup> See LBP-19-4, 89 NRC at 381.

<sup>26</sup> *Id.* at 382.

<sup>27</sup> *Id.* (citing *United States v. Armstrong*, 517 U.S. 456, 464 (1996); *United States v. Chem. Found. Inc.*, 272 U.S. 1, 14-15 (1926)); see also *FCC v. Schrieber*, 381 U.S. 279, 296 (1965).

<sup>28</sup> LBP-19-4, 89 NRC at 382.

<sup>29</sup> *Beyond Nuclear’s Brief on Appeal of LBP-19-04* (June 3, 2019), at 7 (Beyond Nuclear Appeal) (quoting Administrative Procedure Act, 5 U.S.C § 706(2)(A), (C)).

<sup>30</sup> *Id.*

<sup>31</sup> *Sierra Club’s Petition for Review of Atomic Safety and Licensing Board Decision Denying Admissibility of Contentions in Licensing Proceeding* (June 3, 2019), at 5 (Sierra Club Appeal).

subject-matter jurisdiction” because approval would authorize a facility that violates the NWPA.<sup>32</sup> The Staff and Holtec oppose the appeals.<sup>33</sup>

The three appellants’ characterization largely restates arguments already advanced to the Board.<sup>34</sup> As the Board observed, “Holtec seeks a license that would allow it to enter into lawful customer contracts today, but also permit it to enter into additional customer contracts if and when they become lawful in the future.”<sup>35</sup> The proposed license would authorize Holtec to take possession of the spent nuclear fuel in its CISF; the license itself would not violate the NWPA by transferring the title to the fuel, nor would it authorize Holtec or DOE to enter into storage contracts.<sup>36</sup> Holtec and DOE acknowledge that it would be illegal under NWPA for DOE to take title to the spent nuclear fuel at this time, although Holtec states that it hopes that Congress will amend the NWPA in the future.<sup>37</sup> We disagree with the assertions that the license

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<sup>32</sup> *Fasken and PBLRO Notice of Appeal and Petition for Review* (June 3, 2019), at 3-4 (Fasken Appeal).

<sup>33</sup> See *NRC Staff Answer in Opposition to Beyond Nuclear’s Appeal of LBP-19-4* (June 28, 2019); *Holtec International’s Brief in Opposition to Beyond Nuclear’s Appeal of LBP-19-4* (June 28, 2019); *NRC Staff Answer in Opposition to Fasken Land and Minerals, Ltd. and Permian Basin Land and Royalty Owners’ Appeal of LBP-19-4* (June 28, 2019); *Holtec International’s Brief in Opposition to Fasken and Permian Basin Land and Royalty Owners’ Appeal of LBP-19-4* (June 28, 2019) (Holtec Opposition to Fasken Appeal); *NRC Staff’s Answer in Opposition to the Sierra Club’s Appeal of LBP-19-4* (June 28, 2019), at 5-7 (Staff Opposition to Sierra Club Appeal); *Holtec International’s Brief in Opposition to Sierra Club’s Appeal of LBP-19-4* (June 28, 2019), at 6-9 (Holtec Opposition to Sierra Club Appeal). Holtec challenges the Board’s ruling on Fasken’s standing as well, which we discuss in section II.F.1 below. See Holtec Opposition to Fasken Appeal at 14-19.

<sup>34</sup> *Florida Power & Light Company* (Turkey Point Nuclear Generating Units 6 and 7), CLI-17-12, 86 NRC 215, 219 (2017) (rejecting an appeal that only restated arguments previously raised before the board).

<sup>35</sup> LBP-19-4, 89 NRC at 382.

<sup>36</sup> See Proposed License at 2, ¶ 17.

<sup>37</sup> See LBP-19-4, 89 NRC at 381-82.

would violate the NWPA.<sup>38</sup> The NWPA does not prohibit a nuclear power plant licensee from transferring spent nuclear fuel to another private entity. We therefore affirm the Board's decision to reject this contention.

### **C. Sierra Club Appeal**

The Board found that Sierra Club had shown standing but that none of its twenty-nine proposed contentions were admissible. Sierra Club has now appealed with respect to ten of those contentions in addition to its Contention 1 discussed above.<sup>39</sup> On October 23, 2019, Sierra Club also moved to admit a new contention concerning transportation risks.<sup>40</sup>

#### **1. Sierra Club Standing**

As an initial matter, Holtec challenges the Board's finding that Sierra Club has standing in this proceeding.<sup>41</sup> Although in matters involving construction or operation of a nuclear power reactor we allow a "proximity presumption" of standing to persons living within fifty miles of the proposed site, in non-power reactor cases, standing is examined on a case-by-case basis considering the petitioner's proximity to the site in addition to other factors.<sup>42</sup> This

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<sup>38</sup> To the extent Sierra Club argues that we should grant its appeal on Contention 1 because Holtec will use the license as "leverage to encourage Congress to change the law," we also reject that line of argument for the reasons discussed below in response to Sierra Club's appeal of Contention 26 and the Joint Petitioners' appeal of their Contention 14. Sierra Club Appeal at 9. Fasken suggests that the Secretary of the Commission improvidently referred its motion to dismiss to the Board for consideration as a legal contention. Fasken Appeal at 1-4. But our regulations do not provide for a motion to dismiss, and Fasken has not demonstrated how consideration of its arguments under our contention admissibility standards negatively impacted its position. In any event, the Board's finding that Holtec's application does not violate the NWPA addressed the gravamen of Fasken's motion to dismiss.

<sup>39</sup> Sierra Club Appeal at 5-7.

<sup>40</sup> *Sierra Club's Motion to File a New Late-Filed Contention* (Oct. 23, 2019), (Sierra Club Motion for New Contention 30); Attach., Contention 30 (Sierra Club Contention 30).

<sup>41</sup> Holtec Opposition to Sierra Club Appeal at 27-30.

<sup>42</sup> *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 71 NRC 111, 116-17 (1995).



“proximity-plus” standard takes into account both the nature of the proposed activity and significance of the radioactive source.<sup>43</sup>

Sierra Club based its standing on declarations of its members who live and work near the proposed site.<sup>44</sup> The Board observed that one of Sierra Club’s declarants, Daniel Berry, lives less than ten miles from the site and owns and operates a ranch just three miles away from the site.<sup>45</sup> Mr. Berry stated that he, his wife, and his ranch hands spend time every day traversing the ranch on foot, horseback, and ATV, while managing their cattle.<sup>46</sup>

The Board found that Sierra Club had established standing based on the proximity of its member Mr. Berry. It observed that the distances of his home and activities are “well within the limits that have been found to confer standing to challenge much smaller storage facilities.”<sup>47</sup> It rejected Holtec’s argument that an individual “who lives sufficiently close to a potentially massive facility for storing much of the nation’s spent nuclear fuel must first demonstrate with specificity how radiation might reach them.”<sup>48</sup>

On appeal, Holtec claims that the Board erred by granting Sierra Club standing even though its “pleadings lacked meaningful explanation as to how the activities at the CISF might lead to a

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<sup>43</sup> *Id.*

<sup>44</sup> Sierra Club Petition at 6.

<sup>45</sup> LBP-19-4, 89 NRC at 12-13. Mr. Berry submitted two declarations in this proceeding, one authorizing Sierra Club and the other authorizing Beyond Nuclear to represent his interest in this proceeding. Although the declaration submitted with the Sierra Club Petition stated that his home and ranch lie “less than 10 miles from the site,” the declaration submitted with Beyond Nuclear’s Petition was more detailed. In that declaration, Mr. Berry explained that his ranch, the T Over V ranch, consists of privately owned land and leased land, and he provided a map showing that a portion of the ranch lies about 3.2 miles away from the proposed CISF site. See Beyond Nuclear Petition, Attach. Ex. 2, Declaration of Daniel C. Berry III (Sept. 11, 2018) (Berry Beyond Nuclear Declaration).

<sup>46</sup> Berry Beyond Nuclear Declaration at ¶¶ 4-5.

<sup>47</sup> LBP-19-4, 89 NRC at 366.

<sup>48</sup> *Id.* at 367.

release which could affect any of their members.”<sup>49</sup> Our standing precedents require petitioners “to show a specific and plausible means” for how the licensed-activities will affect them in the absence of “‘obvious’ potential for offsite harm.”<sup>50</sup> We generally defer to a Board’s ruling on standing in the absence of clear error or an abuse of discretion.<sup>51</sup> In this case, the Board’s finding of standing is reasonable given the size of the facility and Mr. Berry’s activities in close proximity to that facility. We therefore reject Holtec’s argument that Sierra Club failed to establish standing.

## **2. Sierra Club Contention 4 (Transportation Risks)**

Sierra Club asserted in Contention 4 that section 4.9 of the ER inadequately addressed risks associated with transporting radioactive waste from the reactor sites to the CISF.<sup>52</sup> It argued that the ER fails to account for severe rail accidents that could release radiation. In support of its argument, Sierra Club relied on an analysis performed by its expert, Dr. Marvin Resnikoff, of the radiological consequences of a spent fuel canister subject to the conditions of a rail tunnel fire similar to one that took place in the Howard Street Tunnel in Baltimore in 2001 (Baltimore Tunnel Analysis).<sup>53</sup> The Baltimore Tunnel Analysis concluded that in a similar accident, a spent fuel cask would fail and the fuel rods would burst within eleven hours.<sup>54</sup> The

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<sup>49</sup> Holtec Opposition to Sierra Club at 28.

<sup>50</sup> *Nuclear Fuel Servs., Inc.* (Erwin, Tenn.), CLI-04-13, 59 NRC 244, 248 (2004).

<sup>51</sup> See, e.g., *Strata Energy*, CLI-12-12, 75 NRC at 608-13 (2012) (deferring to board’s finding of standing based on dust from project employees driving near petitioner’s house).

<sup>52</sup> Sierra Club Petition at 22-27.

<sup>53</sup> Matthew Lamb & Marvin Resnikoff, *Radiological Consequences of Severe Rail Accidents Involving Spent Nuclear Fuel Shipments to Yucca Mountain: Hypothetical Baltimore Rail Tunnel Fire Involving SNF* (Sept. 2001), available at <http://www.state.nv.us/nucwaste/news2001/nn11459.htm> (last visited Nov. 7, 2019). According to the report, the Baltimore Tunnel Fire burned for three days or more at temperatures of at least 1500°F. *Id.* at 9.

<sup>54</sup> *Id.* at 8-9.

study also provided estimates for the population exposed and latent cancer fatalities.<sup>55</sup> According to Sierra Club, Dr. Resnikoff has updated his 2001 Baltimore Analysis and now estimates that a major rail accident could release 20 million person-rem, 1250 times Holtec's estimate.<sup>56</sup> Sierra Club also claimed that Holtec underestimates the likelihood of a severe rail accident because Holtec relies on the Department of Energy's 2008 Yucca Mountain Final Supplemental Environmental Impact Statement (FSEIS), which Sierra Club claims is outdated and does not account for recent information about increased rail traffic, derailments, and fires.<sup>57</sup>

Holtec argued in its answer and at oral argument that because its ER incorporated specific portions of the DOE 2008 Yucca Mountain FSEIS, Sierra Club must specifically dispute the analysis in the DOE Supplemental Environmental Impact Statement (SEIS) in order to show a genuine dispute.<sup>58</sup> Holtec's ER accident analysis "tiered from" section 6.3.3.2 of the Yucca Mountain FSEIS.<sup>59</sup> In that section DOE responded to a 2001 study by Matthew Lamb and Dr. Resnikoff that claimed that the latent cancer fatalities resulting from a severe accident in an urban area of Nevada could be between 13 and 40,868 (Nevada Accident Analysis).<sup>60</sup> DOE

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<sup>55</sup> *Id.* at 13; Sierra Club Petition at 24-25.

<sup>56</sup> Sierra Club Petition at 25.

<sup>57</sup> *Id.* at 25-26; see U.S. Department of Energy, Office of Civilian Radioactive Waste Management, "Final Supplemental Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada," (June 2008), vol. 1, § 6.3.3 (ML081750191 (package)) (Yucca Mountain FSEIS).

<sup>58</sup> See *Holtec International's Answer Opposing Sierra Club's Petition to Intervene and Request for Adjudicatory Hearing on Holtec International's HI-STORE Consolidated Interim Storage Facility Application* (Oct. 9, 2018), at 28-29 (Holtec Answer to Sierra Club); Tr. at 258 ("The DOE analysis specifically addressed the higher estimates provided by Lamb and Resnikoff.").

<sup>59</sup> See ER § 4.9.3.2 (transportation accident impacts).

<sup>60</sup> Matthew Lamb, et. al, *Worst Case Credible Nuclear Transportation Accidents: Analysis for Urban and Rural Nevada* (Aug. 2001). The Yucca Mountain FSEIS refers to this document as DIRS 181756.

stated that this estimate was unrealistic because Mr. Lamb and Dr. Renikoff had used conservative or bounding values for multiple parameters in their computer analysis, resulting in “unrealistically high yields.”<sup>61</sup>

The Board rejected the contention on various grounds. The Board agreed with Holtec and found that Sierra Club had not shown a genuine dispute with the application because it had “not address[ed] or disput[ed]” the criticisms of the Lamb and Resnikoff Study contained in the Yucca Mountain FSEIS on which Holtec’s ER had relied.<sup>62</sup> The Board further found that the contention posed a “worst case scenario,” the consequences of which need not be discussed under NEPA.<sup>63</sup> The Board observed that the intensity of the Baltimore Tunnel Fire was caused by the flammable contents of the railcars, and, according to statements by Holtec’s counsel during oral argument, shipments to the CISF will be in dedicated trains without such contents.<sup>64</sup> It concluded that a scenario similar to the Baltimore Tunnel Fire would be “extraordinarily unlikely.”<sup>65</sup> It further found that Sierra Club had offered no facts or expert opinion to support its argument that Holtec failed to account for recent information about increased rail traffic and oil tanker rail cars.<sup>66</sup>

On appeal, Sierra Club reasserts its claim that the application has underestimated the consequences of an accident and argues that the Baltimore Tunnel Analysis was sufficient to

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<sup>61</sup> Yucca Mountain FSEIS at 6-23.

<sup>62</sup> LBP-19-4, 89 NRC at 387.

<sup>63</sup> *Id.* at 387-88 (citing *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-02-25, 56 NRC 340, 352 (2002)).

<sup>64</sup> *Id.* (citing Tr. at 256-57).

<sup>65</sup> *Id.* at 388.

<sup>66</sup> *Id.* (citing Sierra Club Petition at 25-26).

raise a factual dispute.<sup>67</sup> It does not reassert its arguments about the likelihood of a rail accident. Nor does it address the Board's conclusion that the proposed contention sought an analysis of an "extraordinarily unlikely" worst case analysis.

We conclude that Sierra Club identifies no Board error in rejecting the contention. The Board is correct that NEPA does not require a "worst case" analysis for potential accident consequences.<sup>68</sup> In addition, the Board correctly found that Sierra Club offered no expert opinion or documentary support for its assertions about increased rail traffic or railroad fires. And although Sierra Club argues that the Yucca Mountain FSEIS is out of date, the Baltimore Tunnel Analysis, on which Sierra Club relies, predates the Yucca Mountain FSEIS by several years.<sup>69</sup> Moreover, the NRC has studied what would happen to various spent fuel transportation packages if they were subjected to the conditions of the Baltimore Tunnel Fire and concluded that the potential consequences are negligible.<sup>70</sup> And contrary to the assertions in Sierra Club's contention, Dr. Resnikoff's declaration provided no updated information on the subject except for a general statement that he "reviewed" and endorsed the claims in Sierra Club's contentions.<sup>71</sup> This is insufficient factual support for a contention. We therefore affirm the Board's decision to reject the contention.

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<sup>67</sup> Sierra Club Appeal at 9-11.

<sup>68</sup> See *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 354 (1989).

<sup>69</sup> See Yucca Mountain FSEIS vol. 1, § 6.3.3.2.

<sup>70</sup> See "Spent Fuel Transportation Package Risk Assessment" (Final Report), NUREG-2125, at 127 (Jan. 2014) (ML14031A323); "Spent Fuel Transportation Package Response to the Baltimore Tunnel Fire Scenario" NUREG/CR-6886, rev. 2, § 8.3 (Feb. 2009) (ML090570742).

<sup>71</sup> Sierra Club Petition, Attach., Declaration of Marvin Resnikoff (Sept. 13, 2018).

### **3. Sierra Club Contention 8 (Decommissioning Funds)**

Sierra Club argued in Contention 8 that Holtec's application does not set forth a plan to provide adequate funds for decommissioning.<sup>72</sup> Sierra Club argued that the amount that Holtec intends to set aside for decommissioning the site is "completely inadequate" to cover Holtec's \$23 million estimated decommissioning costs.<sup>73</sup> In addition, Sierra Club argued that Holtec's decommissioning cost estimate only covers the first phase of the project and the application should explain how Holtec will fund decommissioning the site following the ensuing twenty phases.<sup>74</sup>

According to its application, Holtec plans to provide financial assurance for decommissioning by establishing a sinking fund coupled with a surety, insurance, or other guarantee as described in 10 C.F.R § 72.30(e)(3). Specifically, Holtec intends to set aside \$840 per MTU stored at the facility and counts on a 3% rate of return.<sup>75</sup> In its answer to Sierra Club's hearing request, Holtec argued that Sierra Club's calculations were incorrect for two reasons. First, Sierra Club had assumed that Holtec would only accept up to 5000 MTU in its initial phase and therefore set aside only \$4,200,000 for future decommissioning. But Holtec's application is for a license to store up to 8680 MTU, which would require Holtec to provide up to \$7,291,200 for future decommissioning.<sup>76</sup> Second, Holtec claimed that Sierra Club did not account for the 3% rate of return Holtec expects to earn on the funds set aside.<sup>77</sup> Holtec also pointed out that

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<sup>72</sup> See Sierra Club Petition at 35-37.

<sup>73</sup> *Id.* at 36 (citing Holtec International & Eddy Lea Energy Alliance (ELEA) Underground CISF - Financial Assurance & Project Life Cycle Cost Estimates, Holtec Report No. HI-2177593 (undated), at 6 (ML18345A143) (Decommissioning Cost Estimate)).

<sup>74</sup> *Id.*

<sup>75</sup> Decommissioning Cost Estimate § 2.2.

<sup>76</sup> Holtec Answer to Sierra Club at 44.

<sup>77</sup> *Id.* at 44-45; see Decommissioning Cost Estimate § 2.2.

its decommissioning funding plan will have to be updated and resubmitted every three years.<sup>78</sup> Further, it argued, “even if there were some shortfall in Holtec’s calculation of the amount of funds needing to be set aside (which there is not), it would be covered by the surety” and therefore the contention raised no genuine material dispute with the application.<sup>79</sup>

Sierra Club responded to Holtec by questioning its reliance on compound interest.<sup>80</sup> Sierra Club pointed out that if Holtec’s fund were to earn only a 2% rate of return rather than the 3% upon which it relies, it would have only \$10,941,921 after forty years, “far below” the \$23 million estimate in the Decommissioning Funding Plan.<sup>81</sup> It further argued that it was “doubtful” that any surety company would issue a bond for Holtec’s facility.<sup>82</sup> Holtec responded with a motion to strike the arguments concerning the rate of return and its ability to obtain a surety bond because these arguments were raised for the first time in the reply and therefore unjustifiably late.<sup>83</sup>

The Board found that Sierra Club’s proposed Contention 8 had not raised a genuine dispute with the application. The Board rejected the argument that Holtec’s decommissioning plan must show how it would fund decommissioning of all future expansions of the project because the application only covers the first phase and Holtec will have to update its plan for

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<sup>78</sup> Holtec Answer to Sierra Club. at 45-46; see 10 C.F.R. § 72.30(c).

<sup>79</sup> Holtec Answer to Sierra Club at 46.

<sup>80</sup> *Sierra Club’s Reply to Answers Filed by Holtec International and NRC Staff* (Oct. 16, 2019), at 28 (Sierra Club Reply).

<sup>81</sup> *Id.*

<sup>82</sup> *Id.* at 29-30.

<sup>83</sup> *Holtec International’s Motion to Strike Portions of Replies of Alliance for Environmental Strategies, Don’t Waste Michigan et al., NAC International Inc., and Sierra Club* (Oct. 26, 2018), at 10-11.

any future expansions.<sup>84</sup> The Board further rejected Sierra Club's arguments that Holtec could not rely on a "reasonable rate of return" of 3% and that a surety bond is "doubtful" because those arguments were impermissibly late and factually unsupported.<sup>85</sup>

In its appeal, Sierra Club reiterates that the plan must provide for decommissioning all twenty phases of the project without identifying an error in the Board's analysis.<sup>86</sup> The Board correctly explained that any future expansion of the facility will require a license amendment and an update to the decommissioning plan. Because Sierra Club does not point to a Board error, there is no basis for us to reverse the Board; it is not sufficient for an appellant merely to repeat the arguments it made before the Board.<sup>87</sup> Sierra Club also reasserts its argument that Holtec provided no assurance that it will earn a 3% rate of return on the funds set aside for decommissioning.<sup>88</sup> Sierra Club does not address the Board's finding that the argument was impermissibly late. The 3% figure was included in Holtec's Decommissioning Cost Estimate at the time Sierra Club filed its contentions, and therefore Sierra Club could have challenged it then.<sup>89</sup> Moreover, Sierra Club does not counter the Board's finding that its argument was unsupported. In short, Sierra Club points to no Board error in rejecting this contention, and we affirm the Board.

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<sup>84</sup> LBP-19-4, 89 NRC at 393.

<sup>85</sup> *Id.* at 393-94.

<sup>86</sup> Sierra Club Appeal at 12-13.

<sup>87</sup> *Turkey Point*, CLI-17-12, 86 NRC at 219.

<sup>88</sup> Sierra Club Appeal at 12-13.

<sup>89</sup> See Decommissioning Cost Estimate § 2.2.



**4. Sierra Club Contention 9 (Impacts from Beyond Design Life and Service Life of Storage Containers)**

Sierra Club argued in Contention 9 that the application must consider the risk that the storage canisters will be left on the CISF beyond their design life of 60 years and expected service life of 100 years.<sup>90</sup> Sierra Club pointed out that the HI-STORE UMAX canisters designated to be used at the site have only a 60-year design life and 100-year service life, whereas the ER states that the CISF may operate up to 120 years until a permanent repository is available to take the waste.<sup>91</sup> Moreover, Sierra Club argued that the ER should consider the possibility that a permanent repository never becomes available, making the Holtec site a *de facto* permanent repository.<sup>92</sup> Sierra Club further argued that the Generic Environmental Impact Statement for Continued Storage of Spent Nuclear Fuel (Continued Storage GEIS) is not applicable to the proposed Holtec facility.<sup>93</sup> Sierra Club argued that the analysis in the Continued Storage GEIS assumes that an away-from-reactor spent fuel storage facility will have a dry transfer system (DTS) to repackage damaged or leaking canisters whereas the Holtec facility will have no DTS.<sup>94</sup> Therefore, Sierra Club argued, the proposed Holtec facility is not like the hypothetical facility discussed in the Continued Storage GEIS.

The Board found that the contention presented both environmental and safety aspects, neither of which was admissible. It found that the environmental aspect of this contention impermissibly challenged the Continued Storage Rule and the Continued Storage GEIS

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<sup>90</sup> See Sierra Club Petition at 38-42.

<sup>91</sup> *Id.* at 38-39 (citing ER § 1.0).

<sup>92</sup> *Id.* at 40.

<sup>93</sup> *Id.* at 40-41.

<sup>94</sup> *Id.*; see “Generic Environmental Impact Statement for Continued Storage of Spent Nuclear Fuel” (Final Report), NUREG-2157, vol. 1, ch. 5 (Sept. 2014) (ML14196A105) (Continued Storage GEIS).

because Sierra Club did not seek a rule waiver.<sup>95</sup> To the extent that proposed Contention 9 raised safety issues, the Board found that it did not raise a genuine dispute with the application because it “ignore[d] the SAR’s discussion of retrievability, inspection, and maintenance activities.”<sup>96</sup>

Sierra Club’s appeal essentially reasserts its arguments before the Board without confronting the Board’s findings. The Continued Storage Rule provides that long term environmental effects associated with spent fuel storage are set forth in the Continued Storage GEIS and need not be reiterated in individual license proceedings. On appeal, Sierra Club does not address the Board’s finding that it must request a rule waiver in order to argue that the Continued Storage Rule should not apply in this proceeding.<sup>97</sup> Additionally, Sierra Club repeats the argument that the Continued Storage Rule does not apply to the proposed Holtec facility because the Continued Storage GEIS assumes the presence of a DTS.<sup>98</sup> However, its factual premise is mistaken. The Continued Storage GEIS assumes that a DTS would be built in the “long-term storage” and indefinite timeframes.<sup>99</sup> The Continued Storage GEIS assumes that a DTS will not be present initially and that is consistent with Holtec’s proposed facility. The application therefore does not need to discuss the effects of a DTS (or the consequences of not

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<sup>95</sup> LBP-19-4, 89 NRC at 395; see 10 C.F.R. § 51.23 (Continued Storage Rule); 10 C.F.R. § 2.335 (no Commission regulation is subject to challenge in an individual licensing proceeding except when a waiver of the rule is sought and granted on the basis that application of the rule to the particular situation would not serve the purpose for which the rule was adopted).

<sup>96</sup> LBP-19-4, 89 NRC at 395 (citing provisions of the SAR relating to monitoring, maintenance, and aging management).

<sup>97</sup> See 10 C.F.R. § 2.335(b).

<sup>98</sup> Sierra Club Appeal at 13-14.

<sup>99</sup> Continued Storage GEIS § 1.8.2 at 1-14, § 5.0 at 5-2.

having a DTS). If Holtec receives a license and decides to build a DTS, then it would need to seek an amendment to its license.

Next, Sierra Club argues that the Board relied on Holtec's "unsupported conclusory statement that it will somehow monitor and retrieve the waste in the future" and reasserts its claim that "once a crack starts in a canister, it can break through and cause a leak in [sixteen] years."<sup>100</sup> But Holtec's statements are not unsupported or conclusory—its SAR discusses plans for inspection, maintenance, retrieval, and aging management.<sup>101</sup> The SAR specifically discusses the issue of stress corrosion cracking and concludes that, due to the low halide content of the air at the proposed CISF site, chloride-induced stress corrosion cracking is a remote possibility.<sup>102</sup> The SAR also describes how it will monitor the canisters to detect any stress corrosion cracking in its aging management program.<sup>103</sup>

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<sup>100</sup> Sierra Club Appeal at 14. Sierra Club points to a YouTube video which it claims depicts Holtec's President Krishna Singh acknowledging that Holtec canisters "cannot be inspected, repaired or repackaged." *Id.*; see also Sierra Club Petition at 41. But Dr. Singh does not say that the canisters cannot be inspected or repackaged. The video clip appears to show Dr. Singh at an October 14, 2014 meeting, in which he stated that should a canister develop a through-wall hole, it would not be practical to repair it, and the solution would be to isolate the canister in a cask. See [www.youtube.com/watch?v=euaFZt0YPi4](http://www.youtube.com/watch?v=euaFZt0YPi4) (last visited Oct. 21, 2019). In its petition, Sierra Club cited an NRC Staff meeting summary where this statement was made, but it does not acknowledge that this discussion pertained to the specific phenomenon of chloride-induced stress corrosion cracking. See Sierra Club Petition at 41 (citing Memorandum from Kristina Banovac, Office of Nuclear Material Safety and Safeguards, to Anthony Hsia, Office of Nuclear Material Safety and Safeguards, "Summary of August 5, 2014, Public Meeting with Nuclear Energy Institute on Chloride Induced Stress Corrosion Cracking Regulatory Issue Resolution Protocol" (Sept. 9, 2014) (ML14258A081)).

<sup>101</sup> See, e.g., SAR §§ 3.1.4.1 (inspection of incoming casks), 3.1.4.4 (surveillance during storage), 5.4.1.2 (the HI-STORM UMAX cask system allows retrieval "under all conditions of storage"); see generally, *id.* ch. 18, Aging Management Program.

<sup>102</sup> See SAR §§ 17.11, 18.3.

<sup>103</sup> See SAR §§ 18.3, 18.5.

The Board found that Sierra Club Contention 9 did not acknowledge or discuss these sections of the SAR or challenge the application's conclusion.<sup>104</sup> On appeal, Sierra Club does not address the Board's finding that it had failed to dispute relevant portions of the SAR.

We agree with the Board's conclusion that Sierra Club's petition did not challenge these discussions in the SAR.

We therefore conclude that Sierra Club's appeal does not identify Board error in rejecting its proposed Contention 9, and we affirm the Board.

##### **5. Sierra Club Contention 11 (Earthquakes)**

Sierra Club argued in Contention 11 that the ER and SAR had inadequately discussed earthquake risks to the facility, including seismic activity induced by oil and gas recovery operations.<sup>105</sup> Sierra Club asserted that the information in Holtec's SAR and in its ER used "historical data that does not take into account the recent increase in drilling for oil and natural gas that creates induced earthquakes."<sup>106</sup> It attached to its petition a 2018 scientific study (the "Stanford Report"), which it claimed "documented the existence of prior earthquakes in southeast New Mexico" and "the existence of numerous faults in the area in and around the proposed Holtec site."<sup>107</sup> It also claimed that "the oil and gas industry" is concerned that the Holtec facility would impact oil and gas operations in the area and cited the scoping comments

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<sup>104</sup> LBP-19-4, 89 NRC at 395.

<sup>105</sup> See Sierra Club Petition at 44-48.

<sup>106</sup> *Id.* at 45-46; see also ER § 3.3.2; SAR § 2.6.

<sup>107</sup> Sierra Club Petition at 44-45 (citing Jens-Erik Lund Snee and Mark D. Zobeck, *State of Stress in the Permian Basin, Texas and New Mexico: Implications for Induced Seismicity*, The Leading Edge, Feb. 2018, at 127-32 (Stanford Report)).

that Fasken Oil and Ranch, Ltd. and PBLRO Coalition submitted to NRC with respect to the Holtec application.<sup>108</sup>

The Board rejected Sierra Club's contention because it presented no genuine dispute with the application.<sup>109</sup> The Board observed that the ER and SAR both used data from the 2016 U.S. Geological Survey, the latest available at the time of its 2017 application.<sup>110</sup> It found that Sierra Club had not provided evidence of any "significant seismic events around the proposed project site" since 2016 and therefore rejected the claim that the application was outdated.<sup>111</sup> The Board observed that both the ER and the SAR specifically discuss the effects of "fracking."<sup>112</sup> Finally, the Board found that there was "no dispute between the Stanford Report and the SAR's seismic analyses" and noted that the illustrations provided in the report appeared to confirm the SAR's claim that the closest Quaternary fault (active within the last 1.6 million years) is approximately seventy-five miles away and the nearest fault of any kind is forty miles from the site.<sup>113</sup>

On appeal, Sierra Club reasserts its claims that Holtec's information is out of date and that the Stanford Report contradicts information in the application. But the Sierra Club adds a new claim with respect to the Stanford Report—that the report "document[s] that due to

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<sup>108</sup> *Id.* at 47-48, Ex. 7, Letter from Tommy E. Taylor, Fasken Oil and Ranch, Ltd. to Michael Layton, NRC (July 30, 2018).

<sup>109</sup> LBP-19-4, 89 NRC at 398.

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

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

<sup>112</sup> *Id.* Holtec's ER and SAR discuss fluid injection and induced seismicity from the oil and gas industry. See SAR § 2.6.2; ER § 3.3.2.1. The Stanford Report does not use the term "fracking," but it discusses fluid or wastewater injection. See, e.g., Stanford Report at 127 (noting that "[f]luid injection and hydrocarbon production have been suspected as the triggering mechanisms for numerous earthquakes that have occurred in the Permian Basin since the 1960s").

<sup>113</sup> LBP-19-4, 89 NRC at 398-99; see SAR § 2.6.2 at 2-108.

increased fracking for oil and gas, new geologic faults are being induced, coming nearer to the Holtec site.”<sup>114</sup>

We deny the appeal for many of the same reasons outlined by the Board. First, we agree with the Board that Holtec’s use of 2016 USGS data was not “out of date” and Sierra Club provided no evidence of recent seismic activity near the site. The Board reasonably concluded that the maps included in the Stanford Report seemed to confirm, rather than contradict, the SAR’s statements that there were no Quaternary faults within the immediate area of the Holtec site.<sup>115</sup> And although the Stanford Report discusses earthquakes occurring “since 2017,” there is no indication that these are stronger earthquakes than previously seen or that they occurred particularly near the site of the proposed Holtec facility.<sup>116</sup>

We are not persuaded by Sierra Club’s argument that the Stanford Report shows that oil and gas activities are inducing “new geologic faults . . . coming nearer to the Holtec site.”<sup>117</sup> This argument is new on appeal; the original contention did not claim that fracking is causing new faults to form near the Holtec site.<sup>118</sup> The claim also appears to be unsupported by the

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<sup>114</sup> Sierra Club Appeal at 15.

<sup>115</sup> LBP-19-4, 89 NRC at 398-99.

<sup>116</sup> See Stanford Report at 127. The report mentions that since January 2017, “at least three groups of earthquakes, surrounded by more diffusely located events, have occurred in the southern Delaware Basin, near Pecos, Texas. A fourth group of events occurred mostly in mid-November 2017, farther to the west in northeastern Jeff Davis County [Texas]. In addition, a group of mostly small ( $M_L < 2$ ) earthquakes occurred between Midland [Texas] and Odessa [Texas], in the Midland Basin.” *Id.* The Holtec site is in the northern Delaware Basin.

<sup>117</sup> Sierra Club Appeal at 15.

<sup>118</sup> We do not consider on appeal new arguments or new evidence that the Board had no opportunity to consider. See *USEC Inc. (American Centrifuge Plant)*, CLI-06-10, 63 NRC 451, 458 (2006).

Stanford Report, which does not indicate that new faults or earthquakes are getting closer to the Holtec site.<sup>119</sup>

We therefore find no error in the Board's determination that Sierra Club had not raised a genuine dispute with the application in Contention 11.

#### **6. Sierra Club Contentions 15-19 (Groundwater Impacts)**

Sierra Club's Contentions 15-19 all concerned potential impacts to groundwater from the CISF.<sup>120</sup> Contention 15 argued that the ER had not adequately determined whether there is shallow groundwater at the site and therefore could not adequately assess the impact of a radioactive leak from the site.<sup>121</sup> Contention 16 argued that the ER had not considered whether brine from a previous underground brine disposal operation was still present on the site and whether that brine could corrode the UMAX waste containers.<sup>122</sup> Contention 17 argued that the ER and SAR did not consider the presence and effects of fractured rock beneath the site, which could allow radioactive leaks into groundwater from the cask or allow the aforementioned brine to enter the casks and corrode the canisters.<sup>123</sup> Contention 18 argued that the ER had not discussed the possibility that "waste-contaminated groundwater" could reach the nearby Santa Rosa Formation aquifer, which is an important source of drinking water.<sup>124</sup> Contention 19

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<sup>119</sup> The Stanford Report is generally about new measurements of stress orientation and how that information might be used to predict and prevent slip on mapped faults due to fluid injection or extraction. Stanford Report at 127. Sierra Club did not point out where the document provided information in support of its claim. A board is expected to examine the documents provided in support of a proposed contention to verify that the material says what a party claims it does, but we do not expect a board to search through a document for support for a party's claims. *USEC Inc.*, CLI-06-10, 63 NRC at 457.

<sup>120</sup> See Sierra Club Petition at 60-67.

<sup>121</sup> *Id.* at 60-62.

<sup>122</sup> *Id.* at 62-63.

<sup>123</sup> *Id.* at 63-65.

<sup>124</sup> *Id.* at 65-66.

argued that Holtec may have improperly conducted tests for hydraulic conductivity between the site and the Santa Rosa Formation.<sup>125</sup>

a. *Groundwater Contentions as Challenge to Certified Design*

The Board rejected all the groundwater contentions. It found that they failed to dispute the application's conclusion that there is no potential for groundwater contamination because spent nuclear fuel contains no liquid component to leak out, and it is not credible that groundwater could leak into the canisters.<sup>126</sup> The Board observed that the canisters are contained within a steel cavity enclosure container that has no penetrations or openings on the bottom, thereby preventing outside liquids from contacting the canisters or the spent nuclear fuel within them.<sup>127</sup> The Board further found that Sierra Club had failed to dispute Holtec's conclusion that the canisters would not be breached during normal operations or any "credible off-normal event" or accident.<sup>128</sup> The Board cited our holding in *Private Fuel Storage* that "[t]o show a genuine material dispute, [a petitioner's] contention would have to give the Board reason to believe that contamination from a defective canister could find its way outside a cask."<sup>129</sup>

The Board rejected Sierra Club's argument that the material Sierra Club supplied in connection with its proposed Contentions 9, 14, 20, and 23 showed various mechanisms through which a canister could be breached. In doing so, the Board held that those contentions

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<sup>125</sup> *Id.* at 66-67.

<sup>126</sup> LBP-19-4, 89 NRC at 404-05 (citing ER § 1.3 at 1-8).

<sup>127</sup> *Id.* at 407.

<sup>128</sup> *Id.* at 404, 408; see ER § 4.13 (off-normal operations and accidents).

<sup>129</sup> LBP-19-4, 89 NRC at 405 (quoting *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-04-22, 60 NRC 125, 138-39 (2004)).



did not adequately support the groundwater contentions because they were also inadmissible.<sup>130</sup>

On appeal, Sierra Club argues that in rejecting its Contentions 9, 14, 20, and 23, the Board did not “conclusively” find that the information supporting them was “incorrect.”<sup>131</sup> Therefore, Sierra Club argues, its petition to intervene did controvert Holtec’s “assertion that the containers are impervious to leaking.”<sup>132</sup>

While it is true that in rejecting these contentions, the Board did not make a factual finding that the claims in them were “incorrect,” Contentions 9, 14, 20, and 23 were not rejected on mere pleading technicalities, as Sierra Club appears to suggest. The Board found that each of those contentions was inadmissible because (among other reasons) they challenged the certified design of the HI-STORM UMAX system. Because certified designs are incorporated into our regulations, they may not be attacked in an adjudicatory proceeding except when authorized by a rule waiver.<sup>133</sup>

A contention cannot attack a certified design without a rule waiver because this would challenge matters already fully considered and resolved in the design certification review. For example, Sierra Club Contention 14 argued that the HI-STORM UMAX casks are susceptible to overheating because the air intake and exhaust vents are both located at the top of the cask and that overheating could cause cladding degradation and corrosion.<sup>134</sup> The Board noted that the SAR “fully incorporates by reference the HI-STORM UMAX design and thermal analysis

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<sup>130</sup> *Id.* at 404.

<sup>131</sup> Sierra Club Appeal at 18.

<sup>132</sup> *Id.* at 17.

<sup>133</sup> 10 C.F.R. § 2.335.

<sup>134</sup> Sierra Club Petition at 56-60.

conducted in the HI-STORM UMAX's own Final Safety Analysis Report" and that therefore, "any challenge to the HI-STORM UMAX system design characteristics that are already deemed compliant with Part 72, including those Sierra Club designates in Contention 14 . . . are barred in this proceeding by sections 2.335 and 72.46(e)."<sup>135</sup> We agree with the Board's conclusion that Sierra Club's disagreement with the HI-STORM UMAX certified design cannot be used to support its claim that the CISF might leak.

To the extent that the groundwater contentions seek to raise design issues with the HI-STORM UMAX canister system, the Board correctly found that they challenged our regulations without seeking a waiver and are not admissible. Therefore, to the extent that the groundwater contentions are predicated on the argument that the system could leak, we affirm the Board's ruling that Sierra Club had not presented a sufficient factual basis for that claim and the contentions are not admissible.

*b. Groundwater Contentions as Challenges to Site Characterization*

Sierra Club next argues that its groundwater contentions challenge the ER's characterization of the affected environment, which the ER must provide regardless of whether the canisters could leak.<sup>136</sup> The Staff acknowledges that the ER must characterize the site, but it argues that impacts need "only be discussed in proportion to their significance."<sup>137</sup> Similarly, relying on the same passage in *Private Fuel Storage* quoted by the Board, Holtec argues that

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<sup>135</sup> LBP-19-4, 89 NRC at 402. Similarly, Sierra Club Contention 20 argued that the canisters stored at the facility would likely contain high burnup fuel, which, according to Sierra Club, can lead to thinned, embrittled or damaged cladding. Sierra Club Petition at 67-70. Sierra Club Contention 23 argued that high burnup fuel could damage the spent fuel cladding during transportation or storage and that damaged fuel would not be accepted at a permanent repository. *Id.* at 73-75. But the Board rejected the contentions because the HI-STORM UMAX canister storage system is approved for storage of high burnup fuel, and therefore, the contentions are barred by regulation. See LBP-19-4, 89 NRC at 412, 416-17.

<sup>136</sup> Sierra Club Appeal at 17.

<sup>137</sup> Staff Opposition to Sierra Club Appeal at 18 (quoting 10 C.F.R. § 51.45(b)(1)).

Sierra Club's claims about groundwater characterization are not "material" to the outcome of this proceeding because Sierra Club has not shown that radionuclides could make their way outside the cask.<sup>138</sup>

Of the five groundwater contentions, only Contention 18 was based entirely on the premise that leaks from the facility would contaminate the groundwater. The other contentions all raised specific arguments about the adequacy of the hydrogeological site characterization, were supported by expert opinion, and identified the portions of the application in question. In proposed Contention 15, Sierra Club questioned Holtec's claim that there is no shallow groundwater at the site and argued that Holtec relies on data from a single well in the 1040-acre site, which has apparently not been checked since 2007.<sup>139</sup> According to the declaration of Sierra Club's expert, George Rice, there are various reasons why a saturated condition may not have been encountered during drilling even though the "materials are saturated."<sup>140</sup> In Contention 16, Sierra Club argued that Holtec should determine whether brine in the groundwater could contact the facility and what effect brine could have on its structures. It pointed to ER § 3.5.2.1, which acknowledges that as of 2007 "saturations of shallow groundwater brine" have been created in the region due to brine disposal.<sup>141</sup> And in support of Sierra Club Contention 19, Mr. Rice identified three specific flaws that he claims undermine the reliability of Holtec's hydraulic conductivity tests.<sup>142</sup>

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<sup>138</sup> Holtec Opposition to Sierra Club Appeal at 24 (quoting *Private Fuel Storage*, CLI-04-22, 60 NRC at 138-39).

<sup>139</sup> See Sierra Club Standing Declarations and Expert Declarations, Declaration of George Rice (Sept. 10, 2018), at 2 (ML18257A226 (package)) (Rice Declaration).

<sup>140</sup> *Id.* at 3.

<sup>141</sup> Sierra Club Petition at 62.

<sup>142</sup> According to Mr. Rice, the report from Holtec's contractor did not confirm that it cleaned the well holes prior to the tests, used clean water, or took three or more readings at five-minute

Our regulations require an admissible contention to show a “genuine dispute exists with the applicant/licensee on a material issue of law or fact.”<sup>143</sup> A “dispute at issue is ‘material’ if its resolution would ‘make a difference in the outcome of the licensing proceeding.’”<sup>144</sup> Moreover, in the NEPA context we have warned, “[o]ne can always flyspeck an [Environmental Impact Statement (EIS)] to come up with more specifics and more areas of discussion that could have been included.”<sup>145</sup>

The Supreme Court has explained that to fulfill NEPA’s mandate, for certain major Federal actions such as this one, an agency must prepare an EIS, which “ensures that the agency, in reaching its decision, will have available, and will carefully consider, detailed information concerning significant environmental impacts” and that such information will be available to the public.<sup>146</sup> It is possible that, to the extent Sierra Club’s groundwater contentions are purely site-characterization disputes, they fail to show a material dispute with the application because they do not indicate how Sierra Club’s groundwater concerns would affect the ultimate discussion of environmental impacts.<sup>147</sup>

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intervals as recommended by the U.S. Bureau of Reclamation’s field manual. See Rice Declaration at 8.

<sup>143</sup> 10 C.F.R. § 2.309(f)(1)(vi).

<sup>144</sup> *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 333-34 (1999) (quoting Rules of Practice for Domestic Licensing Proceedings – Procedural Changes in the Hearing Process, 54 Fed. Reg. at 33,168, 33,172 (1989)).

<sup>145</sup> *Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-04, 53 NRC 31, 71 (2001).

<sup>146</sup> *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989).

<sup>147</sup> While not binding precedent, licensing boards have generally considered site characterization claims under NEPA that explained why the site characterization was necessary to fully understand the impacts of the proposed action. *E.g.*, *Strata Energy, Inc.* (Ross In Situ Recovery Uranium Project), LBP-15-3, 81 NRC 65, 89-92 (2015) (responding to a site characterization claim by noting, “[a]t the crux of this contention is the issue of whether, to comply with NEPA’s requirement to make an adequate prelicensing assessment of environmental impacts, more extensive monitoring. . . is required”); *Powertech (USA) Inc.*

But initial determinations of contention admissibility rest with the Board, and the Board did not discuss whether any of the groundwater contentions contained a genuine issue *apart* from the claims that radioactive leaks from the canisters could contaminate the groundwater. Within the context of the need to determine whether the groundwater concerns would affect the ultimate discussion of environmental impacts, we remand Contentions 15, 16, 17, and 19 to the Board for further consideration of their admissibility with respect to the site characterization.

**7. *Sierra Club Contention 26 (Material False Statement)*  
*Joint Petitioners' Contention 14 (Material False Statement)***

Sierra Club submitted its new Contention 26, and Joint Petitioners their Contention 14, after Holtec amended its license application to provide that its clients would *either* be the DOE or nuclear plant owners.<sup>148</sup> As the Board observed, the two contentions are “substantially identical.”<sup>149</sup> Sierra Club and Joint Petitioners argued that even though Holtec’s application represents that nuclear plant owners may be its future customers, in reality Holtec still intends to go forward with the project only if it is able to secure a contract with DOE. They argued that various public statements by Holtec officials “show that Holtec’s intention has always been to rely on DOE, not the nuclear plant owners, taking title to the waste.”<sup>150</sup> For proof, Sierra Club

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(Dewey-Burdock In Situ Uranium Recovery Facility), LBP-13-9, 78 NRC 37, 47-51 (2013) (allowing site characterization issues to migrate “to the extent” they challenged applicants demonstration of aquifer confinement and impacts to groundwater).

<sup>148</sup> See *Sierra Club’s Motion to File a New Late-Filed Contention* (Jan. 19, 2019) (Sierra Club Motion for Late Contention); Attach., *Contention 26* (Jan. 19, 2019) (Sierra Club Contention 26); *Motion by Petitioners Don’t Waste Michigan, Citizens’ Environmental Coalition, Citizens for Alternatives to Chemical Contamination, Nuclear Energy Information Service, Public Citizen, Inc., San Luis Obispo Mothers for Peace and Nuclear Issues Study Group for Leave to File a New Contention* (Jan 17, 2019) (Joint Petitioners Motion for Late Contention); *DWM’s Contention 14* (Jan. 17, 2019) (Joint Petitioners’ Contention 14).

<sup>149</sup> LBP-19-4, 89 NRC at 451.

<sup>150</sup> Sierra Club Contention 26 at 3 (unnumbered); Joint Petitioners Contention 14 at 2 (unnumbered).

and Joint Petitioners cited a Holtec public email that stated that deployment of the CISF “will ultimately depend on the DOE and the U.S. Congress.”<sup>151</sup>

Sierra Club and Joint Petitioners argued that this email shows that representations in the application that nuclear plant owners may be Holtec’s future customers are therefore “materially false.” They argue that this “material false statement” should be reason enough to deny an application because the Atomic Energy Act of 1954, section 186, expressly provides that a license may be revoked over a “material false statement.”<sup>152</sup>

The Board found the contentions inadmissible because the statements in the email did not indicate that there was a “willful misrepresentation” in Holtec’s application.<sup>153</sup> The Board found that Holtec “readily acknowledges that it hopes Congress will change the law” to allow DOE to contract directly with Holtec and that Holtec itself pointed out that the need for the project could be reduced or eliminated if DOE were to build a permanent waste repository.<sup>154</sup> In short, the Board determined that Holtec has been transparent that deployment of this project may depend to some extent on actions of DOE and Congress as well as on the NRC’s licensing decision.

Moreover, the Board found that whether Holtec would use its license if Congress does not change the law is not an issue material to the license proceeding: “[T]he business decision of whether to use a license has no bearing on a licensee’s ability to safely conduct the activities the license authorizes.”<sup>155</sup>

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<sup>151</sup> See Sierra Club Motion for Late Contention, Exhibit 11, Holtec Highlights, Holtec Reprising 2018 (Jan. 2, 2019) (also attached to Joint Petitioners Contention 14 as Ex. 1).

<sup>152</sup> See Sierra Club Contention 26; Joint Petitioners Contention 14; 42 U.S.C. §§ 2011, 2236.

<sup>153</sup> LBP-19-4, 89 NRC at 421, 452.

<sup>154</sup> *Id.* at 421.

<sup>155</sup> *Id.* at 422.

On appeal, Sierra Club and Joint Petitioners principally repeat the arguments the Board rejected. But Sierra Club further argues that “Holtec is attempting to obtain a license on the false premise that nuclear plant owners will retain title to the waste. Then, once Holtec obtains the license, it will use that fact as leverage to persuade Congress to change the law to allow DOE to hold title to the waste.”<sup>156</sup> Even assuming Sierra Club’s characterization of Holtec’s intent were accurate, we agree with the Board that the statements in the application are not false. We further agree that the material issue in this license proceeding is whether Holtec has shown that it can safely operate the facility, not its future political activity or business intentions. We therefore affirm the Board with respect to Sierra Club Contention 26 and Joint Petitioners Contention 14.

#### **8. Sierra Club Contention 30**

Sierra Club filed its new proposed Contention 30 in response to a report by DOE’s Nuclear Waste Technical Review Board (NWTRB) that discusses technical issues presented by transportation of nuclear waste and spent nuclear fuel.<sup>157</sup> Sierra Club argues that the NWTRB report shows that various assumptions in the ER are invalid and that there are “barriers to the implementation of the Holtec CIS project” that must be discussed in the ER.<sup>158</sup>

Sierra Club filed this contention after the Board’s jurisdiction terminated—that is, after all contentions had been dismissed, the record closed and jurisdiction to consider the motion passed to the Commission. Although we have reopened the record for the limited purpose of

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<sup>156</sup> Sierra Club Appeal at 20-21.

<sup>157</sup> See Sierra Club Motion for New Contention 30, Attach., DOE, Preparing for Nuclear Waste Transportation—Technical Issues that Need to Be Addressed in Preparing for a Nationwide Effort to Transport Spent Nuclear Fuel and High-Level Radioactive Waste (Sept. 2019); see also *Holtec International’s Answer Opposing Sierra Club New Contention 30* (Nov. 18, 2019); *NRC Staff Opposition to Sierra Club New Contention 30* (Nov. 18, 2019).

<sup>158</sup> Sierra Club Contention 30, at 1 (unnumbered).

determining the admissibility of Sierra Club's groundwater contentions, the record remains closed for any other purpose.<sup>159</sup> Therefore, Sierra Club's motion for a new contention must also meet the standards for reopening a closed record.<sup>160</sup>

Even where jurisdiction to consider reopening has passed to the Commission, however, we frequently remand such motions to the Board to consider the reopening standards in conjunction with contention admissibility, where appropriate.<sup>161</sup> We find this action appropriate here. Therefore, we remand Sierra Club's proposed Contention 30, including the issue of whether the reopening standards are met, to the Board.

#### **D. AFES Appeal**

Alliance for Environmental Strategies (AFES) is an environmental group with members located near the proposed Holtec storage site in Lea and Eddy County.<sup>162</sup> It proposed three contentions, all dealing with environmental justice concerns.<sup>163</sup> The Board rejected all three contentions, and AFES has appealed.<sup>164</sup>

##### **1. AFES Contention 1: Environmental Justice Analysis Includes Insufficient Consideration of Alternative Sites**

AFES' proposed Contention 1 raised environmental justice concerns with Holtec's site alternatives analysis. It claimed that Holtec, "as a matter of law," had not investigated enough

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<sup>159</sup> See, e.g., *Entergy Nuclear Generation Company and Entergy Nuclear Operations, Inc.* (Pilgrim Nuclear Power Station), LBP-11-20, 74 NRC 65, 76 (2011), *review denied*, CLI-12-10, 75 NRC 479 (2012).

<sup>160</sup> See, e.g., *Virginia Electric & Power Co.* (North Anna Power Station, Unit 3), CLI-12-14, 75 NRC 692, 699-700 (2012); *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-12-3, 75 NRC 132, 140-41 (2012); *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station), CLI-09-5, 69 NRC 115, 124 (2009).

<sup>161</sup> *North Anna*, CLI-12-14, 75 NRC at 702.

<sup>162</sup> *Petition to Intervene and Request for Hearing* (Sept. 12, 2018), at 1 (AFES Petition).

<sup>163</sup> *Id.* at 11-24.

<sup>164</sup> *Petition for Review by Alliance for Environmental Strategies* (May 31, 2019) (AFES Appeal).



sites “to support a finding by the Nuclear Regulatory Commission that the selected site will not have a disparate impact on the minority population of Lea and Eddy County.”<sup>165</sup> Accordingly, proposed Contention 1 called for a new ER “that both studies and addresses alternative sites nationwide, why such sites are rejected, and what impact the selected site will have on minority and low-income local populations.”<sup>166</sup>

The Board ruled proposed Contention 1 inadmissible because Holtec’s ER complied with applicable NRC guidance on environmental justice evaluations in licensing actions.<sup>167</sup> The Board found that Holtec’s ER “describes the social and economic characteristics of the 50-mile region of influence (ROI) around Holtec’s proposed facility” and “identifies percentages of minority and low-income communities within the Holtec facility’s ROI” that would be subject to the impacts of the facility, as recommended by NRC guidance.<sup>168</sup> The Board observed that according to applicable guidance, a difference of twenty percent or more in the percentage of minority or low-income population, when compared to the rest of the county and state, is a significant difference requiring further investigation.<sup>169</sup> But the Board found that Holtec did not identify differences greater than twenty percent and therefore did not discuss environmental justice concerns any further.<sup>170</sup> The Board also found that the ER “contains an analysis of location alternatives” including “six other potential sites that were analyzed and considered for

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<sup>165</sup> AFES Petition at 11.

<sup>166</sup> *Id.* at 21.

<sup>167</sup> See Final Report, Environmental Review Guidance for Licensing Actions Associated with NMSS Programs, NUREG-1748 at 6-25 (Aug. 2003) (NUREG-1748); see also *Policy Statement on the Treatment of Environmental Justice Matters in NRC Regulatory and Licensing Actions*, 69 Fed. Reg. 52,040 (Aug. 24, 2004).

<sup>168</sup> LBP-19-4, 89 NRC at 455.

<sup>169</sup> *Id.* (citing NUREG-1748 at C-5).

<sup>170</sup> *Id.*

suitability of the Holtec HI-STORE consolidated interim storage facility's characteristics."<sup>171</sup> The Board declined to admit proposed Contention 1 because "AFES has not shown any legal requirement for Holtec to conduct a more in-depth inquiry into alternatives to the proposed action (i.e., the siting of the facility) or environmental justice analyses in its Environmental Report"; therefore, the contention failed to show a genuine dispute with the application regarding a material issue of law or fact.<sup>172</sup>

On appeal, AFES argues that Holtec's environmental justice evaluation was insufficient because it failed to compare the population near the proposed site to the population of the United States as a whole.<sup>173</sup> AFES argues the Board was wrong "as a matter of law" to credit the ER's discussion of alternative sites because "Holtec merely re-hashed a prior investigation by a third party, with regard to a previously abandoned site for a different facility" that includes "no discussion of *any* environmental justice concerns," resulting in a "precipitous narrowing of potential alternatives to a single site in southeastern New Mexico . . . directly contrary to the NRC's Policy Statements."<sup>174</sup>

By way of background, Holtec acknowledges that it relied on a previous study by the Eddy-Lea Energy Alliance (ELEA) for much of the environmental information in its ER. The ER explains that in 2006, DOE sought bids for locating a spent fuel recycling center and developed a set of criteria for an ideal site.<sup>175</sup> Eddy, New Mexico and Lea, New Mexico formed the ELEA

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<sup>171</sup> *Id.*

<sup>172</sup> *Id.* (internal citations omitted).

<sup>173</sup> AFES Appeal at 17.

<sup>174</sup> *Id.* at 5, 13-15.

<sup>175</sup> ER § 2.3.

to find a site within their jurisdiction and propose it to DOE.<sup>176</sup> The ELEA 2007 report analyzed six sites within the two counties with emphasis on the DOE's site selection criteria, which included low population density in the surrounding area, adequate size, low flood risk, and seismic stability. These factors also correspond to Holtec's needs for a waste storage facility.<sup>177</sup> Holtec states that it reviewed ELEA's analysis and determined that the selected site is the best for its own project.<sup>178</sup>

The pertinent NRC Policy Statement in this case is the NRC's Environmental Justice Policy Statement.<sup>179</sup> That Policy Statement provides that NRC will identify minority and low-income populations near proposed nuclear sites so that it can determine whether the environmental impacts associated with a given site will be different for those populations when compared to the general population of the surrounding area, not the country as a whole.<sup>180</sup> An objective of the Policy Statement is that minority and low-income communities "affected by the proposed action are not overlooked in assessing the potential for significant impacts unique to those communities."<sup>181</sup>

The Board found that Holtec provided information about the impacts to minority and low-income populations within the geographic region of the proposed action, that the demographics did not show a disproportionate number of minorities or low-income people in the vicinity of the

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<sup>176</sup> *Id.* See Letter from Johnny Cope, Chairman, ELEA, to Debbie Swichkow, DOE (Apr. 28, 2007), Encl. "GNEP Final Detailed Siting Report for the Consolidated Fuel Treatment Center and Advanced Recycling Reactor" (ML17310A225, ML17310A227, ML17310A230) (ELEA 2007).

<sup>177</sup> ER § 2.3.

<sup>178</sup> *Id.* at 2-16.

<sup>179</sup> See Policy Statement on the Treatment of Environmental Justice Matters in NRC Regulatory and Licensing Actions, 69 Fed. Reg. 52,040 (Aug. 24, 2004).

<sup>180</sup> See *id.* at 52,048.

<sup>181</sup> See *id.*

site, and that AFES had not disputed the information provided.<sup>182</sup> But on appeal, AFES argues that other sites “[o]utside of these isolated, low-income communities” need to be analyzed, including sites “outside of New Mexico,” because “the targeting of rural, impoverished, low-income communities in a border state is precisely the sort of *de facto* result of the institutional racism embedded in prevailing dump site selection processes nationwide that was decried over thirty years ago . . . by the Licensing Board in [*LES*].”<sup>183</sup>

However, we reversed on appeal the board decision in *LES*, upon which AFES relies, which admitted a contention claiming racial bias in the applicant’s site-selection process.<sup>184</sup> In doing so, we explicitly rejected the idea that NEPA requires “an elaborate comparative site study” to explore whether an applicant’s siting criteria “might perpetuate institutional racism.”<sup>185</sup> The Board’s rejection of AFES’s proposed Contention 1 in this case accords with our stated environmental justice policy. We therefore affirm the Board’s holding that environmental justice does not require consideration of a wider range of alternative sites.<sup>186</sup>

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<sup>182</sup> AFES repeatedly asserts that Holtec’s evaluation of alternative sites is deficient because it relies on information developed by third parties. See, e.g., AFES Appeal at 5, 8. AFES does not point out any factual error or omission in the third-party information relied upon, however, and reliance on prior studies is commonplace in environmental impact analysis. The Board was therefore correct in its conclusion that AFES presented no genuine factual or legal dispute with this argument.

<sup>183</sup> *Id.* at 15-16 (citing *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), LBP-97-8, 45 NRC 367 (1997)).

<sup>184</sup> *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77 (1998); see also *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation) CLI-98-13, 48 NRC 26, 36 (1998) (cautioning the Licensing Board that a contention not focused on disparate environmental impacts on minority or low-income populations but instead seeking “a broad NRC inquiry into questions of motivation and social equity in siting” would “lay outside NEPA’s purview.”).

<sup>185</sup> *Louisiana Energy Services*, CLI-98-3, 47 NRC at 104.

<sup>186</sup> Our guidance for NEPA reviews of materials license applications provides limited guidance regarding how wide an area should be examined in identifying potential alternative sites for a proposed project. See NUREG-1748 § 5.2. Although Holtec elected to limit its evaluation to six sites in two counties within the same state, the Staff is not limited to considering only those sites

## **2. AFES Contention 2: Disparate Impacts of Siting Process**

In proposed Contention 2, AFES asserted that “New Mexico has been targeted for the dumping of nuclear waste, resulting in a *per se* discriminatory impact on New Mexico’s minority population, in comparison with the rest of the country.”<sup>187</sup> It included an affidavit of Professor Myrriah Gomez entitled, “Environmental Racism an Active Factor in the Siting and White Privilege Associated with the Holtec International HI-STORE Consolidated Interim Storage Facility Project.”<sup>188</sup> According to AFES, “[t]his *de facto* discrimination is exacerbated by both the historical failure to include members of the minority population in decision making regarding the location of nuclear sites in New Mexico, and the specific failure . . . to include members of the local Lea and Eddy County minority population in decision making” regarding the siting of Holtec’s proposed CISF.<sup>189</sup>

The Board found proposed Contention 2 inadmissible because it did not show a genuine dispute with the application on a material issue of law or fact: “Holtec addressed environmental justice matters to the depth recommended by NRC guidance, and neither AFES’s petition nor Dr. Gomez’s affidavit challenge the information in Holtec’s Environmental Report.”<sup>190</sup>

On appeal, AFES does not challenge the Board’s finding that Holtec’s ER comports with NRC policy and guidance on environmental justice evaluations. AFES reiterates its position that

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proposed by Holtec in its environmental impact statement. See, e.g., Final Environmental Impact Statement for the Construction and Operation of an Independent Spent Fuel Storage Installation on the Reservation of the Skull Valley Band of Goshute Indians and the Related Transportation Facility in Tooele County, Utah, NUREG-1714 (Dec. 2001), at 7-1 to 7-6 (ML020150217) (site selection process entailed evaluation of thirty-eight potential sites across fifteen states) (Private Fuel Storage EIS).

<sup>187</sup> AFES Petition at 22.

<sup>188</sup> *Id.*

<sup>189</sup> *Id.*

<sup>190</sup> LBP-19-4, 89 NRC at 456.

Holtec's environmental justice analysis was insufficient because it did not include "an effective scoping process and an independent review of the impact—including the cumulative impact—of the site on minority and low-income populations along the border."<sup>191</sup> But AFES provides no further information in support of that position, which the Board rejected. This is insufficient to sustain an appeal, and we find no error in the Board's decision to deny the admission of proposed Contention 2.

### **3. AFES Contention 3: Community Support**

AFES's proposed Contention 3 claimed that there is no factual basis for Holtec's assertions in its ER that there is community support for the project.<sup>192</sup> Although AFES conceded that community support is not normally material to the findings NRC must make to issue a license, it argued that it should nevertheless be considered material in this case because Holtec had referred to community support in its siting analysis.

The Board ruled the contention inadmissible "because the issue of public support for the proposed facility is not material to the findings the NRC must make in this licensing proceeding," and "[a]ssertion of community support or opposition in a license application does not lend any weight to the environmental justice analysis to be conducted by the applicant."<sup>193</sup>

On appeal, AFES argues that proposed Contention 1 and proposed Contention 3 are linked, such that if the latter is inadmissible, the former must be admitted.<sup>194</sup> It argues that if community support was an adequate reason to narrow Holtec's site selection to only the Eddy-Lea county area, then Holtec should have to show that community support actually exists. We

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<sup>191</sup> AFES Appeal at 18.

<sup>192</sup> AFES Petition at 23.

<sup>193</sup> LBP-19-4, 89 NRC at 457.

<sup>194</sup> AFES Appeal at 18-19.

disagree. Holtec explained that community support was but one of many siting factors—including seismic stability, low population density, and low flooding risk—that it used in its site selection process.<sup>195</sup> Holtec did not discuss community support in its environmental justice analysis—nor did it “substitute” community support for an environmental justice analysis, as AFES claims.<sup>196</sup> The Board reasonably evaluated the proposed contentions against the admissibility standards in our regulations, and its decisions on each were, in our view, clear, well-reasoned, and with ample support in the record and in accordance with our established precedents.

### **E. Joint Petitioners Appeal**

The Board rejected the Joint Petitioners’ hearing request on both standing and contention admissibility grounds. It found that the Joint Petitioners based their standing not on their individual members’ proximity to the proposed facility but on the members’ proximity to transportation routes, which, it held, is too remote and speculative an interest to confer standing.<sup>197</sup> Moreover, it examined each of Joint Petitioners’ fourteen proposed contentions (except two) and found them inadmissible.<sup>198</sup> Joint Petitioners have appealed the Board’s

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<sup>195</sup> ER §§ 2.3, 2.4.2; see *Holtec International’s Brief in Opposition to Alliance for Environmental Strategies’ Appeal of LBP-19-4* (June 25, 2019), at 10-11.

<sup>196</sup> See ER § 3.8.5.

<sup>197</sup> See *Petition of Don’t Waste Michigan, Citizens’ Environmental Coalition, Citizens for Alternative to Chemical Contamination, Nuclear Energy Information Service, Public Citizen, Inc., San Luis Obispo Mothers for Peace and Nuclear Issues Study Group to Intervene and Request for an Adjudicatory Hearing* (Sept. 14, 2018) (Joint Petitioners Petition); LBP-19-4, 89 NRC at 367 (citing *U.S. Department of Energy* (Plutonium Export License), CLI-04-17, 59 NRC 357, 364 n.11 (2004); *EnergySolutions, LLC* (Radioactive Waste Import/Export Licenses), CLI-11-2, 73 NRC 613, 623 (2011); *Pacific Gas and Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), LBP-02-23, 56 NRC 413, 434 (2002)).

<sup>198</sup> See LBP-19-4, 89 NRC at 426-52. Joint Petitioners’ proposed Contention 8 was withdrawn and its proposed Contention 13 was a motion to adopt Sierra Club’s contentions, which the Board rejected because a petitioner must establish standing and sponsor its own admissible contention before it can adopt another party’s contentions. *Id.* at 451.

rulings with respect to standing as well as the admissibility of eight of its proposed contentions.<sup>199</sup> As explained below, the Board correctly found that none of those eight contentions were admissible. Therefore, we need not reach the issue of Joint Petitioners' standing.

**1. Joint Petitioners Contention 1: Redaction of Historic and Cultural Properties Precludes Public Consultation and Participation**

Joint Petitioners argued in their proposed Contention 1 that Holtec violated section 106 of the National Historic Preservation Act (NHPA) by redacting 144 pages of the ER that contain information about two historic or cultural properties that will be destroyed to make way for the proposed CISF.<sup>200</sup> The Board found that Holtec did *not* redact its ER. The Board explained that the Staff, having reached a preliminary conclusion that disclosure of Appendix C to the ER might risk harm to a potential historic resource, temporarily redacted it to comply with the NHPA, which requires withholding information from the public where public disclosure could risk such harm.<sup>201</sup>

On appeal, Joint Petitioners do not dispute the Board's findings that the Staff "redacted Appendix C in accordance with the NHPA," or that the Staff would, after completing consultation with the Keeper of the National Register of Historic Places, "make available to the public any information that would not harm any potential historic properties."<sup>202</sup> Rather, Joint Petitioners explain why they did not request access to the sensitive information in Appendix C even though

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<sup>199</sup> *Notice of Appeal of LBP-19-4 by Petitioners Don't Waste Michigan, Citizens' Environmental Coalition, Citizens for Alternatives to Chemical Contamination, Nuclear Energy Information Service, Public Citizen, Inc., San Louis Obispo Mothers for Peace and Nuclear Issues Study Group, and Brief in Support of Appeal* (June 3, 2019) (Joint Petitioners Appeal).

<sup>200</sup> See Joint Petitioners Petition at 27-31.

<sup>201</sup> LBP-19-4, 89 NRC at 427; see also 54 U.S.C. § 307103(a) (requiring an agency to withhold information that may cause harm to a historic place).

<sup>202</sup> LBP-19-4, 89 NRC at 427.



they had the opportunity to do so.<sup>203</sup> That explanation has no bearing on whether the Board abused its discretion or otherwise committed an error in denying the contention. We therefore see no basis to disturb the Board's ruling that proposed Contention 1 was inadmissible.

## **2. Joint Petitioners Contention 2: Insufficient Assurance of Financing**

Joint Petitioners argued in proposed Contention 2 that Holtec cannot provide reasonable assurance that it has or will obtain the necessary funds to build, operate, and decommission the CISF.<sup>204</sup> Joint Petitioners argued that Holtec's application "states that it will solely finance the CISF from internal resources, but inconsistently states at the same time that it must have definite contractual arrangements with the U.S. DOE and the outside funding that would come with those arrangements in order to undertake the CISF."<sup>205</sup> Therefore, Joint Petitioners argued, Holtec's financial assurance depends on contracts that are not lawful.<sup>206</sup>

Joint Petitioners moved to amend their contention twice. The first amendment responded to Holtec's revision of the application to provide that nuclear power plant owners might be its customers and argued that the application is unlawful until all references to DOE are stricken from it.<sup>207</sup> The Board allowed the first amendment but rejected the substance of the claim.<sup>208</sup> Joint Petitioners do not appeal that ruling.

Joint Petitioners attempted to amend the contention a second time after Holtec's counsel conceded at oral argument on January 24, 2019, that DOE cannot currently contract with Holtec

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<sup>203</sup> See Joint Petitioners Appeal at 20-21; LBP-19-4, 89 NRC at 427.

<sup>204</sup> See Joint Petitioners Petition at 31-36.

<sup>205</sup> *Id.* at 32.

<sup>206</sup> *Id.* at 32-33.

<sup>207</sup> *Motion by [Joint Petitioners] to Amend Their Contention 2 Regarding Federal Ownership of Spent Fuel in the Holtec International Revised License Application*, (Feb. 6, 2019) at 8.

<sup>208</sup> LBP-19-4, 89 NRC at 428-29.

to store nuclear power companies' spent fuel.<sup>209</sup> The Board denied Joint Petitioners' second requested amendment because it sought to add arguments that could have been submitted with the original petition.<sup>210</sup> The Board found the second requested amendment was therefore not based upon new information.<sup>211</sup> Accordingly, the Board denied the amendment request because it did not satisfy the requirements for contentions filed after the deadline set forth in 10 C.F.R. § 2.309(c)(1).

The Board turned next to the timely aspects of proposed Contention 2, which claimed that Holtec would not have sufficient funds to build, operate, and decommission the CISF because its funding plans depended on illegal contracts with DOE. The Board found that while Holtec would prefer that Congress change the law to permit a contract with DOE, Holtec would attempt to negotiate storage contracts with nuclear power plant owners.<sup>212</sup> The Board also found that Holtec would not begin construction until it has sufficient contracts established.<sup>213</sup> The Board determined that an evidentiary hearing on Holtec's intent would not be useful and found Joint Petitioners' proposed Contention 2 inadmissible for failure to raise a genuine dispute with the application.<sup>214</sup>

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<sup>209</sup> See *Motion of [Joint Petitioners] to Amend Their Contention 2 Regarding Holtec's Proposed Means of Financing the Consolidated Interim Storage Facility* (Feb. 25, 2019) (Joint Petitioners Second Motion to Amend).

<sup>210</sup> LBP-19-4, 89 NRC at 429-432.

<sup>211</sup> *Id.* at 430. The Board reached its decision after analyzing the sworn declaration of Joint Petitioners' expert, which was submitted in support of the motion to amend proposed Contention 2. See *id.* at 429-32. The Board found the declaration "fails to analyze any specific provision in Holtec's application" and included "virtually nothing that purports to relate directly to Holtec counsel's January 24, 2019 concession." *Id.* at 430.

<sup>212</sup> *Id.* at 433.

<sup>213</sup> *Id.*

<sup>214</sup> *Id.*

The Board further rejected Joint Petitioners' argument that Holtec must provide financial assurance for periods beyond the license term. Joint Petitioners argued that 10 C.F.R. § 72.22(e) requires that Holtec "must possess the necessary funds, have reasonable assurance of obtaining the necessary funds, or by a combination of the two, have the funds to undertake the CISF as a 20-year storage-construction program, *and to operate it securely for 100 years total.*"<sup>215</sup> The claim appeared again in Joint Petitioners' second motion to amend proposed Contention 2, which cited the AEA and our financial assurance regulations at 10 C.F.R. § 72.22(e) for the argument that "Holtec has not adequately estimated the operating costs over the planned life of the CISF."<sup>216</sup> The Board rejected the claim and noted that "Joint Petitioners' claims about financial assurances for later phases or for storage beyond the license term are . . . outside the scope of this proceeding" and thus, inadmissible.<sup>217</sup>

On appeal, Joint Petitioners argue that this ruling improperly "dispense[d] with full and thorough consideration of all aspects of the Holtec CISF plan under NEPA to a later time."<sup>218</sup> This NEPA argument is raised for the first time on appeal and is therefore untimely.<sup>219</sup> In addition, Joint Petitioners do not provide legal or factual support for this argument. Joint Petitioners cite no regulation, case, or other legal authority suggesting NEPA requires Holtec to provide more financial assurance information than it did nor do they point to any part of Holtec's ER as inadequate. In fact, Holtec's ER includes an analysis of the environmental effects expected from all twenty phases of its planned CISF activities, which undercuts Joint

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<sup>215</sup> Joint Petitioners Petition at 34 (emphasis added).

<sup>216</sup> Joint Petitioners Second Motion to Amend, Encl. at 10-11.

<sup>217</sup> LBP-19-4, 89 NRC at 432.

<sup>218</sup> Joint Petitioners Appeal at 22.

<sup>219</sup> See *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-1, 43 NRC 235, 260 (1996).

Petitioners' argument that dismissal of proposed Contention 2 improperly avoids consideration of reasonably foreseeable environmental impacts associated with potential future phases of the CISF project.<sup>220</sup>

Our Part 72 regulations govern the financial assurance information Holtec must include in its CISF application. Holtec must provide "information sufficient to demonstrate to the Commission the financial qualification of the applicant to carry out . . . the activities for which the license is sought."<sup>221</sup> The Board found that Holtec had provided financial assurance information for the first phase of the CISF project—the phase involving "activities for which the license is sought"—and that the information was not genuinely disputed by proposed Contention 2.<sup>222</sup>

While Holtec anticipates that there may be future, additional phases of its project, each phase would require a license amendment. Any application to amend the license to expand the capacity or extend the term of the license would in turn require updated financial assurance information. We therefore affirm the Board's dismissal of proposed Contention 2.

### **3. *Joint Petitioners Contention 3: Underestimation of Low-Level Radioactive Waste Volume***

Joint Petitioners' proposed Contention 3 asserted that Holtec's ER provides "a seriously inaccurate picture of the true costs of constructing, operating, and decommissioning" the proposed CISF because it grossly underestimates the amount of low-level radioactive waste (LLRW) that the project will generate.<sup>223</sup> Specifically, proposed Contention 3 alleged the ER was deficient because it does not consider that the tons of concrete used at the site for

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<sup>220</sup> See ER §§ 1.0, 4.0.

<sup>221</sup> 10 C.F.R. § 72.22(e).

<sup>222</sup> *Id.*

<sup>223</sup> Joint Petitioners Petition at 36-37.

foundations and casks will become “radioactively activated” and that “replacement of the canisters themselves during the operational life of the CISF” will generate LLRW.<sup>224</sup>

In response to proposed Contention 3, both the Staff and Holtec argued that Joint Petitioners had not offered any specific facts or expert opinion to support the contention. Holtec explained that the storage casks and pads are not expected to have any residual radioactive contamination because (a) the spent nuclear fuel canisters will remain sealed while in the CISF; (b) the canisters will be surveyed at the originating reactor and again when they arrive at the CISF to ensure that there is no radiological contamination; and (c) the neutron flux levels generated by the spent nuclear fuel would be so low that any activation of the storage casks and pads would produce negligible radioactivity.<sup>225</sup> The Staff argued that the Joint Petitioners had offered no facts or expert opinion to support their “claims that millions of tons of material will be activated” and become LLRW.<sup>226</sup> With respect to the canisters, Holtec pointed out that the packaged canisters will be delivered to Holtec’s site, ready for storage, and that fuel will be transported off-site in the same canister when a repository becomes available, such that no canisters would be opened at the facility.<sup>227</sup> The Board agreed with Holtec and the Staff and

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<sup>224</sup> *Id.* at 36.

<sup>225</sup> *Holtec International’s Answer Opposing the Don’t Waste Michigan, Citizens’ Environmental Coalition, Citizens for Alternatives to Chemical Contamination, Nuclear Energy Information Service, Public Citizen, Inc., San Luis Obispo Mothers for Peace, and Nuclear Issues Study Group Petition to Intervene and Request for an Adjudicatory Hearing on Holtec International’s HI-STORE Consolidated Interim Storage Facility Application* (Oct. 9, 2018), at 41 (Holtec Answer to Joint Petitioners) (citing ER § 4.12.2).

<sup>226</sup> Staff Consolidated Response at 36.

<sup>227</sup> Holtec Answer to Joint Petitioners at 41 (citing ER § 4.12.2). See also ER § 4.12.4 (stating that all canisters of SNF would be removed and transported to a permanent repository prior to decontamination and decommissioning of the facility).

rejected proposed Contention 3 because Joint Petitioners had not met their burden in proffering facts or expert opinion supporting their claims.<sup>228</sup>

The Board also found that Holtec had addressed the impacts from spent fuel repackaging and cask disposal by appropriately relying on the description of those impacts contained in the Continued Storage GEIS, which is incorporated by reference into 10 C.F.R. § 51.23.<sup>229</sup> Holtec referred to the Continued Storage GEIS in its discussion of environmental impacts of decontamination and decommissioning.<sup>230</sup> The Continued Storage GEIS found that the potential environmental impacts from LLRW from decommissioning a large scale ISFSI after long term storage would be “small.”<sup>231</sup> The Board therefore found that aspects of proposed Contention 3 dealing with “the topics of repackaging of spent fuel and disposal of the spent fuel casks after repackaging” were an impermissible attack on the NRC’s regulations under 10 C.F.R. § 2.335, because they challenged the adequacy of ISFSI decommissioning analyses contained in the Continued Storage GEIS.<sup>232</sup>

On appeal, Joint Petitioners assert there exists “evidence of significant volumes of unremediable concrete, soil and canisters,” but do not point to any specific evidence.<sup>233</sup> Joint Petitioners claim that during oral argument on contention admissibility the Board unreasonably “required [Joint Petitioners] to explain why [the concrete] cannot all be decontaminated.”<sup>234</sup> But it does not appear to us that the Board imposed an undue burden on the Joint Petitioners.

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<sup>228</sup> LBP-19-4, 89 NRC at 434.

<sup>229</sup> *Id.* at 435 (citing Continued Storage GEIS at 5-48).

<sup>230</sup> See ER § 4.9.5.

<sup>231</sup> See Continued Storage GEIS at 5-48.

<sup>232</sup> LBP-19-4, 89 NRC at 435.

<sup>233</sup> Joint Petitioners Appeal at 23.

<sup>234</sup> *Id.*

Rather, the Board asked whether Joint Petitioners had any factual support for their assertions that concrete at the CISF would become activated or that concrete decontamination would not be possible.<sup>235</sup> In response, counsel for Joint Petitioners offered only “common sense” as an explanation for how concrete would become radioactive and took no position on whether decontamination of concrete would be possible.<sup>236</sup> The Board reasonably found that these unsupported assertions were insufficient to support an admissible contention.

Joint Petitioners further argue that the Board erred in relying on the Continued Storage Rule because the rule “does not alter any requirements to consider environmental impacts of spent fuel storage during the term . . . of a license for an ISFSI in an ISFSI licensing proceeding.”<sup>237</sup> However, with respect to the environmental effects during the life of the CISF, the Board found that Joint Petitioners had not proffered any evidentiary support for their claim that the concrete pads and casks will become contaminated or for their claim that the canisters will need to be replaced during the operating life of the facility.<sup>238</sup> The portion of the Continued Storage GEIS that the Board discusses refers to the expected consequences of temporary storage in a large scale ISFSI—a facility like the proposed facility—and found that the expected consequences of replacing concrete pads, casks, canisters and the DTS would be small.<sup>239</sup> Therefore, even assuming these materials did need to be replaced during the life of the proposed facility, the impacts have been studied and set forth in the Continued Storage

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<sup>235</sup> Tr. at 161-62; see 10 C.F.R. § 2.309(f)(5).

<sup>236</sup> Tr. at 161-62. In answering the Board’s questions, counsel for Joint Petitioners stated that it is arguing that “the initial quantification [of LLRW] is tremendously off base,” but provided no factual or expert support for that assertion. *Id.*

<sup>237</sup> Joint Petitioners Appeal at 24.

<sup>238</sup> LBP-19-4, 89 NRC at 434.

<sup>239</sup> *Id.* at 435 (citing Continued Storage GEIS at 5-48).

GEIS, which are codified in the Continued Storage Rule. Joint Petitioners' appeal provides no basis to overturn those Board findings.

In short, the Board found proposed Contention 3 failed to include support for its assertions of inadequacy regarding Holtec's evaluation of LLRW impacts. Joint Petitioners' appeal does not dispute the Board's finding that the contention lacked evidentiary support. Accordingly, we affirm the Board's rejection of proposed Contention 3.

**4. *Joint Petitioners Contention 4: Holtec Does Not Qualify For Continued Storage GEIS Presumptions***

Joint Petitioners argued in proposed Contention 4 that Holtec cannot rely on the Continued Storage GEIS's generic environmental analysis of transportation and operational accidents because the proposed CISF differs from the type of facilities contemplated by the Continued Storage GEIS, particularly with respect to its lack of a DTS.<sup>240</sup> The Board dismissed proposed Contention 4, ruling that Holtec's ER does not rely on the Continued Storage GEIS to avoid discussion of site-specific accidents but rather "contains a site-specific impact analysis for the period of the proposed activity" as the GEIS anticipates.<sup>241</sup> The Board further found that "[n]either the Continued Storage GEIS nor NRC regulations require an analysis of a [DTS] at this time"; therefore, proposed Contention 4 failed to raise a genuine dispute with the application on a material issue of law or fact.<sup>242</sup>

On appeal, Joint Petitioners do not dispute the Board's finding that Holtec's ER addresses site-specific environmental effects (including effects from transportation and

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<sup>240</sup> Joint Petitioners Petition at 46-49. Joint Petitioners provided three other bases for Contention 4, each of which the Board addressed in denying its admission. See LBP-19-4, 89 NRC at 437. Joint Petitioners raise none of those three bases on appeal. See Joint Petitioners Appeal at 24-25.

<sup>241</sup> LBP-19-4, 89 NRC at 437.

<sup>242</sup> *Id.*



operational accidents) during the period of expected facility construction and operation; rather, they continue to argue that the CISF must have a DTS during the current license period. Joint Petitioners argue that “Holtec cannot consider the probability of leaking or contaminated canisters or casks arriving at the CISF to be zero; it cannot discount the need for a DTS well before the end of the first 100 years of operations for emergencies, remediation and repackaging.”<sup>243</sup> Joint Petitioners assert the Board’s dismissal of proposed Contention 4 was wrong because “the ASLB may not segment consideration of environmental effects,” and “Holtec may not avoid NEPA or AEA . . . scrutiny of its decision to not have a [DTS] available before the end of the first 100 years of operation because of the Continued Storage GEIS.”<sup>244</sup>

The Continued Storage GEIS generically analyzes the environmental impacts of spent fuel storage after the operational life of a reactor or ISFSI in the short-term (60 years after cessation of operations), long-term (60 to 100 years), and indefinite timeframes.<sup>245</sup> It generically assumes that a DTS would be built “in the long-term and indefinite timeframes,” which occur beyond the initial 40-year license term for the Holtec CISF, so that “the environmental impacts of constructing a reference DTS” can be considered, thus providing a “complete picture of the environmental impacts of continued storage.”<sup>246</sup> But as the Board correctly held, this assumption does not impose a requirement that any particular facility build a DTS.

We agree with the Board that if the proposed CISF is licensed, built, and operated and Holtec later decides to construct and operate a DTS, a separate licensing action would be

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<sup>243</sup> Joint Petitioners Appeal at 25.

<sup>244</sup> Joint Petitioners Appeal at 24. Joint Petitioners’ argument regarding NEPA segmentation is new on appeal and will not, therefore, be considered. See *USEC Inc. (American Centrifuge Plant)*, CLI-06-10, 63 NRC 451, 458 (2006).

<sup>245</sup> Continued Storage GEIS § 1.8.2.

<sup>246</sup> *Id.* § 2.1.4.

required, which would entail additional environmental review.<sup>247</sup> For now, Holtec has evaluated the site-specific environmental effects associated with the construction and operation of the proposed CISF (as required by the Continued Storage Rule). Joint Petitioners do not challenge that facility- and site-specific evaluation of the effects of transportation and operational accidents.<sup>248</sup> We thus find no error in the Board's conclusion that proposed Contention 4 stated no genuine dispute with the application and was therefore inadmissible.

**5. Joint Petitioners Contention 7: Holtec's "Start Clean/Stay Clean" Policy Is Unlawful and Directly Causes a Public Health Threat**

In their proposed Contention 7, Joint Petitioners argued that Holtec's "start clean/stay clean" policy is illegal and unsafe because "leaky and/or contaminated canisters" might arrive at the proposed CISF, which Holtec "intends to return . . . to their points of origin," thus risking "immediate danger to the corridor communities through which they would travel back to their nuclear power plant or site of origin, likely violating numerous additional NRC and DOT regulations."<sup>249</sup>

Holtec's answer explained that its "start clean/stay clean" plan would mean that a defective canister would be shipped back in an approved transportation cask, which is lawful as long as applicable radiation standards are met.<sup>250</sup> Holtec also pointed to our decision in *Private Fuel Storage*, wherein we noted that a similar contention's "assertion that shipping [a defective] canister back inside the approved transportation casks is not safe can be seen as an

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<sup>247</sup> LBP-19-4, 89 NRC at 437.

<sup>248</sup> See ER §§ 4.9.3.2, 4.13.2. Holtec assumes for purposes of its environmental analysis that "[spent nuclear fuel] could be stored at the CIS Facility for approximately 120 years (40 years for initial licensing plus 80 years for life extensions)," which "could be reduced if a final geologic repository is licensed and operated . . .". ER § 1.0.

<sup>249</sup> Joint Petitioners Petition at 61.

<sup>250</sup> Holtec Answer to Joint Petitioners at 63-64 (citing 10 C.F.R. § 71.47).

impermissible attack on NRC regulations and rulemaking-related generic determinations that the transportation cask is sufficient to prevent the leakage of any radioactive material.”<sup>251</sup>

The Board found the contention lacked factual or expert support, specifically finding that Joint Petitioners had not shown:

(1) how the spent fuel, when packaged at the reactor site, would leave the site leaking or damaged notwithstanding NRC-approved quality assurance programs; (2) how the spent fuel canister, within its transport overpack cask, would become credibly damaged in an accident scenario that results in an exceedance of dose rates while in transit; and (3) how the sequestration sleeve, as outlined in Holtec’s SAR at the time the petitions were due in this proceeding, is an inadequate remedy should the cask and canister somehow become damaged.<sup>252</sup>

The Board agreed that our decision in *Private Fuel Storage* would require the proponent of a similar contention to posit a credible scenario where a canister is breached in transport.<sup>253</sup>

On appeal, Joint Petitioners attempt to distinguish *Private Fuel Storage* by suggesting that accidental canister breaches should be considered credible in this case because Holtec’s “start clean/stay clean” policy necessarily supposes some breaches will occur.<sup>254</sup> The Board already considered and rejected that argument, however, noting that *Private Fuel Storage* (like this case) also involved a policy “to ship back a leaking or defective canister to its point of origin,” and that the petitioner in that case (like this case) had failed to contest “those very programs that provide that a transportation accident or breach of canister is not credible.”<sup>255</sup>

We find that the Board appropriately relied on *Private Fuel Storage* in finding this contention inadmissible. Mere existence of Holtec’s “start clean/stay clean” policy is not

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<sup>251</sup> *Id.* at 63 (citing *Private Fuel Storage*, CLI-04-22, 60 NRC at 138 n.53).

<sup>252</sup> LBP-19-4, 89 NRC at 444.

<sup>253</sup> *Id.* (citing *Private Fuel Storage*, CLI-04-22, 60 NRC at 136-37).

<sup>254</sup> Joint Petitioners Appeal at 26.

<sup>255</sup> LBP-19-4, 89 NRC at 444.

sufficient to undermine the requirements and safety analyses that have generically established the integrity of approved spent fuel canister designs.

**6. *Joint Petitioners Contention 9: Incomplete and Inadequate Disclosure of Transportation Routes***

Joint Petitioners argued in proposed Contention 9 that Holtec should disclose the transportation routes for the thousands of cask deliveries that are anticipated over the first twenty years of Holtec's proposed license.<sup>256</sup> According to Joint Petitioners, the application only shows two probable routes, one from the site of the former Maine Yankee plant and another from the former San Onofre Nuclear Generating Station in California.<sup>257</sup> Joint Petitioners argued that complete transportation information is necessary for their own participation in the NEPA process as well as for emergency response officials to understand the scope of Holtec's proposal.<sup>258</sup>

The Board found that Joint Petitioners failed to raise a genuine dispute with the application because they did not demonstrate that either NEPA or our regulations require a specific assessment of possible transportation routes.<sup>259</sup> The Board found that Holtec's ER evaluated three representative routes—one from San Onofre to the proposed CISF, one from Maine Yankee to the proposed CISF, and one from the proposed CISF to Yucca Mountain—and that "the use of representative routes is in keeping with past NRC practice to evaluate transportation impacts."<sup>260</sup> The Board further found Joint Petitioners' concerns that emergency

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<sup>256</sup> Joint Petitioners Petition at 66-68.

<sup>257</sup> *Id.* at 66.

<sup>258</sup> *Id.* at 67.

<sup>259</sup> LBP-19-4, 89 NRC at 445.

<sup>260</sup> *Id.* at 446 (citing Continued Storage GEIS at 5-49 to 5-54; Private Fuel Storage EIS at 5-39; 10 C.F.R. § 51.52, tbl. S-4).

response officials would need disclosure of transportation routes to be outside the scope of this licensing proceeding. The Board explained that the NRC reviews and approves spent nuclear fuel transportation routes separately, in conjunction with the Department of Transportation, including consultation with applicable States or Tribes, and coordination with local law enforcement and emergency responders.<sup>261</sup>

On appeal, Joint Petitioners largely repeat their arguments before the Board.<sup>262</sup> However, the Board correctly found that determining exact transportation routes is an issue outside the scope of this licensing proceeding. Furthermore, the use of representative routes in an environmental-impacts analysis to address the uncertainty of actual, future spent fuel transportation routes is a well-established regulatory approach, the foundations of which Joint Petitioners have not challenged.<sup>263</sup> Therefore, we affirm the Board's decision to deny admission of proposed Contention 9.

#### **7. Joint Petitioners Contention 11: NEPA Requires Significant Security Risk Analysis**

Joint Petitioners asserted in proposed Contention 11 that Holtec's application should include an analysis of the environmental impacts resulting from a terrorist attack on the

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<sup>261</sup> *Id.*; see also 10 C.F.R. §§ 71.97, 73.37 (requiring advanced planning and coordination of spent fuel shipments with State and Tribal officials).

<sup>262</sup> Joint Petitioners Appeal at 27. Joint Petitioners also raise a new argument on appeal that the Board's ruling effectively "segments a single project into smaller projects" by "[s]eparating consideration of the transportation component from the storage component," and thus "defies effective analysis and public understanding as required by NEPA." *Id.* That argument, which does not account for the evaluation of transportation impacts contained in ER section 4.9, is raised for the first time on appeal and therefore will not be considered. See *South Carolina Electric & Gas Company* (Virgil C. Summer Nuclear Station, Units 2 and 3), CLI-10-1, 71 NRC 1, 5 (2010).

<sup>263</sup> See, e.g., Continued Storage GEIS § 5.16 (evaluating impacts of spent fuel transportation to an away-from-reactor ISFSI based on shipments over a representative route); Private Fuel Storage EIS § 5.7.2 (selecting one of the longest possible routes passing through some of the most populated regions of the country).

proposed CISF and on spent nuclear fuel shipments to the CISF.<sup>264</sup> The Board found the contention inadmissible based on the policy decision we expressed in *AmerGen Energy*, which was upheld by the United States Court of Appeals for the Third Circuit.<sup>265</sup> In *AmerGen Energy*, we held that terrorist attacks are too far removed from the natural or expected consequences of agency action to require environmental analysis in an NRC licensing proceeding.<sup>266</sup> In *AmerGen Energy*, we specifically declined to follow a contrary ruling from the United States Court of Appeals for the Ninth Circuit for any facility located outside that Circuit.<sup>267</sup>

The Board found that because the proposed CISF would be in New Mexico, which is not within the Ninth Circuit, no terrorist analysis under NEPA is required.<sup>268</sup>

On appeal, Joint Petitioners reassert that “the ER should contain an analysis of terrorist attacks as an environmental impact” and cite the Ninth Circuit’s decision that we declined to follow in *AmerGen Energy*.<sup>269</sup> But Joint Petitioners do not articulate a reason for us to reconsider our policy here. The Board correctly applied our prior rulings, and we affirm its decision to deny admission of proposed Contention 11.

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<sup>264</sup> Joint Petitioners Petition at 70-88. Proposed Contention 11 included twenty-eight “sub-contentions” that the Board found “[fell] short of the Commission’s contention admissibility standards.” LBP-19-4, 89 NRC 448-49. Joint Petitioners did not appeal that ruling.

<sup>265</sup> LBP-19-4, 89 NRC 448; see *AmerGen Energy Company, LLC* (Oyster Creek Nuclear Generating Station), CLI-07-8, 65 NRC 124 (2007), *review denied*, *N. J. Dep’t of Env’tl. Prot. v. NRC*, 561 F.3d 132 (3d Cir. 2009).

<sup>266</sup> *AmerGen Energy*, CLI-07-8, 65 NRC at 129.

<sup>267</sup> *Id.* at 128-29 (declining to follow *San Luis Obispo Mothers for Peace v. NRC*, 449 F.3d 1016 (9th Cir. 2006)).

<sup>268</sup> LBP-19-4, 89 NRC at 448 (observing that New Mexico is in the Tenth Circuit).

<sup>269</sup> Joint Petitioners Appeal at 28.

## F. Fasken Motion to Admit New Contention

On August 1, 2019, Fasken filed a motion for leave to file a new contention claiming that Holtec does not control mineral rights beneath the proposed site as represented in its application.<sup>270</sup> Fasken bases its contention on a June 19, 2019, letter from the State of New Mexico Commissioner of Public Lands to Krishna Singh, President and CEO of Holtec, a copy of which was sent to NRC and served on the parties in this proceeding on July 2, 2019.<sup>271</sup> Both the Staff and Holtec opposed the motion on various grounds, including that Fasken had failed to file a motion to reopen the proceeding or address the standards for doing so.<sup>272</sup> Thereafter, Fasken filed a motion to reopen, but it subsequently withdrew that motion without withdrawing its initial motion for leave to admit a new contention.<sup>273</sup>

Although we could determine the admissibility of Fasken's new proposed contention ourselves, we decline to do so in this instance. The Board is the agency's expert in contention admissibility, and typically, the parties have the opportunity for oral argument before the Board on matters of contention admissibility. We therefore remand the contention to the Board for consideration of the contention's admissibility, timeliness, and capacity to meet the reopening standards.

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<sup>270</sup> *Fasken Oil and Ranch and Permian Basin Land and Royalty Owners Motion for Leave to File a New Contention* (Aug. 1, 2019) (Fasken Motion for New Contention).

<sup>271</sup> Letter from Stephanie Richard, New Mexico Public Lands Commissioner, to Krishna Singh, President of Holtec International (June 19, 2019) (ML19183A429) (attached to Fasken Motion for New Contention as Ex. 5) (New Mexico Letter).

<sup>272</sup> See *NRC Staff Answer in Opposition to Fasken Oil and Ranch, Ltd. and Permian Basin Land and Royalty Owners' Motion to File New Contention* (Aug. 26, 2019), at 9-10 (Staff New Contention Response); *Holtec International's Answer Opposing Fasken's Late-Filed Motion to File a New Contention* (Aug. 26, 2019), at 12-13 (Holtec New Contention Response).

<sup>273</sup> See *Fasken Oil and Ranch and Permian Basin Land and Royalty Owners Motion for Leave to Reopen and Incorporate Contention Filed August 1, 2019* (Sept. 3, 2019); *Fasken and PBLRO's Withdrawal of Their "Motion for Leave to Reopen and Incorporate Contention Filed August 1, 2019"* (Sept. 12, 2019); *Holtec International's Answer Opposing Fasken's Motion for Leave to Reopen and Incorporate Contention Filed August 1, 2019* (Sept. 13, 2019).

**III. CONCLUSION**

For the foregoing reasons, we *affirm in part* and *reverse* and *remand in part* the Board's ruling denying the petitions. We further *remand* to the Board Fasken's new proposed contention and Sierra Club Contention 30 for determination of their admissibility.

IT IS SO ORDERED.

For the Commission

**NRC SEAL**

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Annette L. Vietti-Cook  
Secretary of the Commission

Dated at Rockville, Maryland,  
this 23rd day of April 2020.



### **Chairman Svinicki, Dissenting in Part**

I join my colleagues' disposition of the many appeals in this proceeding with one exception: the majority's decision to remand portions of Sierra Club's Contentions 15, 16, 17, and 19 (the "groundwater contentions"). Generally, these contentions asserted that Holtec inadequately characterized groundwater on site and therefore the environmental impacts could be greater than acknowledged should the storage canisters become compromised and contaminate the groundwater.<sup>1</sup> However, the Board concluded that challenges to the integrity of the storage canisters effectively sought to litigate our regulations certifying the designs of those canisters and were therefore outside the scope of this proceeding.<sup>2</sup> The majority does not disturb this finding, but instead remands the limited question of whether these contentions could stand as challenges to Holtec's site groundwater characterization on their own.<sup>3</sup>

In my view, the Board correctly dismissed the entirety of the groundwater contentions upon concluding that Sierra Club's claim that the canisters could leak was inadmissible. Without that component, the groundwater contentions no longer challenge the discussion of environmental impacts in the application and therefore fail to raise a material, genuine dispute with the application.<sup>4</sup> While I would certainly disagree with an open-ended remand to the Board on this issue, here the majority has instead focused this remand on the material (although in my view already resolved) issue of whether the challenges to groundwater characterization could impact the analysis of environmental impacts in this proceeding. On balance, however, I find even this narrow remand to be an exercise in elevating form over substance.

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<sup>1</sup> Sierra Club Petition at 60-67.

<sup>2</sup> LBP-19-4, 89 NRC at 404-05.

<sup>3</sup> Order at 29.

<sup>4</sup> 10 C.F.R. § 2.309(f)(1)(iv), (vi).

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of )  
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)  
HOLTEC INTERNATIONAL ) Docket No. 72-1051-ISFSI  
)  
)  
(HI-STORE Consolidated Interim Storage )  
Facility) )

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing **COMMISSION MEMORANDUM AND ORDER (CLI-20-04)**, have been served upon the following persons by Electronic Information Exchange (EIE).

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Holtec International - Docket No. 72-1051-ISFSI  
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Holtec International - Docket No. 72-1051-ISFSI  
**COMMISSION MEMORANDUM AND ORDER (CLI-20-04)**

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\* Eddy County not served due to no representative for the County assigned at the time of Mr. Rudometkin's departure.

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Office of the Secretary of the Commission

Dated at Rockville, Maryland,  
this 23<sup>rd</sup> day of April 2020