

No. 25-

IN THE
Supreme Court of the United States

BEYOND NUCLEAR, INC.,

Petitioner,

v.

UNITED STATES NUCLEAR
REGULATORY COMMISSION AND
THE UNITED STATES OF AMERICA,

Respondents.

ON PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES
COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

**PETITION FOR A WRIT OF CERTIORARI
AND APPENDIX VOLUME I OF II
(Pages 1a-316a)**

DIANE CURRAN
HARMON, CURRAN, SPIELBERG
& EISENBERG, LLP
1725 DeSales Street NW,
Suite 500
Washington, D.C. 20036

MINDY GOLDSTEIN
Counsel of Record
TURNER ENVIRONMENTAL
LAW CLINIC
EMORY UNIVERSITY
SCHOOL OF LAW
1301 Clifton Road
Atlanta, GA 30322
(404) 727-3432
magolds@emory.edu

Counsel for Petitioner

131680



COUNSEL PRESS

(800) 274-3321 • (800) 359-6859

QUESTION PRESENTED

Do the Administrative Procedure Act and the constitutional separation of powers doctrine prohibit an agency from issuing a license conditioned on Congress' anticipated wholesale reversal of an unequivocal statutory prohibition, and in turn, using the anticipatory nature of such condition to shield that license from judicial review?

PARTIES TO THE PROCEEDING

In addition to the parties listed on the cover, Holtec International (“Holtec”) was party as an intervenor-respondent in the proceeding below.¹

1. The Court of Appeals consolidated the case below (No. 20-1187) with Nos. 20-1225, 21-1104, and 21-1147. Petitioners in the consolidated proceeding also included Don’t Waste Michigan, Citizens for Alternatives to Chemical Contamination, San Luis Obispo Mothers for Peace, Nuclear Energy Information Service, Citizens’ Environmental Coalition, Nuclear Issues Study Group, Sierra Club, Fasken Land and Minerals Ltd., and Permian Basin Land and Royalty Owners. Those parties do not petition for a writ of certiorari from this Court.

CORPORATE DISCLOSURE STATEMENT

In accordance with Supreme Court Rule 29.6, Petitioner Beyond Nuclear, Inc. (“Beyond Nuclear” or “Petitioner”) states that it has no parent corporation and that no publicly held corporation owns ten percent or greater interest in Beyond Nuclear.

RELATED PROCEEDINGS

A license issued by the Nuclear Regulatory Commission (“NRC”) and containing a condition similar to the license condition at issue in this case was reviewed by the Supreme Court in *Nuclear Regul. Comm’n v. Texas*, 605 U.S. 665 (2025) (“*Texas*”). The Court did not reach the merits of that case, instead dismissing it on procedural grounds. *Id.* at 669. The procedural shortcomings in *Texas* are not at issue here; Petitioner attempted to intervene in the NRC’s licensing proceeding and timely filed its petition for review pursuant to the Hobbs Act, 28 U.S.C. §§ 2341–2353. *See Beyond Nuclear, Inc. v. U.S. Nuclear Regul. Comm’n*, 113 F.4th 956, 962 (D.C. Cir. 2024) (App., *infra*, 4a-6a).²

2. Moreover, the merits issue raised in *Texas* differs from the one raised here. In *Texas*, the Court was asked to consider, as a general matter, whether the NRC could issue a license to a private party for the interim storage of nuclear waste. Here, it is assumed the NRC has such authority. This case turns on whether that license can conditionally allow interim storage of *federally-owned* nuclear waste, an activity the licensee, NRC, and Petitioner all agree is prohibited by the Nuclear Waste Policy Act, 42 U.S.C. §§ 10101–10270.

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PETITION FOR A WRIT OF CERTIORARI

Beyond Nuclear, a nonprofit, nonpartisan membership organization advocating for the safe and lawful disposal of nuclear waste, respectfully petitions this Court for a writ of certiorari to review the judgment of the U.S. Court of Appeals for the D.C. Circuit.

INTRODUCTION

To check administrators whose “zeal might otherwise have carried them to excesses not contemplated in legislation[,]” Congress passed the Administrative Procedure Act (“APA”) and “created safeguards even narrower than the constitutional ones, against arbitrary official encroachment on private rights.” *United States v. Morton Salt Co.*, 338 U.S. 632, 644 (1950); *see also Bowen v. Michigan Acad. of Fam. Physicians*, 476 U.S. 667, 670–671 (1986) (describing the APA as a “comprehensive rethinking of the place of administrative agencies in a regime of separate and divided powers”). These APA guardrails against agency overreach include the unequivocal prohibition of agency action that is “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” 5 U.S.C. § 706(2)(A).

They also include a guarantee of access to judicial review:

It has never been the policy of Congress to prevent the administration of its own statutes from being judicially confined to the scope of authority granted or to the objectives specified. Its policy could not be otherwise, for in such a

case statutes would in effect be blank checks drawn to the credit of some administrative officer or board.

Bowen, 476 U.S. at 671 (quoting S.Rep. No. 752, 79th Cong., 1st Sess., 26 (1954)); *see also Abbott Lab’ys v. Gardner*, 387 U.S. 136, 140 (1967) (the APA “embodies the basic presumption of judicial review”); *Richards v. Jefferson Cnty.*, 517 U.S. 793, 798 (1996) (recognizing the “deep-rooted tradition that everyone should have his own day in court”).

In the case below, the D.C. Circuit assisted the NRC to shatter both constitutionally-rooted APA guardrails by upholding a highly unorthodox NRC license conditionally authorizing Holtec to store federally-owned nuclear waste—conduct that the NRC concedes currently violates the Nuclear Waste Policy Act, 42 U.S.C §§ 10101–10270 (the “Nuclear Waste Policy Act” or “Act”)—if and when Congress allows such storage in the future.³ For the first time, and in direct contravention of this Court’s precedents, the D.C. Circuit thereby authorized an agency to use a license condition to create a convenience-based exception to the APA’s unambiguous requirement that agency actions must comply with the law. *Beyond Nuclear*, 113 F.4th at 964 (App., *infra*, 9a) (“[C]onditions are often

3. Holtec recently abandoned its plans to operate the licensed facility but retains its improvidently granted license. Holtec International (@holtecintl), X (formerly “Twitter”) (Oct 10, 2025), <https://x.com/holtecintl/status/1976727590531387495>. As long as Holtec retains the license, the company is free to change its mind and resume the project. Alternatively, Holtec may transfer the license to a different company or seek to build and operate its facility in a different location.

essential in light of the protracted timelines for securing a license and the need to anticipate changing conditions and regulatory shifts.”).

The court’s opinion flouts this Court’s bedrock holdings that “pleas of administrative inconvenience . . . never ‘justify departing from the statute’s clear text.’” *Corner Post, Inc. v. Bd. of Governors of the Fed. Rsrv. Sys.*, 603 U.S. 799, 823 (2024) (quoting *Niz-Chavez v. Garland*, 593 U.S. 155, 169 (2021) and *Pereira v. Sessions*, 585 U.S. 198, 217 (2018)). And by ruling that a license condition can allow future conduct that is currently unlawful, the court expanded the use of a license condition far beyond its APA-based purpose of ensuring compliance with the law. *Contrast Beyond Nuclear*, 113 F.4th at 964 (App., *infra*, 8a) (explaining that Holtec seeks a license that would “*permit* it to enter into additional customer contracts *if and when* they become lawful in the future”) (emphasis added), *with Oglala Sioux Tribe v. U.S. Nuclear Regul. Comm’n*, 45 F.4th 291, 304 (D.C. Cir. 2022) (denying consideration of the environmental impacts of a licensee’s failure to secure a legally-required waste disposal contract “because the conditions placed on [the] license *prohibit* initiating operations without first securing a disposal contract”) (emphasis added).⁴

4. Disregarding the fundamental disparity between the license condition approved in *Oglala Sioux* and the NRC license condition before it, the D.C. Circuit seized on *Oglala Sioux*’s description of license conditions as “forward-looking” to buttress its holding. *Beyond Nuclear*, 113 F.4th at 964 (App., *infra*, 9a). But the comparison has no merit: all license conditions are forward-looking in the sense that they govern future conduct by licensees. As required by the APA, the licensee’s future conduct must be based in the law of today.

Even more troubling, the D.C. Circuit affirmed the NRC's intentional manipulation of the hearing process to ensure that Petitioner would never get a "day in court" regarding the license condition. *See Abbott Lab's*, 387 U.S. at 140; *Richards*, 517 U.S. at 798. Because no party disputed the current unlawfulness of the condition, the NRC ruled Petitioner had not raised a litigable "genuine dispute of law or fact." *Beyond Nuclear*, 113 F.4th at 964 (App., *infra*, 9a) (citing *In re Holtec International*, 91 N.R.C. 167, 176 (2020) ("*Holtec Commission Decision*") (App., *infra*, 30a)). But, if and when the Nuclear Waste Policy Act is revised, the NRC ensured Holtec would not need to "file a new or amended license application for its storage facility," nor would the agency be tasked with "entertaining a fresh opportunity to request a hearing." *In re Holtec International*, 89 N.R.C. 353, 382 (2019) ("*Holtec Licensing Board Decision*") (App., *infra*, 161a), *aff'd*, 91 N.R.C. 167 (2020) (App., *infra*, App. B). The NRC tossed off the gravity of its action by dismissing, as a "useless act," a hearing on the current unlawfulness of Holtec's license condition and by declaring that "no discernable purpose" would be served by holding a hearing when the law changes. *Id.*

Thus, by upholding the NRC's ruling, the D.C. Circuit helped the agency not only to unlawfully deny Petitioner a hearing on the lawfulness of Holtec's license under current law, but also to eliminate any future opportunity to seek the "party aggrieved" status required by the Hobbs Act if and when Congress changes the law. *Texas*, 605 U.S. at 669, 674, 676–77 (citing 28 U.S.C. § 2344, 42 U.S.C. § 2239(a)(1)(A)) (establishing the jurisdictional requirements that Hobbs Act appeals must be brought within 60 days of an NRC decision in a licensing

proceeding by a “party aggrieved,” i.e. an entity who has participated in the proceeding). At that point, Holtec would be a license holder, not an applicant, and Petitioner would have no right to challenge the already-approved license condition. Instead, any deficiencies in the license would be unreviewable. 28 U.S.C. § 2344; *Safe Energy Coal. v. U.S. Nuclear Regul. Comm’n*, 866 F.2d 1473, 1477 (D.C. Cir. 1989) (citing *Heckler v. Chaney*, 470 U.S. 821 (1985), for the proposition that NRC decisions denying enforcement action are “presumptively unreviewable”). The D.C. Circuit thereby authorized the NRC to entirely avoid the APA-founded “basic presumption of judicial review.” *Abbott Lab’ys*, 387 U.S. at 140.

The D.C. Circuit’s radical departure from the fundamental principles of administrative law and the right to judicial review is not just unlawful, but harmful. If the opinion below is allowed to stand, agencies subject to the Hobbs Act,⁵ and the entities they regulate, will have a “blank check” to game the administrative system, using license conditions to sanction currently unlawful actions based on future law. *Bowen*, 476 U.S. at 671.⁶ Without

5. The Hobbs Act gives the courts of appeals exclusive jurisdiction over final orders and rules issued by the NRC and certain other federal agencies, including the Federal Communications Commission, the Department of Agriculture, the Department of Transportation, the Federal Maritime Commission, and the Surface Transportation Board. 28 U.S.C. §§ 2342(1)–2342(5).

6. As illustrated by the instant case, there is no judicially-imposed limitation to the subject matter of such an unreviewable license condition, and it could include the speculated overhaul of a statute as comprehensive and complex as the Nuclear Waste Policy Act. *See infra* note 12.

the benefit of a crystal ball, affected parties will be unable to form concrete complaints about whether today's licenses comply with the laws of tomorrow, effectively precluding administrative and judicial review. To protect against that harm, this Court should grant certiorari to restore the separation of powers between branches and prohibit agencies from ignoring statutory mandates and prohibitions based only on agency speculation about future congressional action.

OPINIONS AND ORDERS BELOW

The NRC's October 29, 2018 order (App., *infra*, App. C) denying Petitioner's motion to dismiss the licensing proceeding is unpublished. The Atomic Safety and Licensing Board's May 7, 2019 order (App., *infra*, App. E) denying Petitioner's hearing request is reported at 89 N.R.C. 353. The NRC's April 23, 2020 order (App., *infra*, App. B) affirming the Atomic Safety and Licensing Board's decision is reported at 91 N.R.C. 167. The opinion of the D.C. Circuit (App., *infra*, App. A) affirming the NRC's decision is reported at 113 F.4th 956 (D.C. Cir. 2024). The order of the D.C. Circuit denying en banc review and panel rehearing (App., *infra*, App. D) is reported at 2025 WL 2231431 (August 5, 2025).

STATEMENT OF JURISDICTION

The jurisdiction of this Court is invoked under 28 U.S.C. §§ 1254(1), 2350. The judgment of the D.C. Circuit was entered on August 27, 2024. Beyond Nuclear's timely petition for en banc review and panel rehearing to the D.C. Circuit was denied on August 5, 2025.

STATUTORY AND REGULATORY PROVISIONS INVOLVED

Relevant statutory and regulatory provisions are reproduced in the appendix. App., *infra*, App J.

STATEMENT OF THE CASE

I. Statutory and Regulatory Background

A. The Nuclear Waste Policy Act

For more than 70 years, commercial reactor licensees across the U.S. have accumulated a growing inventory of “spent” fuel, i.e., the waste product generated by irradiation of reactor fuel for energy production. Spent fuel is highly radioactive and remains dangerous to humans and their environment for thousands or millions of years, a timeframe “seemingly beyond human comprehension.” *Nuclear Energy Inst., Inc. v. Env’t Prot. Agency*, 373 F.3d 1251, 1258 (D.C. Cir. 2004). “Experts agree that the ultimate solution will be a ‘geologic repository,’ in which [spent fuel] is stored deep within the earth, protected by a combination of natural and engineered barriers.” *State of N.Y. v. Nuclear Regul. Comm’n*, 681 F.3d 471, 474 (D.C. Cir. 2012) (quoting Blue Ribbon Commission on America’s Nuclear Future, Report to the Secretary of Energy at ix, 29 (2012) (“Blue Ribbon Commission Report”) (App., *infra*, 382a-385a; 389a-393a)).

In 1982, Congress passed the Nuclear Waste Policy Act to establish a deep geological repository for spent fuel. Recognizing that “[w]e will never have a permanent repository if the utilities do not have a need for one”

(128 Cong. Rec. 28,037 (1982)), Congress imposed strict limitations on the federal government taking ownership of privately generated spent fuel. Under 42 U.S.C. § 10222(a)(5)(A), the U.S. Department of Energy (“DOE”) may not assume ownership or liability for any spent fuel until a repository is licensed and operating. Under 42 U.S.C. § 10168(b), only the DOE may be licensed to site, build, and operate a facility for storage of federally-owned spent fuel. Moreover, the only type of away-from-reactor storage for federally-owned spent fuel that may be licensed is a federally-owned and operated, congressionally approved monitored retrievable storage facility. 42 U.S.C. § 10161.

The Act also requires reactor licensees to bear the cost of interim spent fuel storage and permanent disposal. 42 U.S.C. §§ 10131(a)(4), 10131(a)(5). To finance the construction and operation of a deep geological repository, reactor licensees must contribute to a federal Nuclear Waste Fund. 42 U.S.C. § 10222(a)(1). Monitored retrievable storage of federally-owned spent fuel must also be paid for by reactor licensees.⁷

To date, no repository has been built or licensed. Accordingly, “[m]ost of the Nation’s spent nuclear fuel continues to be stored on site at nuclear power plants.” *Texas*, 605 U.S. at 672. And reactor licensees have recovered billions of dollars in damages for the federal government’s failure to take their spent fuel and begin operating a repository.

7. No such limits were imposed on private storage of *privately-owned* spent fuel. *Bullcreek v. Nucl. Regul. Comm’n*, 359 F.3d 536, 537–38 (D.C. Cir. 2004).

See, e.g., Blue Ribbon Commission Report at 80 (App., *infra*, 393a).⁸

As the prospect of a geologic repository continues to recede, nuclear power plant owners and the DOE have contemplated the construction of large, privately-owned-and-operated surface facilities for consolidated temporary long-term storage of spent fuel. Blue Ribbon Commission Report at xii (App., *infra*, 387a-389a). But the costs of transporting a large quantity of spent fuel to these facilities and maintaining it safely over decades is potentially prohibitive for private reactor licensees. Thus, companies like Holtec “hope[]” that someday Congress will change the law to allow reactor licensees to transfer ownership and liability for spent fuel to the federal government despite the government’s failure to license and operate a deep geological repository. *See Holtec Commission Decision*, 91 N.R.C. at 174 (2020) (App., *infra*, 29a) (“Holtec also acknowledged that it hopes Congress will change the law to allow DOE to enter into temporary storage contracts with Holtec.”).

8. Recognizing that such contract damage lawsuits are now “commonplace,” the NRC’s Licensing Board noted that “both DOE and the nuclear power plant owners potentially have an interest in contracting to use Holtec’s proposed interim storage facility[.]” *Holtec Licensing Board Decision*, 89 N.R.C. at 376 (App., *infra*, 150a). While speculating that “DOE might want to take responsibility for the nuclear plants’ spent fuel, pay Holtec to store it, and stop paying out damages[.]” the Board concluded that “the [Nuclear Waste Policy Act] was drafted on the assumption that DOE would not accept title to spent nuclear fuel until a permanent repository becomes operational,” and therefore the “terms” of the Act prohibit such contracts. *Id.* at 376–77 (App., *infra*, 150a).

Congress is aware of these “hopes,” and it has entertained many bills to weaken the Act by substituting the less-secure but easier-to-achieve alternative of long-term surface storage of federally-owned spent fuel.⁹ However, none of those attempts have succeeded. The Nuclear Waste Policy Act remains in effect and continues to prohibit the DOE from taking any ownership of spent fuel until a deep geologic repository is licensed and operating.

9. *See, e.g.*, Nuclear Waste Informed Consent Act, S.101, 119th Cong. (2025); Nuclear Waste Informed Consent Act, H.R. 446, 119th Cong. (2025); STORE Nuclear Fuel Act of 2024, H.R. 10227, 118th Cong. (2024); Nuclear Waste Administration Act of 2024, H.R. 9786, 118th Cong. (2024); Nuclear Waste Informed Consent Act, S.404, 118th Cong. (2023); Nuclear Waste Informed Consent Act, H.R. 1051, 118th Cong. (2023); Nuclear Waste Informed Consent Act, S. 541, 117th Cong. (2021); Nuclear Waste Task Force Act of 2021, S. 2871, 117th Cong. (2021); Nuclear Waste Task Force Act of 2021, H.R. 5401, 117th Cong. (2021); Nuclear Waste Informed Consent Act, H.R. 1524, 117th Cong. (2021); STORE Nuclear Fuel Act of 2019, H.R. 3136, 116th Cong. (2019); Nuclear Waste Informed Consent Act, H.R. 1544, 116th Cong. (2019); Nuclear Waste Policy Amendments Act of 2019, H.R. 2699, 116th Cong. (2019); Nuclear Waste Administration Act of 2019, S. 1234, 116th Cong. (2019); Nuclear Waste Informed Consent Act, S. 649, 116th Cong. (2019); Interim Consolidated Storage Act of 2017, H.R. 474, 115th Cong. (2017); Removing Nuclear Waste from our Communities Act of 2017, H.R. 4442, 115th Cong. (2017); Nuclear Waste Policy Amendments Act of 2018, H.R. 3053, 115th Cong. (2017); Interim Consolidated Storage Act of 2016, H.R. 4745, 114th Cong. (2016); Interim Consolidated Storage Act of 2015, H.R. 3643, 114th Cong. (2015); Nuclear Waste Administration Act of 2015, S. 854, 114th Cong. (2015).

B. The Hobbs Act

The Hobbs Act gives the courts of appeals “exclusive jurisdiction” to review “all final orders” of the NRC “made reviewable by section 2239 of title 42,” i.e., the Atomic Energy Act. 28 U.S.C. § 2342(4). Sections 2239(a)(1)(A) and (b) of the Atomic Energy Act, in turn, provide that judicially reviewable “orders” include “[a]ny final order” issued in a “proceeding” for the “granting, suspending, revoking, or amending of any license or construction permit[.]” An NRC order rejecting a hearing request on a proposed license is deemed “final” for purposes of Hobbs Act review. *See Fla. Power & Light Co. v. Lorion*, 470 U.S. 729, 740–41 (1985).

The Hobbs Act is a “statute of repose,” i.e., a statute which “puts an outer limit on the right to bring a civil action[.]” *Corner Post*, 603 U.S. at 812. A key limit of the Hobbs Act is the jurisdictional requirement that any petition for review of a final NRC licensing order must be submitted by a “party aggrieved,” i.e., an entity that was or sought to become a party to the licensing proceeding. *Texas*, 605 U.S. at 676–77. The petition for review must also be submitted within 60 days of the order. 28 U.S.C. § 2344.

On review of an NRC licensing decision, the court applies the APA standards of whether the NRC’s licensing decision was “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” 5 U.S.C. § 706(2) (A); *Oglala Sioux Tribe*, 45 F.4th at 298–99; *see also F.C.C. v. Fox Television Stations, Inc.*, 556 U.S. 502, 525 (2009) (holding that independent agencies are subject to the same scrutiny as executive agencies in context of APA review).

After the NRC has issued a license, a party may seek Hobbs Act review of an NRC order denying a petition pertaining to the enforcement of the license. *Fla. Power & Light Co.*, 470 U.S. at 746. But such NRC enforcement decisions are presumptively “unreviewable.” *Safe Energy Coal.*, 866 F.2d at 1477; *Corner Post*, 603 U.S. at 824 n.9.

C. The Atomic Energy Act and Its Implementing Regulations

The Atomic Energy Act, 42 U.S.C. §§ 2011–2297, authorizes the NRC to license commercial nuclear facilities, including away-from-reactor storage facilities for spent fuel. *Bullcreek*, 359 F.3d at 537–38. *But see Texas*, 605 U.S. at 703 (Gorsuch, dissenting). The NRC may grant licenses for the possession of special nuclear material, including spent fuel, if it would not be “inimical to the common defense and security or the health and safety of the public.” 42 U.S.C. § 2099. The Atomic Energy Act also gives the NRC discretion to promulgate regulations governing the satisfaction of this statutory standard. 42 U.S.C. § 2111(a). The NRC’s equivalent regulatory standard for the statutory safety standard is whether the applicant has provided “reasonable assurance” that the facility will be built and operated safely and will comply with applicable regulations. 10 C.F.R. § 72.40(a)(13).

To satisfy the “reasonable assurance” standard, the NRC allows the use of license conditions pursuant to 10 C.F.R. § 72.44(a). *In re Private Fuel Storage, L.L.C.*, 52 N.R.C. 23, 29 (2000) (holding that license conditions provide “an acceptable method for providing reasonable assurance” of safety and compliance with the NRC’s Part 72 safety regulations); *see also id.* at 28 (citing with

approval *In re Louisiana Services, L.P.*, 46 N.R.C. 294 (1997) for its “‘license conditions’ approach” to nuclear facility licensing). License conditions must be “precisely drawn,” however, “so that the verification of compliance becomes a largely ministerial rather than an adjudicatory act.” *Private Fuel Storage*, 52 N.R.C. at 34 (citing *Union of Concerned Scientists v. NRC*, 735 F.2d 1437, 1449 (D.C. Cir. 1984)); *In re Consol. Edison of N.Y.*, 7 A.E.C. 947, 951 (1974)).

II. Factual and Procedural History

In March 2017, Holtec applied for a license to store up to 173,600 metric tons of spent nuclear reactor fuel at a proposed facility in southeastern New Mexico. 83 Fed. Reg. 32,919 (July 16, 2018).¹⁰ As summarized by the D.C. Circuit, Holtec “initially stated in its application that it would store only DOE-titled spent nuclear fuel, but then amended its application to state that the facility would accept fuel from both DOE and private parties.” *Beyond Nuclear*, 113 F.4th at 963–64 (App., *infra*, 7a–8a). Petitioner moved to dismiss the entire licensing proceeding, noting that the “central premise” of the proposed license—that DOE will be responsible for spent fuel during transportation and storage at the facility—violated the Nuclear Waste Policy Act’s prohibition against DOE assumption of title to spent fuel. Motion to Dismiss at 19–20 (App., *infra*, 318a). In the alternative, Petitioner requested a hearing on whether the inclusion

10. Holtec sought approval for initial storage of 8,680 metric tons of spent fuel with ultimate plans to increase this capacity to 173,600 metric tons, nearly double the nation’s current inventory of spent fuel. 83 Fed. Reg. 12,034 (Mar. 19, 2018).

of the unlawful condition required the NRC to reject the application. Hearing Request at 10–11 (App., *infra*, 364a).

Because NRC regulations do not contemplate motions to dismiss, the NRC denied Petitioner’s motion to dismiss the Holtec licensing proceeding on procedural grounds, without prejudice. Unpublished Order (Oct. 29, 2018) at 3 (App., *infra*, 103a-104a). A three-judge Licensing Board panel then denied Petitioner’s hearing request. *Holtec Licensing Board Decision*, 89 N.R.C. at 376–82 (App., *infra*, 158a-162a). While noting agreement among all parties that the license condition allowing Holtec to store federally-owned spent fuel violated the Nuclear Waste Policy Act, the Licensing Board upheld the license condition on the grounds that Holtec had promised not to act on it unless and until Congress changed the law to allow the forbidden conduct; and further, the license was saved by its additional provision allowing Holtec to lawfully store privately-owned spent fuel. *Id.* at 382 (reasoning the license allows Holtec “to enter into lawful customer contracts today, but also permit[s] it to enter into additional customer contracts if and when they become lawful in the future”) (App., *infra*, 160a-161a). In the event that Congress changed the law to allow Holtec to store federally-owned spent fuel, the Board saw “no discernable purpose that would be served . . . by requiring Holtec to file a new or amended license application for its storage facility or by the NRC entertaining a fresh opportunity to request a hearing.” *Id.* (App., *infra*, 161a).¹¹ The NRC

11. *See also id.* (“Beyond Nuclear correctly points out that the Administrative Procedure Act (APA) requires federal agencies to follow the law, but we do not interpret either the APA or [the Nuclear Waste Policy Act] to require the NRC to perform a useless act.”) (App., *infra*, 161a).

Commissioners affirmed the Licensing Board’s denial of Petitioner’s hearing request, holding that the issuance of the license condition would not “violate the [Nuclear Waste Policy Act].” *Holtec Commission Decision*, 91 N.R.C. at 176 (2020) (App., *infra*, 32a).

In accordance with the Hobbs Act, Petitioner timely filed a petition for review of the NRC’s decision with the U.S. Court of Appeals for the D.C. Circuit. The court upheld the decision, holding that:

[T]he NRC’s regulations explicitly permit licenses to include forward-looking terms, such as approval of an action upon the satisfaction of some condition. 10 C.F.R. § 72.44(a); *see also Oglala Sioux Tribe*, 45 F.4th at 304 (holding a conditional license was lawful). Such conditions are often essential in light of the protracted timelines for securing a license and the need to anticipate changing conditions and regulatory shifts.

Beyond Nuclear, 113 F.4th at 964 (App., *infra*, 9a).

In addition, the court found that a license provision allowing Holtec to store privately-owned spent fuel, “assumed” to be lawful, saved the lawfulness of the license:

Even if the [Nuclear Waste Policy Act] prohibits DOE from taking title to private spent nuclear fuel until a permanent repository for the disposal of such fuel is built, a point we assume without deciding, the statute does not affect “the NRC’s authority under the [Atomic

Energy Act] to license and regulate private use of private away-from-reactor spent fuel storage facilities.”

Id. (citations omitted). Thus, the court found that “[t]he Commission correctly determined that Beyond Nuclear did not raise a genuine dispute of law or fact,” and therefore denied review. *Id.*

Petitioner timely filed a petition for en banc review or panel rehearing to the D.C. Circuit. (App., *infra*, App H). On August 5, 2025, the D.C. Circuit denied the petition without further explanation. *Beyond Nuclear*, 2025 WL 2231431 (App., *infra*, App D).

REASONS FOR GRANTING THE PETITION

In the case below, the D.C. Circuit assisted the NRC to demolish two constitutionally-rooted APA guardrails against agency overreach: the prohibition in 5 U.S.C. § 706(2)(A) of action that is “arbitrary, capricious, an abuse of discretion or otherwise not in accordance with the law,” and the “basic presumption of judicial review.” *Abbot Lab’ys*, 387 U.S. at 140. As a result of the D.C. Circuit’s decision, an agency may now issue a conditional license that concededly violates current law, based on mere speculation as to what the law might be in the future. And license conditions that normally are used to require future compliance with existing law may now be used for the opposite purpose—to allow future activities that are prohibited by current law. Accordingly, agencies will be free to wantonly disregard the APA’s prohibition against unlawful conduct by issuing licenses conditioned entirely on anticipated legislative actions.

And if the agency is a Hobbs Act agency like the NRC, it now may game the hearing process to preclude any hearing or judicial review of the license under current *or* future law, purely for the convenience of the agency and the regulated entity. This circumvention of hearing rights protected by the APA and the Constitution can be achieved in two steps. First, at the time the license is granted, the agency may deny a hearing on the grounds that the unlawfulness of the license condition under current law is uncontested and therefore no litigable dispute about it exists. Second, at such time as the law may change, the agency may deny a hearing on the grounds that the license was issued previously, the condition is now fulfilled, and no further licensing action is necessary. Because the license was already granted, the Hobbs Act will render any citizen petition challenging the license condition's compliance with the amended law unreviewable. *Safe Energy Coal.*, 866 F.2d at 1477; *Corner Post*, 603 U.S. at 824 n.9.

With its decision in *Beyond Nuclear*, the D.C. Circuit has thus handed the NRC and other Hobbs Act agencies a “blank check” to exceed their statutory mandates unhindered by judicial review. *Bowen*, 476 U.S. at 671. One need look no further than this case to see that no statutory scheme would be considered too comprehensive, complex, or important a subject for speculation. *See infra* note 12. The Court should not allow the NRC's court-enabled devastation of basic principles of administrative law and judicial review to stand, and instead it should grant this petition for certiorari.

I. By Affirming Holtec’s License Condition, the D.C. Circuit Violated the APA and the Constitutional Separation of Powers Doctrine

To protect “a regime of separate and divided powers,” *Bowen*, 476 U.S. at 670–671, Congress passed the APA. And to ensure that Congress’s mandates are followed, the APA makes no exception to its requirement that agency actions “not in accordance with the law” must be “set aside.” 5 U.S.C. § 706(2)(A).

Congress’s mandates in the Nuclear Waste Policy Act are unequivocal and undisputed: private parties may not take possession of any federally-owned spent fuel until a permanent repository is licensed and constructed. 42 U.S.C. §§ 10222(a)(5), 10168(b), 10161(a)(4); *see also Holtec Commission Decision*, 91 N.R.C. at 176 (noting that DOE has publicly taken the position that it cannot lawfully provide interim storage before a repository is operational) (App., *infra*, 30a). The NRC’s issuance of a license condition allowing the opposite should accordingly be set aside because it is “incompatible with the expressed . . . will of Congress.” *Youngstown*, 343 U.S. at 637 (Jackson, J. concurring).

Importantly, none of the D.C. Circuit’s attempts to craft an exception to the APA’s strict, constitutionally-based proscription against unlawful agency action can withstand scrutiny. First, the D.C. Circuit conceded the unlawfulness of the license condition, *Beyond Nuclear*, 113 F.4th at 964 (App., *infra*, 8a-9a), and yet excused its unlawfulness because the condition was “essential in light of the protracted timelines for securing a license and the need to anticipate changing conditions and regulatory shifts.” *Id.* As this Court has repeatedly warned, however,

“pleas of administrative inconvenience . . . never ‘justify departing from the statute’s clear text.’” *Corner Post, Inc. v. Bd. of Governors of the Fed. Rsrv. Sys.*, 603 U.S. 799, 823 (quoting *Niz-Chavez v. Garland*, 593 U.S. 155, 169 (2021) and *Pereira v. Sessions*, 585 U.S. 198, 217 (2018)); *see also Immigr. & Naturalization Serv. v. Chadha*, 462 U.S. 919, 944 (1983) (“[T]he fact that a given law or procedure is efficient, convenient, and useful in facilitating functions of government, standing alone, will not save it if it is contrary to the Constitution.”).

Section 706(2)(A) of the APA contains no exception for indulging the licensee’s “need” to prepare for changing marketplace conditions or dispense with a time-consuming hearing. *See Beyond Nuclear*, 113 F.4th at 964 (App., *infra*, 9a). Instead, licenses must conform to current law. If and when the law changes, the license can be modified or withdrawn and re-applied for, thereby triggering the opportunities for public participation and judicial review.

Nor does the “forward-looking” nature of license conditions provide an escape hatch from the rigors of Section 706(2)(A). *See id.* All license conditions are “forward-looking” in the sense that they allow future conduct by the licensee. But that conduct must be based in law. *Private Fuel Storage*, 52 N.R.C. at 29; *Oglala Sioux Tribe*, 45 F.4th at 304. In addition, future compliance with license conditions must be straightforward enough to be capable of administrative verification without the need for adjudication. *Private Fuel Storage*, 52 N.R.C. at 34–35. By its very nature, a license condition based on future law is too speculative to be conducive to such ministerial approval.¹²

12. But even assuming for purposes of argument that a valid license could be based on future law, the NRC’s attempt

Nor does the fact that the license authorizes other activities that are permitted by current law excuse the inclusion of the unlawful license condition. *Beyond Nuclear*,

to minimize the legal significance of Holtec's license condition is absurd. As characterized by the Licensing Board, if DOE were to take title to spent fuel for storage at Holtec's facility, DOE would be just an "additional customer" that could be added to or swapped out for private Holtec customers. *Holtec Licensing Board Decision*, 89 N.R.C. at 382 (App., *infra*, 161a). *See also Holtec Commission Decision*, 91 N.R.C. at 176 (App., *infra*, 30a). But this characterization is the regulatory equivalent of "hid[ing] elephants in mouseholes." *Whitman v. Am. Trucking Ass'n, Inc.*, 531 U.S. 457, 468 (2001) ("Congress . . . does not alter the fundamental details of a regulatory scheme in vague terms or ancillary provisions[.]").

If and when Congress changes the Nuclear Waste Policy Act to allow the federal government to take ownership of spent fuel at a private facility before a repository is licensed, that will constitute a wholesale reversal of the Act's statutory scheme, which currently drives the country towards a permanent repository by, among other things, separately assigning ownership and liability for the waste during federal storage. *See, e.g.*, 42 U.S.C. § 10161(a) (4) (mandating that reactor licensees bear the *cost* of spent fuel storage at a federal monitored retrieval facility after *ownership* is transferred to DOE) and discussion, *supra*, at Statement of the Case, Section I.A. If Congress abandons the repository goal, it is anyone's guess how it would re-apportion ownership and liability between private entities and the federal government during private storage. Under a changed law, disentangling the apportionment of ownership and financial liability, and assessing whether Congress has allocated enough funding for DOE to assume the apportioned liability, may require NRC to make "complex" "legal and factual judgments" not suitable to ministerial verification. *Private Fuel Storage*, 52 N.R.C. at 34. Such a consequential assessment cannot rationally be squeezed into the narrow confines of a license condition.

113 F.4th at 964 (App., *infra*, 8a-9a) (upholding the NRC’s decision because it also lawfully permitted “private use of private away-from-reactor spent fuel storage facilities”). The court’s rationalization runs directly afoul of the longstanding presumption that unlawful provisions must be severed, whether they appear in federal statutes, *Barr v. Am. Ass’n of Pol. Consultants*, 591 U.S. 610, 625 (2020); regulations, *K Mart Corp. v. Cartier*, 486 U.S. 281, 294 (1988); or contracts, Restatement (Second) of Contracts 184(1) (1981). Principles of severability, grounded by our system of separated powers, extend all the way back to our founding. *Barr*, 591 U.S. at 626–627. By refusing to sever the Holtec license’s unlawful condition, the D.C. Circuit undermined these fundamental principles.¹³

Accordingly, the D.C. Circuit’s decision should be reviewed for its unlawful attempts to create multiple exemptions to the strict prohibition of 5 U.S.C. § 706(2) (A) against agency actions that are contrary to law.

II. The D.C. Circuit Unlawfully Deprived Petitioner of Its Right to Judicial Review Now or in the Future

By erroneously relying on the “forward-looking” nature of Holtec’s license condition, *Beyond Nuclear*, 113 F.4th at 964 (App., *infra*, 9a), the court also unlawfully enabled the NRC to “cut off” the only opportunity for judicial review afforded Petitioner by the Hobbs Act.

13. While this Court may grapple with how to sever an unlawful provision but keep the remaining lawful provisions intact (*see, e.g., Barr*, 591 U.S. at 628), it has never held that these lawful provisions somehow rescue the unlawful ones. Instead, it has proceeded on the seemingly obvious premise that the unlawful provisions must be removed.

Abbott Lab'ys, 387 U.S. at 140. The court found that the license condition need not comply with the law of today, and therefore the NRC had not erred in rejecting Petitioner's hearing request. *Beyond Nuclear*, 113 F.4th at 964 (App., *infra*, 9a). As discussed above in Section I, however, the mere fact that a license condition is "forward-looking" neither means that its terms can violate the law, nor that the agency can rely on speculation about future law to deny a hearing on the condition's current unlawfulness.

Further, by approving the NRC's rebuff of Petitioner's hearing request, the court went along with the NRC's intentional plan to immunize itself from *any* legal obligation to offer a public hearing, which the NRC openly deemed "useless" at the time of licensing and of "no discernable purpose" if Congress changes the law to allow private storage of federally-owned spent fuel in the future. *Holtec Licensing Board Decision*, 89 N.R.C. at 382 (App., *infra*, 161a).¹⁴ In violation of the APA and this Court's precedents, the D.C. Circuit thereby "cut off" Petitioner's *only* opportunity to seek "party aggrieved" status under the Hobbs Act for purposes of challenging the license condition. *Abbott Lab'ys*, 387 U.S. at 140; *Richards*,

14. Under the Hobbs Act, seeking a hearing was an essential step for Petitioner to obtain the "party aggrieved" status necessary for judicial review of the unlawful license condition. *Texas*, 605 U.S. at 674, 676–77 (citing 28 U.S.C. § 2344 and the 42 U.S.C. § 2239(a)(1)(A)). And Petitioner had to submit a petition for judicial review within 60 days of the NRC's adverse decision. 28 U.S.C. § 2344. Having denied Petitioner its hearing request and granted Holtec its conditioned license, Petitioner's only recourse will be to petition for enforcement of Holtec's license, over which the NRC has unreviewable discretion. *Safe Energy Coal.*, 866 F.2d at 1477; *Corner Post*, 603 U.S. at 824 n.9.

517 U.S. at 798. Accordingly, the D.C. Circuit's decision should be reviewed for its unlawful attempts to prevent Petitioner its day in court.

III. If Left Undisturbed, the D.C. Circuit's Decision Will Cause Serious Harm to Petitioner, Other Members of the Public, and the Administrative State

If the D.C. Circuit's decision is allowed to stand, Hobbs Act agencies, *see supra* note 5, and the entities they regulate will have a green light to game the administrative system, using license conditions to sanction currently unlawful actions based on future law. Allowing such action not only threatens to upset the balance of powers between branches but also threatens to create more inefficiencies than it will resolve. If permitted to issue licenses based on anticipated regulatory shifts, agencies may soon be overwhelmed with license applications grounded only in guesswork about Congress' next steps.

But the harm will not stop there. Without the benefit of a crystal ball, affected parties will be unable to form concrete complaints about whether these licenses comply with the laws of tomorrow, effectively denying these parties their day in court.

CONCLUSION

For the reasons set forth above, the petition for a writ of certiorari should be granted.

Respectfully submitted,

DIANE CURRAN
HARMON, CURRAN, SPIELBERG
& EISENBERG, LLP
1725 DeSales Street NW,
Suite 500
Washington, D.C. 20036

MINDY GOLDSTEIN
Counsel of Record
TURNER ENVIRONMENTAL
LAW CLINIC
EMORY UNIVERSITY
SCHOOL OF LAW
1301 Clifton Road
Atlanta, GA 30322
(404) 727-3432
magolds@emory.edu

Counsel for Petitioner

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**APPENDIX A — OPINION OF THE UNITED STATES
COURT OF APPEALS FOR THE DISTRICT OF
COLUMBIA CIRCUIT, DECIDED AUGUST 27, 2024**

UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 20-1187

BEYOND NUCLEAR, INC.,

Petitioner,

v.

U.S. NUCLEAR REGULATORY COMMISSION
AND UNITED STATES OF AMERICA,

Respondents,

FASKEN LAND AND MINERALS, LTD., *et al.*,

Intervenors.

Consolidated with 20-1225, 21-1104, 21-1147

On Petitions for Review of Orders
of the Nuclear Regulatory Commission

Argued March 5, 2024

Decided August 27, 2024

Before: RAO, WALKER, and GARCIA, *Circuit Judges*.

Opinion for the Court filed by *Circuit Judge* RAO.

Appendix A

RAO, *Circuit Judge*: Holtec International applied to the Nuclear Regulatory Commission (“NRC” or “Commission”) for a license to construct and operate a spent nuclear fuel storage facility. The Commission denied multiple requests for intervention and a hearing. This case involves several consolidated petitions challenging the denial of intervention. Beyond Nuclear, Sierra Club and other environmental petitioners, and Fasken Land and Minerals and Permian Basin Land and Royalty Owners (“Fasken”), maintain that the Commission acted unreasonably and contrary to law. We deny the petitions because the Commission reasonably declined to admit petitioners’ factual contentions and otherwise complied with statutory and regulatory requirements when rejecting the requests to intervene.

I.

Spent nuclear fuel is a highly radioactive byproduct of generating nuclear energy. The NRC has authority to license private facilities to store spent nuclear fuel subject to “a series of intersecting statutory and regulatory requirements.” *Oglala Sioux Tribe v. NRC*, 45 F.4th 291, 296, 458 U.S. App. D.C. 532 (D.C. Cir. 2022). The Atomic Energy Act (“AEA”) mandates that all licensees “observe ... safety standards to protect health and to minimize danger to life or property.” Pub. L. 83-703, ch. 1073, § 103, 68 Stat. 919, 936 (1954) (codified at 42 U.S.C. § 2133(b) (2)). The NRC must also comply with the requirements of the National Environmental Policy Act (“NEPA”) by considering the environmental impacts of a licensed project. Pub. L. 91-190, § 102, 83 Stat. 852, 853 (1970) (codified at 42 U.S.C. § 4332(2)(C)).

Appendix A

Upon receiving a license application, the NRC must publish a notice in the Federal Register. 10 C.F.R. § 2.105. A party whose interest may be affected by the proceeding and who seeks to intervene must establish administrative standing and submit an admissible contention. *Id.* § 2.309(a), (d), (f)(1). The prospective intervenor must demonstrate, *inter alia*, that the issue raised is material to the license and that a genuine dispute exists on a material issue of law or fact. *Id.* § 2.309(f)(1)(iv), (vi). There must be at least one admissible contention for the NRC to grant a hearing. *Id.* § 2.309(a).

Holtec applied for a license to construct and operate an interim away-from-reactor spent nuclear fuel storage facility in Lea County, New Mexico. The petitioners here—Beyond Nuclear, Sierra Club and Joint Petitioners (collectively, “Environmental Petitioners”),¹ and Fasken—petitioned to intervene. They submitted numerous contentions and requested a hearing. The NRC established an Atomic Safety and Licensing Board (“Board”), which found the contentions inadmissible and denied the petitions to intervene. The NRC affirmed the Board’s decisions.²

1. Sierra Club and Joint Petitioners filed separately before the Commission but submit a joint brief here. The Joint Petitioners are Don’t Waste Michigan, Citizens’ Environmental Coalition, Citizens for Alternatives to Chemical Contamination, Nuclear Energy Information Service, San Luis Obispo Mothers for Peace, and Nuclear Issues Study Group.

2. See *In re Holtec Int’l*, 91 NRC 167 (Apr. 23, 2020); *In re Holtec Int’l*, 93 NRC 119 (Feb. 18, 2021); *In re Holtec Int’l*, 93 NRC 215 (Apr. 28, 2021).

Appendix A

Beyond Nuclear, Environmental Petitioners, and Fasken each petitioned for review of the orders denying intervention, which we consolidated for review. Holtec intervened in support of the NRC. In a motion, the Commission recognized that orders denying intervention are final orders, but requested the court hold the case in abeyance until the conclusion of the licensing proceedings, for if the license were denied the motions to intervene would be unnecessary. We held the case in abeyance without comment. *See Order, Beyond Nuclear, Inc. v. NRC*, No. 20-1187 (Oct. 8, 2020) (per curiam). After the Commission issued Holtec a license to construct and operate the facility, we removed the case from abeyance.

II.

Under the Hobbs Act, we have jurisdiction to review all final orders of the NRC “made reviewable by” 42 U.S.C. § 2239.³ 28 U.S.C. § 2342(4). The denial of intervention in a licensing proceeding is a final reviewable order. 42 U.S.C. § 2239(a)(1)(A), (b)(1); *Thermal Ecology Must Be Preserved v. Atomic Energy Comm’n*, 433 F.2d 524, 526, 139 U.S. App. D.C. 366 (D.C. Cir. 1970) (per curiam). “Any party aggrieved by the final order may” timely “file a petition to review the order.” 28 U.S.C. § 2344. To establish jurisdiction under the Hobbs Act, petitioners must have been a “party” to the underlying proceeding and must

3. The Hobbs Act references the Atomic Energy Commission, but the licensing and regulatory functions of that agency have since been transferred to the NRC. 42 U.S.C. §§ 5814(a), 5841(f). “[A]gency action that ‘derives’ from transferred authority is also reviewable under the Hobbs Act.” *Nuclear Energy Inst., Inc. v. EPA*, 373 F.3d 1251, 1265, 362 U.S. App. D.C. 204 (D.C. Cir. 2004) (per curiam).

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establish that they are “aggrieved” by the Commission’s orders. *Matson Nav. Co. v. Dep’t of Transp.*, 77 F.4th 1151, 1157, 462 U.S. App. D.C. 485 (D.C. Cir. 2023).

Petitioners satisfy this standard. First, petitioners Beyond Nuclear, Sierra Club, and Fasken were parties to the agency proceeding denying their requests to intervene. *Id.* at 1159; *see also Pub. Serv. Comm’n of N.Y. v. Fed. Power Comm’n*, 284 F.2d 200, 204, 109 U.S. App. D.C. 66 (D.C. Cir. 1960) (“A would-be intervenor is a party to a proceeding in a limited sense, restricted to the proceedings upon the application for intervention; he is aggrieved by the denial of his application.”). Second, these petitioners are “aggrieved” because they satisfy the injury, causation, and redressability requirements of Article III standing. Each petitioner is an organization that provided affidavits from members and employees who live or work only a few miles from the proposed facility. These members allege risks associated with the facility’s operations, including radiation exposure from stored spent nuclear fuel, as well as economic harm due to a potential reduction in their properties’ values. In addition, the denial of intervention and a hearing is a procedural injury that may be redressed by an order of this court. *See Lujan v. Defs. of Wildlife*, 504 U.S. 555, 572 n.7, 112 S. Ct. 2130, 119 L. Ed. 2d 351 (1992). Under our caselaw, this suffices to demonstrate standing.⁴ *Cf. Nuclear Info. & Res. Serv. v. NRC*, 509 F.3d 562, 567, 379 U.S. App. D.C. 35 (D.C. Cir. 2007) (holding petitioners living near a proposed uranium enrichment facility alleging a risk of

4. Because Joint Petitioners filed a brief with Sierra Club, we need not determine if the Joint Petitioners also have standing. *See Bullcreek v. NRC*, 359 F.3d 536, 540, 360 U.S. App. D.C. 184 (D.C. Cir. 2004).

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injury from radiation had standing to challenge a license issuance). Because petitioners are parties aggrieved by the denial of intervention, we have jurisdiction.⁵

III.

To establish an admissible contention, a would-be intervenor must, as relevant here, (1) “[d]emonstrate that the issue raised in the contention is material” to the licensing determination; (2) “[p]rovide a concise statement of the alleged facts or expert opinions which support [its] position”; and (3) “provide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact.” 10 C.F.R. § 2.309(f)(1) (iv)-(vi).

We review the denial of a contention under the Administrative Procedure Act and will set aside the Commission’s order if it is “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” 5 U.S.C. § 706(2)(A); *see also* 42 U.S.C. § 2239(b)(1). When the NRC denies a contention for failing to demonstrate a genuine dispute of material fact, we consider whether

5. While petitioners’ challenges were pending before our court, the Fifth Circuit vacated Holtec’s license. *Fasken Land & Mins., Ltd. v. NRC*, No. 23-60377, 2024 U.S. App. LEXIS 7258, 2024 WL 3175460, at *1 (5th Cir. Mar. 27, 2024) (per curiam). That decision does not moot this case because, at a minimum, the NRC has filed a petition for a writ of certiorari, so “[t]he controversy ... remains live.” *Exxon Mobil Corp. v. Saudi Basic Indus. Corp.*, 544 U.S. 280, 291 n.7, 125 S. Ct. 1517, 161 L. Ed. 2d 454 (2005); *see also* 13B CHARLES ALAN WRIGHT ET AL., *FEDERAL PRACTICE & PROCEDURE* § 3533.2.1 & n.22, Westlaw (database updated June 2024).

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the decision reflects “reasoned decisionmaking.” *Beyond Nuclear v. NRC*, 704 F.3d 12, 21 (1st Cir. 2013). Whether a petitioner has shown that a genuine dispute exists on a material issue of law is a legal question we review de novo.

A.

Beyond Nuclear alleges the Commission violated the Nuclear Waste Policy Act (“NWPA”), Pub. L. 97-425, 96 Stat. 2201 (1983) (codified at 42 U.S.C § 10101 *et seq.*), by even considering Holtec’s license application because the license is premised on accepting spent nuclear fuel from the Department of Energy (“DOE”). According to Beyond Nuclear, the NWPA prohibits DOE from taking title to private spent nuclear fuel until a permanent repository for the disposal of spent nuclear fuel is built,⁶ so it is unlawful for the Commission to consider the application.⁷

The Commission properly rejected this contention. Holtec initially stated in its license application that it

6. DOE has previously indicated “that it had no authority under the NWPA to provide interim storage in the absence of a facility that has been authorized, constructed and licensed in accordance with the NWPA.” *Indiana Michigan Power Co. v. Dep’t of Energy*, 88 F.3d 1272, 1274, 319 U.S. App. D.C. 209 (D.C. Cir. 1996).

7. Beyond Nuclear has no standing to challenge the license issuance. Because Beyond Nuclear was not admitted as an intervenor, it was not a “party” to Holtec’s license proceeding, and it cannot seek direct review of that order. *See Ohio Nuclear-Free Network v. NRC*, 53 F.4th 236, 239, 459 U.S. App. D.C. 266 (D.C. Cir. 2022).

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would store only DOE-titled spent nuclear fuel, but then amended its application to state that the facility would accept fuel from both DOE and private parties. In Board proceedings, Holtec acknowledged that DOE taking title to private spent nuclear fuel would violate the Act, clarified that it would contract with private parties, and explained that storage of DOE-titled spent nuclear fuel was only a potential alternative to storing private spent nuclear fuel. The Commission therefore treated Holtec’s application as requesting “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.” *In re Holtec Int’l*, 91 NRC 167, 176 (Apr. 23, 2020). Because the amended application sought a license for the lawful storage of privately owned spent fuel, and only the conditional storage of DOE-titled fuel if such storage became lawful, the Commission concluded that Beyond Nuclear had failed to raise a genuine dispute of law or fact.

The Commission’s consideration of Holtec’s license is consistent with relevant legal requirements. The AEA “authorized the NRC to regulate the possession, use, and transfer of the constituent materials of spent nuclear fuel” and to license the storage of spent nuclear fuel at onsite and away-from-reactor storage facilities. *Bullcreek v. NRC*, 359 F.3d 536, 538, 360 U.S. App. D.C. 184 (D.C. Cir. 2004). Even if the NWPA prohibits DOE from taking title to private spent nuclear fuel until a permanent repository for the disposal of such fuel is built, a point we assume without deciding, the statute does not affect “the NRC’s authority under the AEA to license and regulate private

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use of private away-from-reactor spent fuel storage facilities.” *Id.* at 542; *see also id.* at 543 (holding “there is no basis to conclude that in enacting the NWPA Congress implicitly repealed or superseded the NRC’s authority”).

Moreover, the NRC’s regulations explicitly permit licenses to include forward-looking terms, such as approval of an action upon the satisfaction of some condition. 10 C.F.R. § 72.44(a); *see also Oglala Sioux Tribe*, 45 F.4th at 304 (holding a conditional license was lawful). Such conditions are often essential in light of the protracted timelines for securing a license and the need to anticipate changing conditions and regulatory shifts.

The Commission correctly determined that Beyond Nuclear did not raise a genuine dispute of law or fact, so we deny its petition for review.

B.

Next, Environmental Petitioners challenge the Commission’s refusal to admit eleven contentions. We consider the contentions in three categories: (1) the Commission lacked statutory authority to grant Holtec a license; (2) Holtec made a material misrepresentation in its application; and (3) Holtec failed to comply with NEPA and the NRC’s regulations. None of Environmental Petitioners’ contentions raise a material dispute of law or fact, and the Commission’s rejection of the contentions was reasonable and consistent with legal requirements.

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1.

First, Environmental Petitioners allege the NRC had no statutory authority under the AEA or the NWPA to license any interim away-from-reactor storage facility for spent nuclear fuel. Although this argument is similar to Beyond Nuclear's contention, it reaches further. Environmental Petitioners claim the Commission had no statutory authority at all to license an away-from-reactor spent nuclear fuel storage facility, even if the facility contracted only with private parties. The Board easily rejected this contention, relying on this circuit's decision in *Bullcreek*. In *Bullcreek*, we explicitly held that the AEA provided "the NRC authority to license and regulate the storage and disposal of [spent nuclear] fuel," and "[p]ursuant to its AEA authority, the NRC promulgated regulations ... for licensing onsite and away-from-reactor spent nuclear fuel storage facilities for private nuclear generators." 359 F.3d at 538. Moreover, we held that the NWPA did not repeal or supersede this authority. *Id.* at 543.

Petitioners now press this statutory claim; however, they failed to exhaust this issue before the Commission. *See* 10 C.F.R. § 2.1212 ("Unless otherwise authorized by law, a party to an NRC proceeding must file a petition for Commission review before seeking judicial review of an agency action."). At oral argument, Petitioners' counsel conceded that they failed to exhaust this issue. *See* Tr. of Oral Arg. 17-18. In their briefing, Petitioners do not argue this court should exercise its discretion to excuse the failure to exhaust. *Cf. Vermont Dep't of Pub. Serv. v.*

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United States, 684 F.3d 149, 156-57, 159, 401 U.S. App. D.C. 353 (D.C. Cir. 2012) (holding the Hobbs Act does not include a jurisdictional exhaustion requirement but recognizing that 10 C.F.R. § 2.1212 imposes a mandatory issue exhaustion requirement that may be excused by the court). In these circumstances, we decline to review Petitioners' unexhausted claim.

2.

Second, Environmental Petitioners argue that Holtec made a materially false statement in its application and that this misrepresentation prevents the approval of Holtec's license. The AEA states that a license "may be revoked for any material false statement in the application." 42 U.S.C. § 2236(a). As already discussed, Holtec's initial application indicated that it would contract with DOE for the storage of spent nuclear fuel. The application was later revised to include contracting with private parties and DOE, and Holtec represented it would contract with DOE only if such contracting became lawful. Petitioners argue this was a misrepresentation because a Holtec newsletter stated that "deployment [of the facility] will ultimately depend on the DOE and the U.S. Congress." Petitioners point to this statement to contend that Holtec would merely use the license "as leverage to persuade Congress to change the law to allow the [DOE] to hold title to the [fuel]." And because Holtec had no intention of contracting with private parties for spent nuclear fuel, the application was based on false information, which Petitioners maintain can provide a ground for denying the license.

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The Commission assumed without deciding that it may *deny* a license based on a misrepresentation in the application, even though 42 U.S.C. § 2236(a) states only that a license may be “revoke[d]” based on a misrepresentation. Nonetheless, the Commission rejected Petitioners’ contention because Holtec’s statements were neither false nor material to the licensing proceeding. Holtec accurately represented that it would contract with DOE, if such contracting became lawful, and Holtec acknowledged that the facility’s success might depend on government action. Moreover, the Commission also rejected the contention because “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.” *In re Holtec Int’l*, 91 NRC at 193.

The Commission reasonably determined that there was no genuine dispute of material fact and that the issue was not material to these proceedings. Holtec did not make a false statement in its application when it represented that it would contract with private parties for the storage of spent nuclear fuel and would contract with DOE only if such contracting became lawful in the future. Nor did the company newsletter contradict the application. The newsletter merely recognized that Holtec’s ability to contract with DOE would depend on congressional action. Furthermore, Holtec’s intentions to contract with private parties were not material to the licensing proceeding. The Commission issues licenses based on compliance with safety, environmental, and other regulatory standards, not commercial viability. It was entirely reasonable for the Commission to conclude that Holtec’s business plans were not material to the licensing decision.

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Because there was no genuine dispute of material fact and Environmental Petitioners' claim was immaterial to the licensing proceeding, the Commission reasonably denied this contention.

3.

Environmental Petitioners also maintain the Commission unreasonably failed to admit their contentions challenging the adequacy of Holtec's environmental report. The NRC must report the environmental impacts of licensing a spent nuclear fuel facility, which is treated as a major federal action under NEPA. *See* 42 U.S.C. § 4332(2)(C). License applicants are required to report any environmental impacts caused by the facility and to consider "alternatives available for reducing or avoiding adverse environmental effects." 10 C.F.R. § 51.45(b), (c). A would-be intervenor raising NEPA-related issues "shall file contentions based on the applicant's environmental report." *Id.* § 2.309(f)(2).

When reviewing NEPA challenges under the APA's arbitrary or capricious standard, we will not "flyspeck" an agency's environmental analysis for minor deficiencies. *Nevada v. Dep't of Energy*, 457 F.3d 78, 93, 372 U.S. App. D.C. 432 (D.C. Cir. 2006). "[W]e do not supplant an agency's technical judgments and predictions so long as the agency's decision is reasoned and rational." *Oglala Sioux Tribe*, 45 F.4th at 299 (cleaned up). When petitioners fail to provide evidentiary support for their contention, the Commission may reject it. *See* 10 C.F.R. § 2.309(f)(1)(v), (vi).

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None of Environmental Petitioners' NEPA-related contentions raise a genuine dispute of material fact or law, so the Commission reasonably denied them.

a.

First, Environmental Petitioners maintain that Holtec's application inadequately disclosed earthquake risks by failing to account for the complete seismic history of the area or the effects of potential fracking near the facility. They support this contention with a 2018 Stanford University report that "document[s] the existence of prior earthquakes in southeast New Mexico" and "the existence of numerous faults ... around the proposed Holtec site."

The NRC rejected this contention because Holtec's environmental report, which relied on the 2016 U.S. Geological Survey, was not contradicted by the Stanford report. The Stanford report did not identify any earthquakes near the facility that occurred after the publication of the 2016 Survey. Both the Stanford report and the Survey also confirmed Holtec's representations that there were no faults near the proposed facility that have been active in the last 1.6 million years. The Commission also noted that Environmental Petitioners' claims of increased seismic risk due to fracking operations were not raised before the Board, and in any event, were unsupported by the Stanford report.

Petitioners argue the 2016 Survey is outdated, but they do not substantively refute the Commission's analysis or explain how its evaluation of the Stanford report was

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unreasonable. Based on the insufficiency of Petitioners' evidence, the Commission reasonably concluded there was no genuine dispute of material fact regarding Holtec's seismic analysis and correctly denied this contention.

b.

Environmental Petitioners also challenge the denial of four contentions that Holtec inadequately assessed the hydrogeological characteristics of the site. Each contention relied on the expert report of George Rice.

Petitioners first claimed that Holtec did not properly assess shallow groundwater at the site because Rice's report indicated that Holtec relied on only one effective monitoring well to evaluate the presence of groundwater. The Commission found, however, that Holtec's environmental report adequately addressed this issue. Holtec explained that it drilled five wells and monitored them for groundwater throughout the drilling process. Holtec also submitted boring logs and other data detailing its use of the wells to monitor the presence of groundwater. Because Rice's report failed to address the information in Holtec's environmental report, the Commission concluded there was no genuine dispute of material fact.

Petitioners also raised two contentions alleging that Holtec failed to address whether brine or fractured rock was beneath the facility. In rejecting the brine contention, the Commission explained that Holtec disclosed the existence of brine and provided evidence that there was

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no risk of brine coming into contact with spent nuclear fuel storage canisters. Without any supporting data, Rice speculated the brine could still run into the canisters, which Petitioners claim could cause corrosion or damage. The Commission determined this speculation did not provide a factual basis for the contention and raised no genuine factual dispute. The Commission rejected the fractured rock contention because Holtec's application acknowledged the presence of fractured rock in the area. The Rice report did not provide any evidence demonstrating that the presence of fractured rock would affect the facility. Therefore, Petitioners failed to raise a genuine dispute of material fact.

Petitioners also contended that Holtec improperly performed tests to assess the permeability of an aquifer near the facility. The Commission concluded that Rice's report was based on "mere speculation," and Holtec provided evidence the tests were performed according to a quality assurance program. *In re Holtec Int'l*, 93 NRC 119, 125 (Feb. 18, 2021).

The Commission reasonably denied all four contentions because Petitioners failed to raise a genuine dispute of material fact. To establish an admissible contention, a petitioner must "com[e] forward with factual issues, not merely conclusory statements and vague allegations." *In re Ne. Nuclear Energy Co.*, 53 NRC 22, 27 (Jan. 17, 2001); *see also Beyond Nuclear*, 704 F.3d at 21 ("Materials cited as the basis for a contention are subject to scrutiny ... to determine whether they actually support the facts alleged.") (cleaned up). Petitioners offered only speculation

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that Holtec's application was deficient in its analysis of hydrogeological issues. But speculation alone is insufficient to raise a genuine dispute of material fact. When, as here, a license applicant thoroughly addressed issues in its environmental report and a would-be intervenor offers nothing substantial to contest the analysis, the Commission's denial of the contention is wholly reasonable.

c.

Environmental Petitioners next challenge the Commission's denial of four contentions related to Holtec's disclosure of certain operational and transportation risks at the facility.

First, Environmental Petitioners claimed Holtec failed to conduct a site-specific analysis of the environmental impacts of the facility's operation or to provide for a dry transfer system. Petitioners maintain that Holtec's use of general estimates, based on the Generic Environmental Impact Statement for Continued Storage of Spent Nuclear Fuel ("Continued Storage Rule") was improper, particularly because the facility did not have plans for a dry transfer system. *See* 10 C.F.R. § 51.23. The Commission rejected these claims because Holtec did "evaluate[] the site-specific environmental effects associated with the construction and operation" of the facility and no NRC regulation required Holtec to have a dry transfer system, so there was no genuine dispute on a material issue of fact or law. *In re Holtec Int'l*, 91 NRC at 206-07.

Environmental Petitioners now merely reassert that Holtec did not perform a site-specific analysis, but

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they ignore the factual and legal grounds supporting the Commission's decision. The denial of this contention was reasonable and supported by the record, which clearly shows that Holtec conducted a site-specific environmental analysis, so there is no genuine factual dispute. Moreover, because Petitioners identify no legal requirement for a dry transfer system at Holtec's facility, under the Continued Storage Rule or otherwise, the Commission properly concluded there was no genuine legal dispute either.

Second, Environmental Petitioners contended that Holtec grossly underestimated the amount of low-level radioactive waste the facility would generate. Petitioners asserted that "millions of tons of concrete" and the facility's subsoil will be irradiated. In addition, they posited that the canisters used to store the spent nuclear fuel will need to be periodically replaced during the facility's lifetime. The Commission found that Petitioners failed to provide "any evidentiary support" for this contention. *Id.* at 205. Before this court, Petitioners claim only that it is "common sense" that materials surrounding spent nuclear fuel would be irradiated and assert that Holtec's environmental report underestimates the amount of waste that would be generated by the facility. Petitioners' argument is wholly speculative and does not undermine the Commission's reasoned determination that Petitioners failed to provide evidence to raise a genuine dispute of material fact.

Third, Environmental Petitioners contended that Holtec downplayed the dangers of transporting spent nuclear fuel, and they questioned Holtec's methods for preventing contaminated or leaking shipments from

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being accepted at the facility and for safely returning compromised shipments. The Commission rejected this contention because, among other deficiencies, Petitioners failed to offer any evidence that Holtec's radiation protection measures were ineffective or that there was a "credible scenario where a canister is breached in transport." *Id.* at 208. In the absence of any evidence raising a factual dispute, the Commission's decision to deny the contention was entirely reasonable.

Finally, Environmental Petitioners contended the Commission violated agency regulations and NEPA by allowing Holtec to submit representative, rather than probable, routes of potential spent nuclear fuel shipments for environmental review. The Commission found this contention failed to raise a genuine dispute of law or fact with the application. Although Petitioners cited two NRC regulations, 10 C.F.R. § 51.45 and 10 C.F.R. § 72.108, and NEPA, the Commission concluded that none of these required the disclosure of probable transportation routes in the environmental report. The Commission also found that Holtec's three representative routes were sufficient to determine the environmental impacts of transporting spent nuclear fuel. This approach comported with the Commission's practice of accepting representative routes at this stage of the licensing process. Moreover, the Commission observed the actual transportation routes for spent nuclear fuel must be approved in a separate review process involving local stakeholders and the Department of Transportation.

We find that Environmental Petitioners have failed to demonstrate any genuine dispute of law or fact regarding

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this contention. The sources relied upon by Petitioners simply do not require the disclosure of probable transportation routes of spent nuclear fuel in a licensing proceeding. Petitioners point to 10 C.F.R. § 51.45(b), but this is a general regulation requiring a report to disclose the environmental impact of a proposed action. And 10 C.F.R. § 72.108 similarly imposes a general requirement to evaluate “the potential impact on the environment of the transportation of spent fuel.” Neither regulation mandates the disclosure of probable transportation routes. Moreover, NEPA requires only that the NRC “take a ‘hard look’ at the environmental consequences” of a “major action.” *Balt. Gas & Elec. Co. v. Natural Res. Def. Council, Inc.*, 462 U.S. 87, 97, 103 S. Ct. 2246, 76 L. Ed. 2d 437 (1983) (cleaned up). The Commission reasonably explained it took this hard look by reviewing the environmental impacts of transportation along Holtec’s representative routes and observed that the actual routes would be assessed in a separate regulatory process.

Although Petitioners continue to insist that Holtec could have provided probable transportation routes, that possibility does not demonstrate the Commission acted unreasonably by considering representative routes. We conclude the Commission’s denial of this contention was reasonable and consistent with law.⁸

* * *

8. Environmental Petitioners also allege Holtec improperly “segment[ed]” its NEPA analysis by “[s]eparating consideration of the transportation component from the storage component.” Petitioners did not raise this argument before the Board, so the Commission refused to review it. Petitioners offer no reason why we should overlook their forfeiture.

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In sum, Environmental Petitioners fail to demonstrate the Commission acted arbitrarily, capriciously, or contrary to law in denying their contentions. Accordingly, we deny their petitions for review.

C.

Finally, Fasken claims the NRC arbitrarily declined to admit its late-filed contentions. After the Board rejected the petitions to intervene from Beyond Nuclear and Environmental Petitioners, the Board terminated the proceeding. Fasken then sought to raise several new contentions, primarily claiming that Holtec's application did not adequately disclose the control of subsurface mineral rights at the facility nor the extent of extraction operations in the vicinity of the facility.

A petitioner seeking to admit late-filed contentions must demonstrate "good cause" by showing that its contentions are based on previously unavailable and materially different information and are submitted "in a timely fashion based on the availability of the subsequent information."⁹ 10 C.F.R. § 2.309(c)(1)(i)-(iii).

9. Fasken also moved to reopen the record, which requires a petitioner to meet even more stringent standards than filing a late contention. *See* 10 C.F.R. § 2.326(a). "Because we find that [the] NRC properly denied Petitioners' contentions, and because the standards for reopening a closed proceeding are higher than those for admitting a new contention ... we need not reach the application of NRC's reopening regulations." *Blue Ridge Env't Def. League v. NRC*, 716 F.3d 183, 188, 405 U.S. App. D.C. 1 (D.C. Cir. 2013).

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The Commission reasonably determined that Fasken did not meet these regulatory criteria because the contentions were procedurally defective, untimely, and immaterial. The Commission explained that any challenge to Holtec's assertions about the ownership of subsurface mineral rights should have been made when Holtec's initial environmental report was published. Fasken's late-filed contention sought to introduce information on mineral rights and extraction operations, but Fasken fails to demonstrate that this information was previously unavailable or materially different from information available during the licensing proceeding.¹⁰ The Commission's rejection of Fasken's untimely contentions was reasonable and consistent with its regulations.

* * *

For the foregoing reasons, the Commission did not act unreasonably or contrary to law when it denied the requests for intervention by Beyond Nuclear, Environmental Petitioners, and Fasken in Holtec's licensing proceeding. We therefore deny the petitions for review.

So ordered.

10. Fasken also raised a challenge to the Board's denial of a related contention, but Fasken failed to appeal that denial to the Commission. We decline to review this unexhausted claim.

**APPENDIX B — MEMORANDUM AND ORDER OF
THE NUCLEAR REGULATORY COMMISSION,
FILED APRIL 23, 2020**

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

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

Docket No. 72-1051-ISFSI

In the Matter of

HOLTEC INTERNATIONAL

(HI-STORE Consolidated Interim Storage Facility)

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.¹ For the reasons described below,

1. *See* LBP-19-4, 89 NRC 353 (2019).

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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 2017². The proposed license would allow Holtec to store up to 8680 metric tons of uranium (MTUs) (500 loaded canisters) in the Holtec HI-STORE CISF for a period of forty years?³ 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.⁴ According to its application, Holtec plans up to nineteen subsequent expansion phases over the course of twenty years, with each expansion requiring a

2. *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 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. OF (Jan. 31, 2019) (ML19052A379) (SAR). References in this decision refer to the same revisions unless otherwise noted.

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

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

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license amendment.⁵ 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.⁶

The Staff published a notice of opportunity to request a hearing on Holtec's application in July 2018.⁷ 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.

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.⁸

5. *See* ER § 1.0.

6. *Id.*

7. *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).

8. *See* LBP-19-4, 89 NRC at 358.

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The Board concluded that Joint Petitioners and NAC had neither demonstrated standing nor offered an admissible contention.⁹ 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.¹⁰

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.¹¹ 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.¹² Similarly, we generally defer to the Board on questions pertaining to the sufficiency of factual support for the admission of a contention.¹³

9. *Id.*

10. *Id.* at 358, 370-71.

11. 10 C.F.R. §2.31 1(c).

12. *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).

13. *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.

*Appendix B***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.¹⁴ 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).¹⁵ Holtec envisions

14. *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 CISO 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.

15. *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

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that its customers will either be nuclear plant operators or DOE, depending on which entity holds title to the spent nuclear fuel.¹⁶

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 of Energy accepts delivery of it.¹⁷ 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.”¹⁸ 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.”¹⁹

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)).

16. *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).”).

17. 42 U.S.C. § 10143.

18. *Id.* § 10222(a)(5)(A).

19. *Id.* § 10101(18).

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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.²⁰ Holtec also acknowledged that it hopes Congress will change the law to allow DOE to enter into temporary storage contracts with Holtec.²¹ 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.”²² The Board observed that Holtec “is committed to going forward with the project” by contracting directly with the plant owners.²³ The Board held that whether that option is “commercially viable” was not an issue before the Board.²⁴ And it noted that Holtec had committed not

20. Tr. at 249-50.

21. Tr. at 248, 250.

22. LBP-19-4, 89 NRC at 381.

23. *Id.*

24. *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 Energy Services*, we denied review of the Board’s decision to reject

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to “contract unlawfully” with DOE.²⁵ The Board further pointed to DOE’s publicly taken position that it cannot lawfully provide interim storage before a repository is operational.²⁶ 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.”²⁷ 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.”²⁸

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.”²⁹ Beyond Nuclear frames the question as

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.

25. See LBP-19-4, 89 NRC at 381.

26. *Id.* at 382.

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

28. LBP-19-4, 89 NRC at 382.

29. *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)).

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whether the NRC “may approve a license application containing provisions that would violate NWPB if implemented.”³⁰ Similarly, Sierra Club argues that “the Holtec project cannot be licensed if there is a possibility that the financial arrangements would be illegal.”³¹ Fasken argues that Holtec’s license application is “outside of the ASLB’s and the NRC’s subject-matter jurisdiction” because approval would authorize a facility that violates the NWPB.³² The Staff and Holtec oppose the appeals.³³

30. *Id.*

31. *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).

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

33. *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.

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The three appellants' characterization largely restates arguments already advanced to the Board.³⁴ 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."³⁵ 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.³⁶ 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.³⁷ We disagree with the assertions that the license would violate the NWPA.³⁸ The NWPA does not prohibit

34. *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).

35. LBP-19-4, 89 NRC at 382.

36. *See* Proposed License at 2, ¶ 17.

37. *See* LBP-19-4, 89 NRC at 381-82.

38. 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

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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.³⁹ On October 23, 2019, Sierra Club also moved to admit a new contention concerning transportation risks.⁴⁰

1. Sierra Club Standing

As an initial matter, Holtec challenges the Board’s finding that Sierra Club has standing in this proceeding.⁴¹ Although in matters involving construction or operation of a nuclear power reactor we allow a “proximity

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.

39. Sierra Club Appeal at 5-7.

40. *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).

41. Holtec Opposition to Sierra Club Appeal at 27-30.

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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.⁴² This “proximity-plus” standard takes into account both the nature of the proposed activity and significance of the radioactive source.⁴³

Sierra Club based its standing on declarations of its members who live and work near the proposed site.⁴⁴ 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.⁴⁵ Mr. Berry stated that he, his wife, and his ranch

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

43. *Id.*

44. Sierra Club Petition at 6.

45. 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).

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hands spend time every day traversing the ranch on foot, horseback, and ATV, while managing their cattle.⁴⁶

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.”⁴⁷ 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.”⁴⁸

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 release which could affect any of their members.”⁴⁹ 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.”⁵⁰ We generally defer to a Board’s ruling on standing in the absence of

46. Berry Beyond Nuclear Declaration at ¶¶ 4-5.

47. LBP-19-4, 89 NRC at 366.

48. *Id.* at 367.

49. Holtec Opposition to Sierra Club at 28.

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

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clear error or an abuse of discretion.⁵¹ 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.⁵² 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).⁵³ The Baltimore

51. 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).

52. Sierra Club Petition at 22-27.

53. 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.

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Tunnel Analysis concluded that in a similar accident, a spent fuel cask would fail and the fuel rods would burst within eleven hours.⁵⁴ The study also provided estimates for the population exposed and latent cancer fatalities.⁵⁵ 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.⁵⁶ 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.⁵⁷

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

54. *Id.* at 8-9.

55. *Id.* at 13; Sierra Club Petition at 24-25.

56. Sierra Club Petition at 25.

57. *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).

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a genuine dispute.⁵⁸ Holtec’s ER accident analysis “tiered from” section 6.3.3.2 of the Yucca Mountain FSEIS.⁵⁹ 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).⁶⁰ DOE stated that this estimate was unrealistic because Mr. Lamb and Dr. Resnikoff had used conservative or bounding values for multiple parameters in their computer analysis, resulting in “unrealistically high yields.”⁶¹

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

58. *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.”).

59. *See* ER § 4.9.3.2 (transportation accident impacts).

60. 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.

61. Yucca Mountain FSEIS at 6-23.

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relied.⁶² The Board further found that the contention posed a “worst case scenario,” the consequences of which need not be discussed under NEPA.⁶³ 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.⁶⁴ It concluded that a scenario similar to the Baltimore Tunnel Fire would be “extraordinarily unlikely.”⁶⁵ 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.⁶⁶

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 raise a factual dispute.⁶⁷ 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.

62. LBP-19-4, 89 NRC at 387.

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

64. *Id.* (citing Tr. at 256-57).

65. *Id.* at 388.

66. *Id.* (citing Sierra Club Petition at 25-26).

67. Sierra Club Appeal at 9-11.

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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.⁶⁸ 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.⁶⁹ 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.⁷⁰ 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.⁷¹ This is insufficient factual support for a contention. We therefore affirm the Board’s decision to reject the contention.

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

69. *See* Yucca Mountain FSEIS vol. 1, § 6.3.3.2.

70. *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).

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

*Appendix B***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.⁷² 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.⁷³ 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.⁷⁴

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.⁷⁵ In its answer to Sierra Club's hearing request, Holtec argued that Sierra Club's calculations were incorrect

72. *See* Sierra Club Petition at 35-37.

73. *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)).

74. *Id.*

75. Decommissioning Cost Estimate § 2.2.

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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.⁷⁶ Second, Holtec claimed that Sierra Club did not account for the 3% rate of return Holtec expects to earn on the funds set aside.⁷⁷ Holtec also pointed out that its decommissioning funding plan will have to be updated and resubmitted every three years.⁷⁸ 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.⁷⁹

Sierra Club responded to Holtec by questioning its reliance on compound interest.⁸⁰ 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

76. Holtec Answer to Sierra Club at 44.

77. *Id.* at 44-45; *see* Decommissioning Cost Estimate § 2.2.

78. Holtec Answer to Sierra Club, at 45-46; *see* 10 C.F.R. § 72.30(c).

79. Holtec Answer to Sierra Club at 46.

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

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Plan.⁸¹ It further argued that it was “doubtful” that any surety company would issue a bond for Holtec’s facility.⁸² 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.⁸³

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 any future expansions.⁸⁴ 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.⁸⁵

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

81. *Id.*

82. *Id.* at 29-30.

83. *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.

84. LBP-19-4, 89 NRC at 393.

85. *Id.* at 393-94.

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analysis.⁸⁶ 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.⁸⁷ 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.⁸⁸ 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.⁸⁹ 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.

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

86. Sierra Club Appeal at 12-13.

87. *Turkey Point*, CLI-17-12, 86 NRC at 219.

88. Sierra Club Appeal at 12-13.

89. *See* Decommissioning Cost Estimate § 2.2.

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expected service life of 100 years.⁹⁰ 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.⁹¹ 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.⁹² 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.⁹³ 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.⁹⁴ Therefore, Sierra Club argued, the proposed Holtec facility is not like the hypothetical facility discussed in the Continued Storage GEIS.

90. *See* Sierra Club Petition at 38-42.

91. *Id.* at 38-39 (citing ER § 1.0).

92. *Id.* at 40.

93. *Id.* at 40-41.

94. *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).

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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 because Sierra Club did not seek a rule waiver.⁹⁵ 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 SAP’s discussion of retrievability, inspection, and maintenance activities.”⁹⁶

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.⁹⁷ Additionally, Sierra Club repeats the argument that the Continued Storage Rule does not apply to the proposed Holtec facility because the

95. 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).

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

97. *See* 10 C.F.R. § 2.335(b).

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Continued Storage GEIS assumes the presence of a DTS.⁹⁸ 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.⁹⁹ 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 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.”¹⁰⁰ But Holtec’s statements are not unsupported

98. Sierra Club Appeal at 13-14.

99. Continued Storage GEIS § 1.8.2 at 1-14, § 5.0 at 5-2.

100. 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=euaFZtOYPi4 (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-

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or conclusory—its SAR discusses plans for inspection, maintenance, retrieval, and aging management.¹⁰¹ 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.¹⁰² The SAR also describes how it will monitor the canisters to detect any stress corrosion cracking in its aging management program.¹⁰³

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

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)).

101. *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.

102. *See* SAR §§ 17.11, 18.3.

103. *See* SAR §§ 18.3, 18.5.

104. LBP-19-4, 89 NRC at 395.

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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.¹⁰⁵ 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."¹⁰⁶ 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."¹⁰⁷ 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 that Fasken

105. See Sierra Club Petition at 44-48.

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

107. Sierra Club Petition at 44-45 (citing Jens-Erik Lund Snee and Mark D. Zoback, *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)).

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Oil and Ranch, Ltd. and PBLRO Coalition submitted to NRC with respect to the Holtec application.¹⁰⁸

The Board rejected Sierra Club’s contention because it presented no genuine dispute with the application.¹⁰⁹ 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.¹¹⁰ 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.¹¹¹ The Board observed that both the ER and the SAR specifically discuss the effects of “fracking.”¹¹² 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

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

109. LBP-19-4. 89 NRC at 398.

110. *Id.*

111. *Id.*

112. *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”).

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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.¹¹³

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

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.¹¹⁵ 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.¹¹⁶

113. LBP-19-4, 89 NRC at 398-99; *see* SAR § 2.6.2 at 2-108.

114. Sierra Club Appeal at 15.

115. LBP-19-4, 89 NRC at 398-99.

116. *See* Stanford Report at 127. The report mentions that since January 2017, “at least three groups of earthquakes,

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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.”¹¹⁷ This argument is new on appeal; the original contention did not claim that fracking is causing new faults to form near the Holtec site.¹¹⁸ The claim also appears to be unsupported by the Stanford Report, which does not indicate that new faults or earthquakes are getting closer to the Holtec site.¹¹⁹

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.

117. Sierra Club Appeal at 15.

118. 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).

119. 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.

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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.¹²⁰ 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.¹²¹ 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.¹²² 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.¹²³ 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

120. *See* Sierra Club Petition at 60-67.

121. *Id.* at 60-62.

122. *Id.* at 62-63.

123. *Id.* at 63-65.

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drinking water.¹²⁴ Contention 19 argued that Holtec may have improperly conducted tests for hydraulic conductivity between the site and the Santa Rosa Formation.¹²⁵

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.¹²⁶ 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.¹²⁷ 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.¹²⁸ 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

124. *Id.* at 65-66.

125. *Id.* at 66-67.

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

127. *Id.* at 407.

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

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contamination from a defective canister could find its way outside a cask.”¹²⁹

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 did not adequately support the groundwater contentions because they were also inadmissible.¹³⁰

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.”¹³¹ Therefore, Sierra Club argues, its petition to intervene did controvert Holtec’s “assertion that the containers are impervious to leaking.”¹³²

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

129. 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)).

130. *Id.* at 404.

131. Sierra Club Appeal at 18.

132. *Id.* at 17.

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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.¹³³

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.¹³⁴ The Board noted that the SAR “fully incorporates by reference the HI-STORM UMAX design and thermal analysis 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).”¹³⁵

133. 10 C.F.R. § 2.335.

134. Sierra Club Petition at 56-60.

135. 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

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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.¹³⁶ The Staff acknowledges that the ER must characterize the site, but it argues that impacts need "only be discussed

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.

136. Sierra Club Appeal at 17.

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in proportion to their significance.”¹³⁷ Similarly, relying on the same passage in *Private Fuel Storage* quoted by the Board, Holtec argues that 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.¹³⁸

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 2007.¹³⁹ 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

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

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

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

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drilling even though the “materials are saturated.”¹⁴⁰ 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.¹⁴¹ 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.¹⁴²

Our regulations require an admissible contention to show a “genuine dispute exists with the applicant/licensee on a material issue of law or fact.”¹⁴³ A “dispute at issue is ‘material’ if its resolution would ‘make a difference in the outcome of the licensing proceeding.’”¹⁴⁴ Moreover, in the NEPA context we have warned, “[o]ne can always flyspeck

140. *Id.* at 3.

141. Sierra Club Petition at 62.

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

143. 10 C.F.R. § 2.309(f)(1)(vi).

144. *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)).

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an [Environmental Impact Statement (EIS)] to come up with more specifics and more areas of discussion that could have been included.”¹⁴⁵

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.¹⁴⁶ 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.¹⁴⁷

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

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

147. 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.* (Dewey-Burdock In Situ Uranium Recovery Facility), LBP-13-9,

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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.¹⁴⁸ As the

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).

148. 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);

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Board observed, the two contentions are “substantially identical.”¹⁴⁹ 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.”¹⁵⁰ For proof. Sierra Club 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.”¹⁵¹

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.”¹⁵²

DWM’s Contention 14 (Jan. 17, 2019) (Joint Petitioners’ Contention 14).

149. LBP-19-4, 89 NRC at 451.

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

151. 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).

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

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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.¹⁵³ 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.¹⁵⁴ 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.”¹⁵⁵

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

153. LBP-19-4, 89 NRC at 421 ,452.

154. *Id.* at 421.

155. *Id.* at 422.

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hold title to the waste.”¹⁵⁶ 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.¹⁵⁷ 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.¹⁵⁸

156. Sierra Club Appeal at 20-21.

157. 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).

158. Sierra Club Contention 30, at 1 (unnumbered).

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

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.¹⁶¹ 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.

159. 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).

160. 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).

161. *North Anna*, CLI-12-14, 75 NRC at 702.

*Appendix B***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.¹⁶² It proposed three contentions, all dealing with environmental justice concerns.¹⁶³ The Board rejected all three contentions, and AFES has appealed.¹⁶⁴

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 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."¹⁶⁵ 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."¹⁶⁶

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

163. *Id.* at 11-24.

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

165. AFES Petition at 11.

166. *Id.* at 21.

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The Board ruled proposed Contention 1 inadmissible because Holtec's ER complied with applicable NRC guidance on environmental justice evaluations in licensing actions.¹⁶⁷ 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.¹⁶⁸ 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.¹⁶⁹ But the Board found that Holtec did not identify differences greater than twenty percent and therefore did not discuss environmental justice concerns any further.¹⁷⁰ The Board also found that the ER "contains an analysis of location alternatives" including "six other potential sites that were analyzed and considered for suitability of the Holtec HI-STORE consolidated interim

167. 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).

168. LBP-19-4, 89 NRC at 455.

169. *Id.* (citing NUREG-1748 at C-5).

170. *Id.*

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storage facility's characteristics.”¹⁷¹ 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.¹⁷²

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.¹⁷³ 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.”¹⁷⁴

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

171. *Id.*

172. *Id.* (internal citations omitted).

173. AFES Appeal at 17.

174. *Id.* at 5, 13-15.

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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.¹⁷⁵ Eddy, New Mexico and Lea, New Mexico formed the ELEA to find a site within their jurisdiction and propose it to DOE.¹⁷⁶ 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.¹⁷⁷ Holtec states that it reviewed ELEA's analysis and determined that the selected site is the best for its own project.¹⁷⁸

The pertinent NRC Policy Statement in this case is the NRC's Environmental Justice Policy Statement.¹⁷⁹ 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

175. ER § 2.3.

176. *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).

177. ER § 2.3.

178. *Id.* at 2-16.

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

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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.¹⁸⁰ 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.”¹⁸¹

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 site, and that AFES had not disputed the information provided.¹⁸² 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

180. *See id.* at 52,048.

181. *See id.*

182. 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.

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was decried over thirty years ago . . . by the Licensing Board in [*LES*].”¹⁸³

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.¹⁸⁴ 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.”¹⁸⁵ 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.¹⁸⁶

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

184. *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.”).

185. *Louisiana Energy Services*, CLI-98-3, 47 NRC at 104.

186. 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

*Appendix B***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 perse discriminatory impact on New Mexico’s minority population, in comparison with the rest of the country.”¹⁸⁷ 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.”¹⁸⁸ 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.¹⁸⁹

same state, the Staff is not limited to considering only those sites 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).

187. AFES Petition at 22.

188. *Id.*

189. *Id.*

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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.”¹⁹⁰

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 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.”¹⁹¹ 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.¹⁹² Although AFES conceded that community support is not normally material to the findings NRC must make to issue a license, it argued

190. LBP-19-4, 89 NRC at 456.

191. AFES Appeal at 18.

192. AFES Petition at 23.

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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.”¹⁹³

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.¹⁹⁴ 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 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.¹⁹⁵ 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.¹⁹⁶ The

193. LBP-19-4, 89 NRC at 457.

194. AFES Appeal at 18-19.

195. 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.

196. *See* ER § 3.8.5.

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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.¹⁹⁷ Moreover, it examined each of Joint Petitioners' fourteen proposed contentions (except two) and found them inadmissible.¹⁹⁸

197. 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.1 1 (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)).

198. See LBP-19-4, 89 NRC at 426-52. Joint Petitioners' proposed Contention 8 was withdrawn and its proposed Contention13 was a motion to adopt Sierra Club's contentions,

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Joint Petitioners have appealed the Board's rulings with respect to standing as well as the admissibility of eight of its proposed contentions.¹⁹⁹ 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.²⁰⁰ 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

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.

199. *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).

200. *See* Joint Petitioners Petition at 27-31.

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the NHPA, which requires withholding information from the public where public disclosure could risk such harm.²⁰¹

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."²⁰² Rather, Joint Petitioners explain why they did not request access to the sensitive information in Appendix C even though they had the opportunity to do so.²⁰³ 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

201. 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).

202. LBP-19-4, 89 NRC at 427.

203. *See* Joint Petitioners Appeal at 20-21; LBP-19-4, 89 NRC at 427.

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decommission the CISF.²⁰⁴ 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.”²⁰⁵ Therefore, Joint Petitioners argued, Holtec’s financial assurance depends on contracts that are not lawful.²⁰⁶

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.²⁰⁷ The Board allowed the first amendment but rejected the substance of the claim.²⁰⁸ 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

204. See Joint Petitioners Petition at 31-36.

205. *Id.* at 32.

206. *Id.* at 32-33.

207. *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.

208. LBP-19-4, 89 NRC at 428-29.

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contract with Holtec to store nuclear power companies' spent fuel.²⁰⁹ The Board denied Joint Petitioners' second requested amendment because it sought to add arguments that could have been submitted with the original petition.²¹⁰ The Board found the second requested amendment was therefore not based upon new information.²¹¹ 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.²¹² The

209. *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).

210. LBP-19-4, 89 NRC at 429-432.

211. *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.

212. *Id.* at 433.

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Board also found that Holtec would not begin construction until it has sufficient contracts established.²¹³ 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.²¹⁴

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.*"²¹⁵ 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."²¹⁶ 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.²¹⁷

213. *Id.*

214. *Id.*

215. Joint Petitioners Petition at 34 (emphasis added).

216. Joint Petitioners Second Motion to Amend, Encl. at 10-11.

217. LBP-19-4, 89 NRC at 432.

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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.”²¹⁸ This NEPA argument is raised for the first time on appeal and is therefore untimely.²¹⁹ 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 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.²²⁰

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.”²²¹ The Board found that Holtec had provided financial assurance information for the first phase of the CISF project—the phase involving “activities

218. Joint Petitioners Appeal at 22.

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

220. *See* ER §§ 1.0, 4.0.

221. 10 C.F.R. § 72.22(e).

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for which the license is sought”—and that the information was not genuinely disputed by proposed Contention 2.²²²

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.²²³ Specifically, proposed Contention 3 alleged the ER was deficient because it does not consider that the tons of concrete used at the site for foundations and casks will become “radioactively activated” and that “replacement of the canisters themselves during the operational life of the CISF” will generate LLRW.²²⁴

222. *Id.*

223. Joint Petitioners Petition at 36-37.

224. *Id.* at 36.

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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.²²⁵ 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.²²⁶ 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

225. *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).

226. Staff Consolidated Response at 36.

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at the facility.²²⁷ The Board agreed with Holtec and the Staff and rejected proposed Contention 3 because Joint Petitioners had not met their burden in proffering facts or expert opinion supporting their claims.²²⁸

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. § 51.23.²²⁹ Holtec referred to the Continued Storage GEIS in its discussion of environmental impacts of decontamination and decommissioning.²³⁰ 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.”²³¹ 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

227. 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).

228. LBP-19-4, 89 NRC at 434.

229. *Id.* at 435 (citing Continued Storage GEIS at 5-48).

230. *See* ER § 4.9.5.

231. *See* Continued Storage GEIS at 5-48.

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of ISFSI decommissioning analyses contained in the Continued Storage GEIS.²³²

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.²³³ 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.”²³⁴ But it does not appear to us that the Board imposed an undue burden on the Joint Petitioners. 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.²³⁵ 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.²³⁶ The Board reasonably found that these unsupported assertions were insufficient to support an admissible contention.

232. LBP-19-4, 89 NRC at 435.

233. Joint Petitioners Appeal at 23.

234. *Id.*

235. Tr. at 161-62; *see* 10 C.F.R. § 2.309(f)(5).

236. 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.*

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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.”²³⁷ 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.²³⁸ The portion of the Continued Storage GEIS that the Board discusses refers to the expected consequences of temporary storage in an 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.²³⁹ 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 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.

237. Joint Petitioners Appeal at 24.

238. LBP-19-4, 89 NRC at 434.

239. *Id.* at 435 (citing Continued Storage GEIS at 5-48).

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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.²⁴⁰ 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.²⁴¹ 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.²⁴²

On appeal, Joint Petitioners do not dispute the Board's finding that Holtec's ER addresses site-

240. 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.

241. LBP-19-4, 89 NRC at 437.

242. *Id.*

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specific environmental effects (including effects from transportation and 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.”²⁴³ 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.”²⁴⁴

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.²⁴⁵ It generically assumes that a DTS would be built “in the long-term and indefinite timeframes,” which occur beyond the initial

243. Joint Petitioners Appeal at 25.

244. 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).

245. Continued Storage GEIS § 1.8.2.

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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.”²⁴⁶ 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 required, which would entail additional environmental review.²⁴⁷ 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.²⁴⁸ 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.

246. *Id.* § 2.1.4.

247. LBP-19-4, 89 NRC at 437.

248. *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.

*Appendix B***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.”²⁴⁹

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.²⁵⁰ 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 impermissible attack on NRC regulations and rulemaking-related generic determinations that the transportation cask is sufficient to prevent the leakage of any radioactive material.”²⁵¹

249. Joint Petitioners Petition at 61.

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

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

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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.²⁵²

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.²⁵³

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

252. LBP-19-4, 89 NRC at 444.

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

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necessarily supposes some breaches will occur.²⁵⁴ 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.”²⁵⁵

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 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.²⁵⁶ 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.²⁵⁷

254. Joint Petitioners Appeal at 26.

255. LBP-19-4, 89 NRC at 444.

256. Joint Petitioners Petition at 66-68.

257. *Id.* at 66.

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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.²⁵⁸

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.²⁵⁹ The Board found that Holtec's ER evaluated three representative routes—one from San Onofre to the proposed CISO, one from Maine Yankee to the proposed CISO, and one from the proposed CISO to Yucca Mountain—and that “the use of representative routes is in keeping with past NRC practice to evaluate transportation impacts.”²⁶⁰ The Board further found Joint Petitioners' concerns that emergency 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.²⁶¹

258. *Id.* at 67.

259. LBP-19-4, 89 NRC at 445.

260. *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).

261. *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).

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On appeal, Joint Petitioners largely repeat their arguments before the Board.²⁶² 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.²⁶³ 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

262. 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).

263. *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).

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of the environmental impacts resulting from a terrorist attack on the proposed CISF and on spent nuclear fuel shipments to the CISF.²⁶⁴ 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.²⁶⁵ 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.²⁶⁶ 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.²⁶⁷

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.²⁶⁸

264. 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.

265. 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).

266. *AmerGen Energy*, CLI-07-8, 65 NRC at 129.

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

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

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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*.²⁶⁹ 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.

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.²⁷⁰ 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, 2019.²⁷¹ 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

269. Joint Petitioners Appeal at 28.

270. *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).

271. 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).

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so.²⁷² 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.²⁷³

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.

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

272. 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).

273. 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).

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new proposed contention and Sierra Club Contention 30
for determination of their admissibility.

IT IS SO ORDERED.

For the Commission

Annette L. Vietti-Cook
Secretary of the Commission

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

*Appendix B***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.¹ 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.² 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.³

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

1. Sierra Club Petition at 60-67.

2. LBP-19-4, 89 NRC at 404-05.

3. Order at 29.

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to raise a material, genuine dispute with the application.⁴ 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.

4. 10 C.F.R. §2.309(f)(1)(iv), (vi).

**APPENDIX C — ORDER OF THE UNITED STATES
OF AMERICA, NUCLEAR REGULATORY
COMMISSION, DATED OCTOBER 29, 2018**

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Docket No. 72-1051

In the Matters of

HOLTEC INTERNATIONAL

(HI-STORE Consolidated Interim Storage Facility)

Docket No. 72-1050

INTERIM STORAGE PARTNERS LLC

(WCS Consolidated Interim Storage Facility)

ORDER

On July 16, 2018, the NRC provided notice in the *Federal Register* of Holtec International's application to construct and operate a consolidated interim storage facility for spent nuclear fuel.¹ Separately, on August 29, 2018, the NRC provided notice in the *Federal Register* of Interim Storage Partners' application to construct and operate

1. Holtec International HI-STORE Consolidated Interim Storage Facility for Interim Storage of Spent Nuclear Fuel, 83 Fed. Reg. 32,919 (July 16, 2018).

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a consolidated interim storage facility for spent nuclear fuel.²

On September 14, 2018, Beyond Nuclear, Fasken Land and Minerals, and Permian Basin Land and Royalty Owners filed motions to dismiss both the Holtec and Interim Storage Partners applications.³ These groups argue that the NRC cannot, as a threshold matter, issue licenses to Holtec or Interim Storage Partners because both applications are contrary to the Nuclear Waste Policy Act (NWPA). Specifically, the groups argue that both applications contemplate the storage of Department

2. Interim Storage Partner's Waste Control Specialists Consolidated Interim Storage Facility, 83 Fed. Reg. 44,070 (Aug. 29, 2018), corrected, 83 Fed. Reg. 44,608 (Aug. 31, 2018) (noting that the correct deadline to file intervention petitions is October 29, 2018). Interim Storage Partners is a joint venture of Orano USA and Waste Control Specialists.

3. Beyond Nuclear filed its own motion to dismiss. *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) (ADAMS Accession No. ML18257A318). Fasken Land and Minerals joined with Permian Basin Land and Royalty Owners to file a motion to dismiss that is substantially similar to Beyond Nuclear's motion. *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) (ML18257A330). Both the NRC Staff and respective applicants filed oppositions to the motions, and Beyond Nuclear, Fasken Land and Minerals, and Permian Basin Land and Royalty Owners then filed replies.

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of Energy-titled spent fuel in violation of various NWPA provisions.

The NRC’s regulations allow interested persons to file petitions to intervene and requests for hearing in which they can raise concerns regarding a particular license application. These regulations do not, however, provide for the filing of threshold “motions to dismiss” a license application; instead, interested persons must file petitions to intervene and be granted a hearing. I therefore *deny* both motions to dismiss on procedural grounds, without prejudice to the underlying merits of the legal arguments embedded within the motions.

Beyond Nuclear also filed hearing petitions in the Holtec and Interim Storage Partners proceedings that incorporated by reference the NWPA arguments that it raised in its motion to dismiss and identified those arguments as proposed contentions.⁴ I am separately referring these hearing requests—as well as other hearing requests challenging the applications—to the Atomic Safety and Licensing Board Panel (ASLBP) for the establishment of a Board to consider *all* hearing requests in accordance with the hearing procedures set forth in 10 C.F.R. §2.309. And, in accordance with 10 C.F.R. § 2.346(i), I am referring the motion from Fasken Land and

4. *Beyond Nuclear, Inc.’s Hearing Request and Petition to Intervene* (Sept. 14, 2018) (ML18257A324) (Holtec docket); *Beyond Nuclear, Inc.’s Hearing Request and Petition to Intervene* (Oct. 3, 2018) (ML18276A242) (Interim Storage Partners docket). Fasken Land and Minerals and Permian Basin Land and Royalty Owners have not filed related hearing petitions in either docket.

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Minerals and Permian Basin Land and Royalty Owners
to the ASLBP for consideration under § 2.309.

This Order is issued under my authority in 10 C.F.R.
§ 2.346(c), (g), (i), and (j).

IT IS SO ORDERED.

For the Commission

NRC SEAL

/RA/

Annette L. Vietti-Cook
Secretary of the Commission

Dated at Rockville, Maryland,
this 29th day of October 2018

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**APPENDIX D — ORDER OF THE UNITED STATES
COURT OF APPEALS FOR THE DISTRICT OF
COLUMBIA CIRCUIT, FILED AUGUST 5, 2025**

UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 20-1187
September Term, 2024
NRC-CLI-20-04
Consolidated with 20-1225, 21-1104, 21-1147

BEYOND NUCLEAR, INC.,

Petitioner,

v.

U.S. NUCLEAR REGULATORY COMMISSION
AND UNITED STATES OF AMERICA,

Respondents,

FASKEN LAND AND MINERALS, LTD., *et al.*,

Intervenors.

Filed August 5, 2025

BEFORE: Srinivasan, Chief Judge; Henderson,
Millett, Pillard, Wilkins, Katsas,
Rao, Walker, Childs, Pan, and Garcia,
Circuit Judges

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ORDER

Upon consideration of the joint motion to remove the petitions from abeyance, Beyond Nuclear Inc.'s petition for rehearing en banc, and the absence of a request by any member of the court for a vote, it is

ORDERED that the joint motion be granted. It is

FURTHER ORDERED that the petition be denied.

Per Curiam

FOR THE COURT:
Clifton B. Cislak, Clerk

By: /s/
Daniel J. Reidy
Deputy Clerk

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**APPENDIX E — MEMORANDUM AND
ORDER OF THE UNITED STATES NUCLEAR
REGULATORY COMMISSION, DATED MAY 7, 2019**

89 NRC 353 (2019)

LBP-19-4

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Docket No. 72-1051-ISFSI
(ASLBP No. 18-958-01-ISFSI-BD01)

IN THE MATTER OF HOLTEC INTERNATIONAL
(HI-STORE CONSOLIDATED INTERIM
STORAGE FACILITY)

May 7, 2019

Before Administrative Judges:

Paul S. Ryerson, Chairman
Nicholas G. Trikouros
Dr. Gary S. Arnold

This proceeding concerns Holtec International's application to construct and operate a consolidated interim storage facility for spent nuclear fuel in Lea County, New Mexico. The Board considered petitions to intervene and requests for a hearing from six petitioners: (1) Beyond Nuclear, Inc. (Beyond Nuclear); (2) Sierra Club; (3) Don't Waste Michigan, Citizens for Alternatives to Chemical

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Contamination, Nuclear Energy Information Service, Public Citizen, Inc., San Luis Obispo Mothers for Peace, and Nuclear Issues Studies Group (collectively, Joint Petitioners); (4) Fasken Land and Minerals, Ltd. and Permian Basin Land and Royalty Owners (together, Fasken); (5) Alliance for Environmental Strategies (AFES); and (6) NAC International Inc. (NAC). The Board determined that Beyond Nuclear, Sierra Club, and Fasken demonstrated standing, but that no petitioners proffered an admissible contention.

RULES OF PRACTICE: INTERVENTION

To intervene as a party in an adjudicatory proceeding, a petitioner must (1) establish it has standing; and (2) proffer at least one admissible contention.

RULES OF PRACTICE: STANDING

The Commission directs the Board to construe the petition in favor of the petitioner when determining whether a petitioner has demonstrated standing.

RULES OF PRACTICE: STANDING (BURDEN)

It is each petitioner's burden to demonstrate that standing requirements are met.

RULES OF PRACTICE: STANDING

A petitioner may show traditional standing by demonstrating that an individual or organization has

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suffered or might suffer a concrete and particularized injury that is: (1) fairly traceable to the challenged action; (2) likely redressable by a favorable decision; and (3) arguably within the zone of interests protected by the governing statutes.

**RULES OF PRACTICE: STANDING
(PROXIMITY PLUS PRESUMPTION)**

Although the NRC applies traditional standing concepts, in certain proceedings the Commission applies simplified standing requirements for individuals who reside within, or have contacts with, a geographic zone of potential harm. The pertinent zone in power reactor construction and operating license proceedings is the area within a 50-mile radius of the site. The relevant distance from a consolidated interim storage facility is likely less than 50 miles because such a storage facility is essentially a passive structure and therefore has less chance of widespread radioactive release.

**RULES OF PRACTICE: STANDING
(REPRESENTATIONAL)**

An organization may represent the interests of its members using representational standing if it can: (1) show that the interests it seeks to protect are germane to its own purpose; (2) identify at least one member who qualifies for standing in his or her own right; (3) show that it is authorized by that member to request a hearing on his or her behalf; and (4) show that neither the claim asserted nor the relief requested requires an individual member's participation in the organization's legal action.

*Appendix E***RULES OF PRACTICE: CONTENTIONS
(ADMISSIBILITY)**

An admissible contention must: (1) state the specific legal or factual issue to be raised or controverted; (2) provide a brief explanation for the basis of the contention; (3) demonstrate that the issue raised is within the proceeding's scope; (4) demonstrate that the issue raised is material to the findings the NRC must make to support the action that is involved in the proceeding; (5) concisely state the alleged facts or expert opinions that support the petitioner's position and on which the petitioner intends to rely at the hearing, including references to the specific sources and documents on which the petitioner intends to rely; and (6) show that a genuine dispute exists on a material issue of law or fact by referring to specific portions of the application that the petitioner disputes or, if the application is alleged to be deficient, by identifying such deficiencies and the supporting reasons for this allegation.

**RULES OF PRACTICE: CONTENTIONS
(ADMISSIBILITY)**

A petitioner may not challenge an NRC rule or regulation in a contention unless the petitioner seeks and obtains a waiver from the Commission in accordance with 10 C.F.R. § 2.335.

*Appendix E***RULES OF PRACTICE: CONTENTIONS
(ADMISSIBILITY)**

The contention admissibility standards are strict by design. Over time, the Commission strengthened the admissibility standards to afford evidentiary hearings only to those who proffer at least some minimal factual and legal foundation in support of their contentions. Failure to satisfy even one of the contention admissibility standards requires the Board to reject the contention.

**RULES OF PRACTICE: AMENDMENT OF
CONTENTIONS**

A petitioner who seeks to amend its original contention or proffer a new one after the initial deadline for filing contentions must meet the good cause standard in 10 C.F.R. § 2.309. Good cause exists if the petitioner can show: (1) the information upon which the amended or new contention is based was not previously available; (2) the information upon which the filing is based is materially different from information previously available; and (3) the filing has been submitted in a timely fashion based on the availability of the subsequent information. Previously available information that is newly acquired by the petitioner does not constitute good cause.

**RULES OF PRACTICE: CONTENTIONS
(ENVIRONMENTAL)**

All contentions must be based on documents or other information available at the time the petition is to be filed.

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Petitioners have an obligation to raise issues in licensing proceedings as soon as the information becomes available to them. For environmental contentions, petitioners must file contentions based on the applicant's Environmental Report.

**NATIONAL ENVIRONMENTAL POLICY ACT:
ENVIRONMENTAL IMPACT STATEMENT**

The National Environmental Policy Act mandates that federal agencies pre-prepare an environmental impact statement before undertaking any major federal actions significantly affecting the quality of the human environment.

**NATIONAL ENVIRONMENTAL POLICY ACT:
HARD LOOK**

The National Environmental Policy Act requires agencies to take a hard look at environmental consequences of the proposed action, and imposes a duty upon the agency to both consider every significant aspect of the environmental impact of a proposed action and inform the public of its analysis and conclusion.

**NATIONAL ENVIRONMENTAL POLICY ACT:
HARD LOOK**

The hard look is subject to a rule of reason, meaning that the agency need not perform analyses concerning events that would be considered worst case scenarios involving the project, or those considered remote and

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highly speculative. The National Environmental Policy Act does not necessitate certainty or precision, nor does it mandate particular results from the agency. Rather, it requires an estimate of anticipated (not unduly speculative) impacts from the agency.

ADJUDICATORY PROCEEDINGS: SCOPE OF REVIEW

The NRC is not in the business of regulating the market strategies of licensees or determining whether market strategies warrant commencing operations.

ENVIRONMENTAL JUSTICE

The NRC considers social and economic impacts ancillary to environmental impacts: that is, environmental justice concerns. Environmental justice is a federal policy established by Executive Order 12898 in 1994 directing federal agencies to identify and address disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.

RULES OF PRACTICE: PARTICIPATION BY AN INTERESTED STATE OR LOCAL GOVERNMENT

Pursuant to 10 C.F.R. § 2.315(c), a local governmental body that is not admitted as a party under 10 C.F.R. § 2.309 shall, upon request, be permitted a reasonable opportunity to participate in a hearing as an interested non-party. Section 2.315(c) does not require a demonstration

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of standing, but does require identification of those contentions on which the non-party intends to participate.

[TABLE INTENTIONALLY OMITTED]

MEMORANDUM AND ORDER
(Ruling on Petitions for Intervention and
Requests for Hearing)

Before the Board are six petitions to intervene and requests for a hearing concerning a license application by Holtec International (Holtec) to construct and operate a consolidated interim storage facility for spent nuclear fuel in Lea County, New Mexico. The petitioners are: (1) Beyond Nuclear, Inc. (Beyond Nuclear); (2) Sierra Club; (3) Don't Waste Michigan, Citizens for Alternatives to Chemical Contamination, Nuclear Energy Information Service, Public Citizen, Inc., San Luis Obispo Mothers for Peace, and Nuclear Issues Studies Group (collectively, Joint Petitioners); (4) Fasken Land and Minerals, Ltd. and Permian Basin Land and Royalty Owners (together, Fasken); (5) Alliance for Environmental Strategies (AFES); and (6) NAC International Inc. (NAC).

Because Holtec has revised its license application in response to petitioners' initial contentions, both the Board's and the NRC Staff's views as to their admissibility have changed over time. It appears the NRC Staff now asserts that two of the six hearing requests should be granted because, in its view (1) Beyond Nuclear has demonstrated standing and its only proffered contention is admissible; and (2) Sierra Club has demonstrated standing

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and has proffered two admissible contentions (Sierra Club Contentions 1 and 4).¹ Holtec opposes the standing of all six petitioners and asserts that none of their proffered contentions is admissible.

The Board concludes that Beyond Nuclear, Sierra Club, and Fasken have demonstrated standing. However, the Board denies Beyond Nuclear's petition, because its sole contention no longer identifies a genuine dispute with Holtec's license application. Likewise, neither Sierra Club nor Fasken has proffered an admissible contention and their petitions are therefore denied. Although the Board does not rule on its standing, AFES has not proffered an admissible contention and its petition is denied for that reason. Joint Petitioners and NAC have neither demonstrated standing nor proffered an admissible contention. Because no petitioner has both demonstrated standing and proffered an admissible contention, this proceeding is terminated.

1. See NRC Staff's Consolidated Response to Petitions to Intervene and Requests for Hearing Filed by [AFES], [Beyond Nuclear], [Joint Petitioners], [NAC], and the Sierra Club (Oct. 9, 2018) at 65-67, 72-74 [hereinafter NRC Staff Consol. Answer]; NRC Staff Answer to Motions to Amend Contentions Regarding Federal Ownership of Spent Fuel (Feb. 19, 2019) [hereinafter NRC Staff Answer to Beyond Nuclear and Fasken Motion]. *But see* Tr. at 331-35 (NRC Staff stating at oral argument that issues identified in Beyond Nuclear's contention and in Sierra Club Contention 1 appeared "to have been cured for the present time"). Initially, the Staff also deemed Sierra Club Contention 8 to be admissible (NRC Staff Consol. Answer at 79), but announced at oral argument that it no longer was taking a position on the admissibility of that contention. Tr. at 261.

*Appendix E***I. BACKGROUND**

The nation's growing inventory of spent nuclear fuel from commercial nuclear power reactors is generally stored at the reactor sites where it was generated, initially immersed in pools of water and then, after a suitable delay, encased in protective dry-cask storage systems.² What to do with the spent fuel "has vexed scientists, Congress, and regulatory agencies for the last half-century."³ After rejecting early disposal proposals that ranged from "burying nuclear waste in polar ice caps to rocketing it to the sun," a consensus appeared to settle on deep geologic burial in a permanent repository.⁴ Congress passed the Nuclear Waste Policy Act of 1982 (NWPA),⁵ which ultimately led the U.S. Department of Energy (DOE) to submit an application to the NRC for authorization to construct a geologic repository at Yucca Mountain, Nevada.⁶ However, shortly after DOE's application was

2. U.S. Gov't Accountability Off., GAO-17-340, Commercial Nuclear Waste: Resuming Licensing of the Yucca Mountain Repository Would Require Rebuilding Capacity at DOE and NRC, Among Other Key Steps at 1 (2017).

3. *Nuclear Energy Inst. v. EPA*, 373 F.3d 1251, 1257 (D.C. Cir. 2004).

4. *Id.*

5. Nuclear Waste Policy Act of 1982, 42 U.S.C. § 10101 (1983) [hereinafter NWPA].

6. See Letter from Edward F. Sproat III, Director, DOE Office of Civilian Radioactive Waste Management, to Michael F. Weber, Director, NRC Office of Nuclear Material Safety and Safeguards (NMSS) (June 3, 2008) (ADAMS Accession No. ML081560407).

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submitted in June 2008, Congress stopped funding the Yucca Mountain project, and a pending adjudication before an NRC licensing board was suspended in September 2011.⁷ To date, more than seven years later, Congress has provided no new funding for a permanent nuclear waste repository at Yucca Mountain.

The Holtec proposal before the Board is not for another permanent repository, but for what is acknowledged by its very name to be a temporary solution: a consolidated interim storage facility (CISF). While a license to construct and operate Yucca Mountain would have required DOE to demonstrate a reasonable expectation that it would meet specified performance standards throughout the “period of geologic stability,” defined to “end 1 million years after disposal,”⁸ the licensing requirements for an interim storage facility under 10 C.F.R. Part 72 apply to renewable terms of no more than “40 years from the date of issuance.”⁹ On March 30, 2017, Holtec submitted an application to the NRC to construct and operate a CISF.¹⁰ Holtec intends to construct and operate the first phase of its CISF on approximately 1,000 acres of land

7. *U.S. Department of Energy* (High-Level Waste Repository), LBP-11-24, 74 NRC 368 (2011).

8. 10 C.F.R. § 63.302.

9. *Id.* § 72.42(a).

10. See Letter from Kimberly Manzione, Holtec Licensing Manager, to Michael Layton, Director, NRC Division of Spent Fuel Management, NMSS (Mar. 30, 2017) (ADAMS Accession No. ML17115A418).

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in Lea County, New Mexico.¹¹ Holtec seeks to store 8,680 metric tons of uranium (MTUs) in two different models of Holtec canisters, up to 500 canisters in total, for a license period of 40 years.¹² On March 19, 2018, the NRC accepted and docketed Holtec's application.¹³ If its initial license is granted, Holtec plans "19 subsequent expansion phases to be completed over the course of 20 years," with each phase necessitating a license amendment request.¹⁴

Holtec's Environmental and Safety Analysis Reports demonstrate marked differences between its proposed facility and a permanent waste repository, such as Yucca Mountain. Holtec's project is substantially less ambitious. For example, Yucca Mountain was to be constructed to comply with performance standards for one million years, but Holtec's Environmental Report anticipates storage at its proposed facility for 120 years (40 years for initial licensing, plus 80 years of potential extensions), and acknowledges that this 120 year period could be reduced if a permanent geologic repository were finally

11. [Holtec] HI-STORE [CISF] Environmental Report, at 14 (rev. 5 Mar. 2019) [hereinafter ER]. The petitioners' originally-filed contentions in this proceeding are based on the earlier version of Holtec's Environmental Report. *See* [Holtec] HI-STORE [CISF] Environmental Report (rev. 1 Dec. 2017).

12. *See* ER at 14.

13. *See* Holtec International's HI-STORE Consolidated Interim Storage Facility for Interim Storage of Spent Nuclear Fuel, 83 Fed. Reg. 12,034 (Mar. 19, 2018).

14. ER at 14.

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licensed and began operating.¹⁵ While Yucca Mountain was statutorily authorized to store 70,000 metric tons of high-level radioactive waste,¹⁶ Holtec's initial license application requests permission to store up to 8,680 MTUs.¹⁷ While the Yucca Mountain repository would be constructed at least 700 feet below the surface,¹⁸ Holtec's license application contemplates a maximum excavation depth of 25 feet.¹⁹ And all parts of the Holtec storage system – both for transportation and storage – would use canisters and casks that have been separately approved by the NRC, and hence are not part of Holtec's license application for the Lea County storage facility.²⁰

15. *Id.*

16. 42 U.S.C. § 10134(d).

17. ER at 14. Holtec's Environmental Report, however, analyzes the potential full 20-phase capacity of up to 100,000 MTUs.

18. U.S. DOE, 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 at S-7 (June 2008).

19. [Holtec] HI-STORE [CISF] Safety Analysis Report at 30 (rev. 0F Jan. 2019) [hereinafter SAR]. The petitioners' originally-filed contentions in this proceeding are based on the earlier version of Holtec's SAR. *See* [Holtec] HI-STORE [CISF] Safety Analysis Report (rev. 0A Oct. 2017).

20. *See* 10 C.F.R. § 72.214 (Certificate Number 1040). Holtec's license application proposes the exclusive use of the HI-STORM UMAX canister storage system.

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On July 16, 2018, the NRC published notice in the *Federal Register* of an opportunity to request a hearing and petition to intervene by September 14, 2018.²¹ On September 12, 2018, AFES filed its petition to intervene and request for a hearing.²² On September 14, 2018, NAC, Joint Petitioners, Beyond Nuclear, and Sierra Club timely filed their petitions.²³ The NRC also received five petitions from local governmental bodies to participate in the proceeding.²⁴

21. Holtec International's HI-STORE Consolidated Interim Storage Facility for Interim Storage of Spent Nuclear Fuel, 83 Fed. Reg. 32,919, 32,919 (July 16, 2018) [hereinafter Notice of Opportunity to Request a Hearing].

22. [AFES'] Petition to Intervene and Request for Hearing (Sept. 12, 2018) at 1 [hereinafter AFES Pet.].

23. Petition to Intervene and Request for Hearing of NAC International, Inc. (Sept. 14, 2018) [hereinafter NAC Pet.]; [Joint Petitioners'] Petition to Intervene and Request for an Adjudicatory Hearing (Sept. 14, 2018) [hereinafter Joint Pet'rs Pet.]; Beyond Nuclear, Inc.'s Hearing Request and Petition to Intervene (Sept. 14, 2018) [hereinafter Beyond Nuclear Pet.]; Petition to Intervene and Request for Adjudicatory Hearing by Sierra Club (Sept. 14, 2018) [hereinafter Sierra Club Pet.].

24. Petition by Eddy-Lea Energy Alliance to Participate as an Interested Local Governmental Body (Sept. 4, 2018) [hereinafter ELEA Pet.]; Corrected Petition by the Board of Commissioners for Lea County, New Mexico to Participate as an Interested Local Governmental Body (Sept. 12, 2018) [hereinafter Lea Cty. Pet.]; Petition by the City of Carlsbad, New Mexico to Participate as an Interested Local Governmental Body (Sept. 12, 2018) [hereinafter Carlsbad Pet.]; Petition by the City of Hobbs to Participate as an Interested Local Governmental Body (Sept. 13, 2018) [hereinafter Hobbs Pet.]; Petition by Eddy County to Participate as an

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On September 14, 2018, the Commission received motions to dismiss the proceeding from Beyond Nuclear and Fasken.²⁵ On September 24, 2018, Holtec and the NRC Staff filed answers opposing both motions to dismiss.²⁶ Beyond Nuclear and Fasken filed replies.²⁷ Although the Secretary of the Commission denied both motions on

Interested Local Governmental Body (Sept. 13, 2018) [hereinafter Eddy Cty. Pet.].

25. Beyond Nuclear, Inc.'s Motion to Dismiss Licensing Proceedings for Hi-Store [CISF] and WCS [CISF] for Violation of the [NWP] (Sept. 14, 2018) [hereinafter Beyond Nuclear Motion to Dismiss]; Motion of [Fasken] to Dismiss Licensing Proceedings for Hi-Store [CISF] and WCS [CISF] (Sept. 14, 2018) [hereinafter Fasken Motion to Dismiss].

26. [Holtec's] Answer Opposing Beyond Nuclear Motion to Dismiss Licensing Proceeding for HI-STORE [CISF] (Sept. 24, 2018) [hereinafter Holtec Answer to Beyond Nuclear Motion to Dismiss]; [Holtec's] Answer Opposing [Fasken] Motion to Dismiss Licensing Proceeding for HI-STORE [CISF] (Sept. 24, 2018) [hereinafter Holtec Answer to Fasken Motion to Dismiss]; NRC Staff's Response to Motions to Dismiss Licensing Proceedings (Sept. 24, 2018) [hereinafter NRC Staff Response to Motions to Dismiss].

27. Beyond Nuclear's Reply to [Holtec], and NRC Staff Responses to Beyond Nuclear's Motion to Dismiss (Sept. 28, 2018) [hereinafter Beyond Nuclear Reply on Motion to Dismiss]; Reply of Movants Fasken and PBLRO to Staff's Response to Motions to Dismiss (Sept. 28, 2018) [hereinafter Fasken Reply to NRC Staff on Motion to Dismiss]; Reply of [Fasken] to [Holtec's] Response to Motion to Dismiss (Sept. 28, 2018) [hereinafter Fasken Reply to Holtec on Motion to Dismiss].

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procedural grounds,²⁸ it observed that Beyond Nuclear's concurrently-filed petition incorporated arguments by reference contained in its motion to dismiss.²⁹ The Secretary, therefore, referred both Beyond Nuclear's and Fasken's motions to the Board to be considered under 10 C.F.R. § 2.309.³⁰

28. Order of the Secretary, [Holtec] (HI-STORE [CISF]) [and] Interim Storage Partners LLC (WCS [CISF]) Docket Nos. 72-1051 & 72-1050 (Oct. 29, 2018) (unpublished) [hereinafter Order Denying Motions to Dismiss].

29. *Id.* at 2.

30. *Id.* at 2-3. On December 27, 2018, Beyond Nuclear petitioned the United States Court of Appeals for the District of Columbia Circuit to review the Secretary's Order, which denied Beyond Nuclear's Motion to Dismiss and referred it as a petition to this Board. That appeal remains pending, although Beyond Nuclear has requested it be held in abeyance pending the outcome of this proceeding. *See* Notice of Beyond Nuclear's Petition for Review of NRC Order in D.C. Circuit U.S. Court of Appeals, Docket Nos. 72-1050/1051 (Jan. 16, 2019).

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On October 9, 2018, Holtec³¹ and the NRC Staff³² filed answers to the petitions. Holtec opposed the standing of all petitioners and the admission of all contentions. The NRC Staff supported the standing of two petitioners (Beyond Nuclear and Sierra Club) and the admissibility of four of their contentions (Beyond Nuclear's sole contention and Sierra Club Contentions 1, 4, and 8).³³ On October 16, 2018, petitioners AFES, Beyond Nuclear, Joint Petitioners, NAC, and Sierra Club filed replies.³⁴ On December 3, 2018,

31. [Holtec's] Answer Opposing [AFES'] Petition to Intervene and Request for Adjudicatory Hearing on [Holtec's] HI-STORE [CISF] Application (Oct. 9, 2018) [hereinafter Holtec Answer to AFES]; [Holtec's] Answer Opposing Beyond Nuclear's Hearing Request and Petition to Intervene on [Holtec's] HI-STORE [CISF] Application (Oct. 9, 2018) [hereinafter Holtec Answer to Beyond Nuclear]; [Holtec's] Answer Opposing [NAC's] Petition to Intervene and Request for Hearing on [Holtec's] HI-STORE [CISF] Application (Oct. 9, 2018) [hereinafter Holtec Answer to NAC]; [Holtec's] Answer Opposing Sierra Club's Petition to Intervene and Request for Adjudicatory Hearing on [Holtec's] HI-STORE [CISF] Application (Oct. 9, 2018) [hereinafter Holtec Answer to Sierra Club]; [Holtec's] Answer Opposing [Joint Petitioners'] Petition to Intervene and Request for an Adjudicatory Hearing on [Holtec's] HI-STORE [CISF] Application (Oct. 9, 2018) [hereinafter Holtec Answer to Joint Pet'rs].

32. NRC Staff Consol. Answer.

33. The NRC Staff also did not oppose the admissibility of NAC Contention 3, but deemed it to be moot inasmuch as the Staff opposed NAC's standing.

34. Consolidated Response by Petitioner [AFES] to Answers by [Holtec] and NRC Staff (Oct. 16, 2018) [hereinafter AFES Reply]; Beyond Nuclear's Reply to Oppositions to Hearing Request and Petition to Intervene (Oct. 16, 2018) [hereinafter Beyond

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Holtec and the NRC Staff filed supplemental responses opposing consideration of Fasken’s motion to dismiss as a petition.³⁵ Fasken filed a reply on December 10, 2018.³⁶

The Board heard oral argument on January 23 and 24, 2019 in Albuquerque, New Mexico. Numerous motions proffering new and amended contentions that were filed after oral argument are addressed *infra*.

II. STANDING ANALYSIS

In a licensing proceeding such as this, the NRC must grant a hearing “upon the request of any person whose interest may be affected by the proceeding.”³⁷ However, to

Nuclear Reply]; Combined Reply of [Joint Petitioners] to Holtec and NRC Answers (Oct. 16, 2018) [hereinafter Joint Pet’rs Reply]; Reply in Support of Petition to Intervene and Request for Hearing of [NAC] (Oct. 16, 2018) [hereinafter NAC Reply]; Sierra Club’s Reply to Answers Filed by [Holtec] and NRC Staff (Oct. 16, 2018) [hereinafter Sierra Club Reply].

35. [Holtec’s] Answer Opposing [Fasken’s] Motion/Petition to Intervene on [Holtec’s] HI-STORE [CISF] Application (Dec. 3, 2018) [hereinafter Holtec Supplemental Answer to Fasken Motion to Dismiss]; NRC Staff’s Supplemental Response to Motion to Dismiss by [Fasken] (Dec. 3, 2018) [hereinafter NRC Staff Supplemental Answer to Fasken Motion to Dismiss].

36. Reply of [Fasken] to Holtec’s Answer Opposing Movants’ Motion to Dismiss/Petition to Intervene (Dec. 10, 2018) [hereinafter Fasken Reply to Holtec]; Reply of [Fasken] to NRC Staff’s Supplemental Response and Opposition to Motion to Dismiss (Dec. 10, 2018) [hereinafter Fasken Reply to NRC Staff].

37. 42 U.S.C. § 2239(a)(1)(A).

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determine whether a petitioner has a sufficient interest, the Commission applies contemporaneous judicial concepts of standing.³⁸ Although the Commission instructs us to construe the petition in favor of the petitioner when we determine standing,³⁹ it is nonetheless each petitioner's burden to demonstrate that standing requirements are met.⁴⁰ As relevant here, a petitioner may satisfy this burden in one of three ways.

First, a petitioner may show traditional standing. This requires a showing that a person or organization has suffered or might suffer a concrete and particularized injury that is: (1) fairly traceable to the challenged action; (2) likely redressable by a favorable decision; and (3) arguably within the zone of interests protected by the governing statutes⁴¹ – here primarily the Atomic Energy Act (AEA) and the National Environmental Policy Act (NEPA).⁴²

38. *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-15-25, 82 NRC 389, 394 (2015).

39. *Id.*

40. *See Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 and 2), CLI-00-5, 51 NRC 90, 98 (2000). Section 2.309(d) of 10 C.F.R. specifies information that a petitioner should include in its petition to establish standing, but does not set the standard the Board must apply when deciding whether that information is sufficient.

41. *Calvert Cliffs 3 Nuclear Project, LLC, and UniStar Nuclear Operating Services, LLC* (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-09-20, 70 NRC 911, 915 (2009).

42. 42 U.S.C. §§ 2011-2297; *id.* §§ 4321-4347.

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Second, a petitioner may take advantage of proximity presumptions the Commission has created to simplify standing requirements for individuals who reside within, or have frequent contacts with, a geographic zone of potential harm. In proceedings that involve construction or operation of a nuclear power plant, the zone is deemed to be the area within a 50-mile radius of the site.⁴³ In other proceedings, such as this one, a “proximity plus” standard is applied on a “case-by-case basis, taking into account the nature of the proposed action and the significance of the radioactive source.”⁴⁴ The smaller the risk of offsite consequences, the closer a petitioner must be to be realistically threatened. Although the Commission has not established a clear standard, the relevant distance from a consolidated interim storage facility is likely less than 50 miles because such a storage facility “is essentially a passive structure rather than an operating facility, and . . . therefore [has] less chance of widespread radioactive release.”⁴⁵ If no “obvious potential” for harm

43. *PPL Bell Bend, LLC* (Bell Bend Nuclear Power Plant), CLI-10-7, 71 NRC 133, 138-39 (2010).

44. *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 116-17 (1995). See *Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 75 n.22 (1994) (“[A] presumption based on geographic proximity is not confined solely to Part 50 reactor licenses, but is also applicable to materials cases where the potential for offsite consequences is obvious.”).

45. *Consumers Energy Co.* (Big Rock Point Independent Spent Fuel Storage Installation), CLI-07-19, 65 NRC 423, 426 (2007).

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exists,⁴⁶ the petitioner has the “burden to show . . . specific and plausible means” for how the proposed action will affect them.⁴⁷ “[C]onclusory allegations about potential radiological harm” are not sufficient.⁴⁸

Third, like most petitioners here, an organization may try to establish representational standing based on the standing of one or more individual members. To establish representational standing, an organization must: (1) show that the interests it seeks to protect are germane to its own purpose; (2) identify at least one member who qualifies for standing in his or her own right; (3) show that it is authorized by that member to request a hearing on his or her behalf; and (4) show that neither the claim asserted nor the relief requested requires an individual member’s participation in the organization’s legal action.⁴⁹

A. Beyond Nuclear

Beyond Nuclear states that it is “a nonprofit, nonpartisan membership organization that aims to educate and activate the public about the connections between nuclear power and nuclear weapons and the need to abolish both to protect public health and safety, prevent

46. *See Sequoyah Fuels*, CLI-94-12, 40 NRC at 75 n.22.

47. *Nuclear Fuel Services, Inc.* (Erwin, Tennessee), CLI-04-13, 59 NRC 244, 248 (2004).

48. *Id.*

49. *Consumers Energy Co.* (Palisades Nuclear Plant), CLI-07-18, 65 NRC 399, 409 (2007).

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environmental harms, and safeguard our future.”⁵⁰ Of especial relevance, “Beyond Nuclear advocates for an end to the production of nuclear waste and for securing the existing reactor waste in hardened on-site storage until it can be permanently disposed of in a safe, sound, and suitable underground repository.”⁵¹

Beyond Nuclear claims standing on several different theories,⁵² but we need consider only one. Beyond Nuclear submits the declarations of several members who live near the proposed facility and authorize Beyond Nuclear to represent them.⁵³ One such member – Keli Hatley – lives with her husband and small children just one mile away from the proposed facility.⁵⁴ Indeed, Ms. Hatley’s cattle currently range on the land where the facility would be constructed, and she rides there on horseback to manage them.⁵⁵ If the storage facility is built, Ms. Hatley expects she would have to ride along its fence line.⁵⁶

50. Beyond Nuclear Pet. at 2.

51. *Id.*

52. *See* Beyond Nuclear Pet. at 2-10.

53. *See id.*, Ex. 01, Decl. of Daniel C. Berry, III (Sept. 14, 2018); *id.*, Ex. 03, Decl. of Keli Hatley; *id.*, Ex. 05, Decl. Margo Smith.

54. *See id.*, Ex. 03, Decl. of Keli Hatley ¶ 3.

55. *Id.* ¶ 5.

56. *Id.*

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The NRC Staff does not oppose Beyond Nuclear's claim of standing,⁵⁷ and the Board agrees. Ms. Hatley's residence is well within the distance that has been found sufficient in other proceedings that involved even smaller spent fuel facilities.⁵⁸

Holtec opposes Beyond Nuclear's standing⁵⁹ because, Holtec asserts, Beyond Nuclear's members have not provided "any plausible explanation of how radionuclides or radiation from inside sealed metal canisters emplaced below ground in steel and concrete storage vaults" could reach them.⁶⁰ But the purpose of proximity presumptions is to eliminate the need for such factual demonstrations: "When the presumption of having the requisite interest is applied, it becomes unnecessary to establish a causal

57. NRC Staff Consol. Answer at 8.

58. See, e.g., *Pacific Gas and Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), LBP-02-23, 56 NRC 413, 429 (2002) (ruling 17 miles sufficient and citing other NRC approvals of standing for petitioners within 10 miles of proposed spent fuel pool expansions); *Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant), LBP-99-25, 50 NRC 25, 29-31 (1999) (according standing to a petitioner 17 miles from spent fuel pool); *Florida Power & Light Co.* (St. Lucie Nuclear Power Plant, Unit 1), LBP-88-10A, 27 NRC 452, 454-55 (1988), *aff'd*, ALAB-893, 27 NRC 627 (1988) (conceding standing of individual living within 10 miles of spent fuel pools); *Northeast Nuclear Energy Co.* (Millstone Nuclear Power Station, Unit 3), LBP-00-2, 51 NRC 25, 28 (2000) (granting standing to individual with part-time residence located 10 miles from spent fuel pool).

59. Holtec Answer to Beyond Nuclear at 13-18.

60. *Id.* at 17.

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relationship between the claimed injury and the requested action.”⁶¹

If Ms. Hatley lacks standing to challenge the storage of much of the nation’s spent nuclear fuel (potentially up to 100,000 metric tons) one mile from her home, one has difficulty imagining who would have standing. Indeed, at oral argument, Holtec’s counsel declined to speculate whether *anyone* might have standing to challenge its proposed storage facility under Holtec’s demanding interpretation of the requirements.⁶²

Beyond Nuclear has demonstrated standing. However, because Beyond Nuclear has not proffered an admissible contention, as discussed *infra*, its request for an evidentiary hearing must nonetheless be denied.

B. Sierra Club

Sierra Club claims to be the oldest and largest environmental organization in the United States, and to be especially concerned about the environmental consequences of nuclear power and nuclear waste.⁶³ Like Beyond Nuclear, Sierra Club submits supporting declarations from several members who live in the vicinity

61. *Northern States Power Co.* (Pathfinder Atomic Plant), LBP-90-3, 31 NRC 40, 45 (1990); *see also Calvert Cliffs*, CLI-09-20, 70 NRC at 917 n.27.

62. Tr. at 272-73.

63. Tr. at 41.

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of the proposed facility.⁶⁴ One member – Danny Berry – states that he lives less than 10 miles away and owns and operates a ranch just three miles away.⁶⁵

As discussed *supra*, these distances are well within the limits that have been found to confer standing to challenge much smaller storage facilities, and the NRC Staff agrees that Sierra Club has established standing.⁶⁶ And again, we are not persuaded by Holtec’s argument⁶⁷ that, even to commence a challenge, 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 just how radiation might reach them.

Sierra Club has demonstrated standing. However, because Sierra Club has not proffered an admissible contention, as discussed *infra*, its request for an evidentiary hearing must nonetheless be denied.

64. See Sierra Club Pet., Decl. of Danny Berry; *id.*, Decl. of Danielle Marie Dyer; *id.*, Decl. of Deanna Maria Dyer; *id.*, Decl. of Gordon Wayne Dyer; *id.*, Decl. of Martha A. Singleterry.

65. See Sierra Club. Pet., Decl. of Danny Berry ¶ 3. Because Mr. Berry submitted similar declarations on behalf of both Sierra Club and Beyond Nuclear, we consider his declaration only in connection with the standing of Sierra Club. See *Big Rock Point ISFSI*, CLI-07-19, 65 NRC at 426 (explaining that “multiple representations might lead to confusion”).

66. NRC Staff Consol. Answer at 8.

67. Holtec Answer to Sierra Club at 14-15.

*Appendix E***C. Joint Petitioners**

Joint Petitioners are comprised of seven different organizations, each presenting a similar standing issue.⁶⁸ Although Public Citizen, Inc. and the Nuclear Issues Study Group have each submitted a declaration from a member who lives in New Mexico, neither lives anywhere near the proposed facility.⁶⁹ The other five organizations rely entirely on declarations from members who live in other states. All seven organizations, therefore, base their standing claims not on their members' proximity to the proposed facility, but on their proximity to potential transportation routes by which spent nuclear fuel might travel to the proposed facility.

This is too remote and speculative an interest on which to establish standing. As the Commission stated in 2004: "[M]ere geographical proximity to potential transportation routes is insufficient to confer standing."⁷⁰

68. The seven organizations are: Don't Waste Michigan; Citizens for Alternatives to Chemical Contamination; Public Citizen, Inc.; San Luis Obispo Mothers for Peace; Nuclear Energy Information Service; Citizens' Environmental Coalition; and Nuclear Issues Study Group.

69. Joint Pet'rs Pet., Decl. of Petuuche Gilbert. The Declaration of Petuuche Gilbert asserts that he is a member of Public Citizen, Inc. who lives in Pueblo of Acoma, New Mexico. *Id.*, Decl. of Leona Morgan. The declaration of Leona Morgan asserts that she is a member of the Nuclear Issues Study Group who lives in Albuquerque, New Mexico.

70. *U.S. Department of Energy* (Plutonium Export License), CLI-04-17, 59 NRC 357, 364 n.11 (2004) (quoting *Diablo Canyon*

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Even before 2004, licensing boards rejected standing arguments based on proximity to likely transportation routes.⁷¹ As the Commission observed in 2001, licensing boards have regularly declined to find that a mere increase in the traffic of radioactive materials near a petitioner's residence, without more, constitutes an injury traceable to a licensing decision "that primarily affects a site hundreds of miles away."⁷²

Although Joint Petitioners cite one licensing board decision for the proposition that standing may be based on proximity to transportation routes,⁷³ we decline to

ISFSI, LBP-02-23, 56 NRC at 434). *See also EnergySolutions, LLC* (Radioactive Waste Import/Export Licenses), CLI-11-3, 73 NRC 613, 623 (2011) (denying petitioners' standing claim for failing to show there would be any impact from the transport of radioactive materials to be imported).

71. *See, e.g., Diablo Canyon ISFSI*, LBP-02-23, 56 NRC at 433-34; *Pathfinder*, LBP-90-3, 31 NRC at 43-44 (denying standing to petitioner who resided one mile from a likely transportation route and merely claimed that an accident along that route would cause an increased radiological dose); *accord Exxon Nuclear Co., Inc.* (Nuclear Fuel Recovery and Recycling Center), LBP-77-59, 6 NRC 518, 520 (1977) (finding that assertion of injury from spent fuel that would travel on railway track very near property was insufficient to establish standing).

72. *International Uranium (USA) Corp.* (White Mesa Uranium Mill), CLI-01-18, 54 NRC 27, 32 (2001).

73. *See Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), LBP-01-35, 54 NRC 403 (2001), *rev'd in part on other grounds*, CLI-02-24, 56 NRC 335 (2002).

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follow it. In our view, either the result in *Duke Cogema* was influenced by what that Board characterized as the “unique circumstances”⁷⁴ surrounding transportation of mixed oxide fuel or, alternatively, the decision is simply an outlier that failed to anticipate the position of the Commission as expressed in later cases.⁷⁵ Regardless, it is not binding on this Board.

Moreover, other licensing boards have rejected petitioners’ standing claims because the mere fact that additional radioactive waste will be transported if the NRC licenses a project “does not *ipso facto* establish that there is a reasonable opportunity for an accident to occur at [any location], or for the radioactive materials to escape because of accident or the nature of the substance being transported.”⁷⁶ Here, although Joint Petitioners try to predict future transportation routes,⁷⁷ Holtec’s proposed facility as yet has no customers, and the routes by which spent fuel might travel to Lea County, New Mexico from nuclear power plants around the country have not yet been established.⁷⁸ Joint Petitioners’ standing claims are therefore even more speculative than the rejected claims of petitioners who could at least show a reasonable

74. *Id.* at 417.

75. *See supra* note 70.

76. *Pathfinder*, LBP-90-3, 31 NRC at 43.

77. Joint Pet’rs Pet. at 11-13.

78. Holtec Answer to Joint Pet’rs at 20.

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probability that the transportation routes they lived near would actually be used.⁷⁹

None of the Joint Petitioners has demonstrated standing. Moreover, because Joint Petitioners have not proffered an admissible contention, as discussed *infra*, their request for an evidentiary hearing must be denied on that ground as well.

D. Fasken

As set forth in the Declarations of Tommy E. Taylor,⁸⁰ Mr. Taylor is Vice President of Fasken Management, LLC,

79. *Cf. International Uranium (USA) Corp.* (White Mesa Uranium Mill), LBP-01-8, 53 NRC 204, *aff'd*, CLI-01-18, 54 NRC 27 (2001) (denying standing where petitioner resided merely one block from route over which applicant proposed to transport radioactive materials); *Pathfinder*, LBP-90-3, 31 NRC at 43-44 (denying standing to petitioner who resided one mile from transportation route established with “reasonable likelihood”).

80. Mr. Taylor executed his initial Declaration on September 14, 2018. He executed a Supplemental Declaration on December 10, 2018, which was submitted with a motion of the same date, seeking permission to file it. The Commission allows a petitioner “some latitude to supplement or cure a standing showing in its reply pleading [so long as] any additional arguments [are] supported by . . . a supplemental affidavit.” *Strata Energy, Inc.* (Ross In Situ Recovery Uranium Project), LBP-12-3, 75 NRC 164, 186 (2012) (citing *South Carolina Electric & Gas Co. and South Carolina Public Service Authority* (Virgil C. Summer Nuclear Station, Units 2 and 3), CLI-10-1, 71 NRC 1, 7 (2010)). Accordingly, the Board grants the motion and accepts Mr. Taylor’s Supplemental Declaration.

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which is the general partner of Fasken Land and Minerals, Ltd.⁸¹ Fasken is a member of the Permian Basin Land and Royalty Organization, which is an association of oil and gas producers and royalty owners formed specifically in response to Holtec's proposed facility.⁸²

As stated in Mr. Taylor's initial Declaration, Fasken owns and/or leases property related to its oil and gas activities that is approximately two miles from the proposed Holtec site.⁸³ Although Mr. Taylor's initial Declaration focused on Fasken's economic interests, his supplemental Declaration clarified that he and other Fasken employees "routinely" go to this area for work-related purposes, such as checking on oil and gas production equipment, regular inspection and maintenance, and repairs as needed.⁸⁴ Accordingly, he is "concerned that the close proximity of Fasken's oil and gas properties and the necessity for Fasken's employees and myself to regularly attend to such will expose them and myself to radiation from the proposed [CISF]."⁸⁵

81. Motion for Permission to File Supplemental Standing Declaration of Tommy E. Taylor, Suppl. Decl. of Tommy Taylor ¶ 1 (Dec. 10, 2018) [hereinafter Suppl. Decl. of Tommy Taylor].

82. *See* Fasken Motion to Dismiss, Decl. of Tommy Taylor ¶ 3 (Sept. 14, 2018).

83. Suppl. Decl. of Tommy Taylor ¶ 3.

84. *Id.* ¶ 4.

85. *Id.* ¶ 5.

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Although Mr. Taylor and other Fasken employees do not live two miles from the Holtec site, we conclude that the extreme closeness of the Fasken site, coupled with a reasonable expectation of regular visits for work-related activities, are sufficient to justify a presumption of standing. In *Millstone*, by way of comparison, that licensing board found standing based on part-time residence, even though the part-time residence was five times as distant (10 miles) from the storage facility, and the facility itself was a small fraction of the size to which Holtec hopes its facility will grow.⁸⁶

Fasken has demonstrated standing. However, as discussed *infra*, because Fasken has not proffered any contention of its own, much less an admissible contention, its request for an evidentiary hearing must nonetheless be denied.

E. AFES

AFES describes itself as an environmental group whose members are principally located in the area of Holtec's proposed storage facility.⁸⁷ It states that its members are working to oppose "the small group of economic elites ('the one percent'), who have gone unchallenged, as they seek to impose their personal economic agendas on the backs of the economically vulnerable people of Southern New Mexico."⁸⁸ Of especial

86. *Millstone*, LBP-00-2, 51 NRC at 27-28.

87. AFES Pet. at 1.

88. *Id.* at 2.

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relevance, AFES is “concerned about environmental and health issues related to oil, gas, uranium mining, radioactive waste transportation, disposal or storage and nuclear enrichment and processing.”⁸⁹

AFES submitted affidavits from four members, the closest of whom lives 35 miles from the proposed facility.⁹⁰ One member has worked for the past six months for an employer located 10 miles from the site, although it is unclear how much time she spends there, as she describes her job as including “driving around much of Eddy and Lea County.”⁹¹ All four members state that, on a regular basis, they use the main road between Hobbs and Carlsbad (US 62-180, which passes 0.52 miles from the Holtec site).⁹²

We question whether these contacts are sufficient to establish standing. Although 35 miles is within the 50-mile proximity presumption that applies to licensing reactors, it is nearly twice the distance that any licensing board has found sufficient to support standing in a spent fuel storage case.⁹³ Having an employer located 10 miles

89. *Id.*

90. *See* AFES Pet., Ex. 5, Aff. of Nicholas R. Maxwell ¶ 5 (Sept. 12, 2018) [hereinafter Aff. of Nicholas R. Maxwell].

91. *Id.*, Ex. 3, Aff. of Lorraine Villegas ¶ 6 (Sept. 12, 2018) [hereinafter Aff. of Lorraine Villegas].

92. Aff. of Nicholas R. Maxwell ¶ 6; Aff. of Lorraine Villegas ¶ 7; AFES Pet., Ex. 2, Aff. of Roase Gardner ¶ 9 (Sept. 12, 2018); *id.*, Ex. 4, Aff. of Noel V. Marquez ¶ 9 (Sept. 12, 2018).

93. *See Diablo Canyon ISFSI*, LBP-02-23, 56 NRC at 428-29 (ruling 17 miles sufficient for standing).

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from the site does suggest some similarity to the facts in *Millstone*, where a part-time residence at that distance from a storage facility was found sufficient.⁹⁴ However, the record suggests that the pertinent AFES member might not actually spend her work day at that location and does not reflect for how long she expects her six-month employment to continue.⁹⁵ Finally, we do not find that necessarily fleeting contacts with land near the proposed facility by using a highway that passes a half mile away are sufficient to qualify.

On the other hand, the proposed Holtec facility is envisioned as potentially much larger than any previous spent fuel storage facility. In this uncharted area, we are reluctant to rule unnecessarily on what geographic distance might or might not be sufficient for a presumption of standing. Because AFES plainly has not submitted an admissible contention, as discussed *infra*, we deny its request for an evidentiary hearing on that ground alone and make no determination of its standing.

F. NAC

NAC describes itself as a “leading nuclear fuel cycle technology company that provides storage systems for [spent nuclear fuel].”⁹⁶ According to NAC, much of the design information for its canisters is proprietary, and

94. *See Millstone*, LBP-00-2, 51 NRC at 27-28.

95. Aff. of Lorraine Villegas ¶ 6.

96. NAC Pet. at 4.

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because NAC has not licensed or authorized anyone to furnish its proprietary design information to Holtec this information is not available to Holtec.⁹⁷

NAC therefore claims that it will be harmed if NAC's canisters are placed in Holtec's storage facility. Specifically, NAC claims that, lacking NAC's proprietary information, Holtec would be unable to adequately evaluate or respond to events that affect NAC canisters stored in Holtec's facility.⁹⁸ As a result, NAC alleges, it would likely (1) be urged to provide its proprietary information to Holtec; (2) be harmed in its reputation for safety and reliability; (3) be subject to harm to its proprietary interest in its own NRC Certificates of Compliance for spent fuel storage systems approved under Part 72; and/or (4) be subject to third-party claims of financial responsibility.⁹⁹

NAC claims standing on the basis of these alleged injuries. Alternatively, NAC asks the Board to grant it discretionary intervention under 10 C.F.R. § 2.309(e).

The difficulty with NAC's standing claim is that it has nothing at stake at the present time. Holtec's present application, if granted, would not allow storage of NAC canisters at the proposed facility. On the contrary, the application's proposed License Condition 9 would authorize storage only in casks designated in accordance

97. *Id.*

98. *See id.*

99. *Id.* at 5.

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with the Certificate of Compliance for Holtec's HI-STORM UMAX storage system.¹⁰⁰ That Certificate, in turn, only allows storage of two specific types of Holtec canisters – not NAC's or anyone else's canisters.¹⁰¹

When and if, at some future time, Holtec wants NRC authorization to store NAC canisters at Holtec's facility, then both Holtec's Certificate of Compliance and facility license would need to be amended, and NAC could seek to participate in proceedings concerning those amendments. NAC's counsel creatively posits various reasons why NAC might find those alternatives less satisfactory,¹⁰² but the unavoidable reality is that NAC has not suffered and cannot suffer any injury that entitles it to standing in the present proceeding.

NAC has not demonstrated standing. Moreover, because NAC has not proffered an admissible contention, as discussed *infra*, its request for an evidentiary hearing must be denied on that ground as well.

For similar reasons, the Board denies NAC's alternative request for discretionary intervention. NAC's

100. See Proposed License for Independent Storage of Spent Nuclear Fuel and High-Level Radioactive Waste (ADAMS Accession No. ML17310A223) [hereinafter Holtec Proposed License].

101. See HI-STORM UMAX Certificate of Compliance No. 1040, Appendix B, Amend. No. 2, Approved Contents and Design Features for the HI-STORM UMAX Canister Storage System (ADAMS Accession No. ML16341B107).

102. Tr. at 179-209.

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further participation would significantly and improperly broaden the scope of this proceeding, contrary to 10 C.F.R. § 2.309(e)(2), because NAC seeks to address concerns that will not be affected by whether or not the NRC grants the license Holtec is seeking.

III. CONTENTION ADMISSIBILITY STANDARDS

A. Legal Standards Governing Contention Admissibility

For its hearing request to be granted, in addition to demonstrating standing, a petitioner must proffer at least one admissible contention.¹⁰³

An admissible contention must: (1) state the specific legal or factual issue to be raised or controverted; (2) provide a brief explanation for the basis of the contention; (3) demonstrate that the issue raised in the contention is within the scope of the proceeding; (4) demonstrate that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding; (5) concisely state the alleged facts or expert opinions that support the petitioner's position and on which the petitioner intends to rely at an evidentiary hearing, including references to the specific sources and documents on which the petitioner intends to rely; and (6) show that a genuine dispute exists on a material issue of law or fact by referring to specific portions of the application that the petitioner disputes or, if the application

103. 10 C.F.R. § 2.309(a).

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is alleged to be deficient, by identifying such deficiencies and the supporting reasons for this allegation.¹⁰⁴

A further requirement applies to several contentions addressed *infra*. No NRC rule or regulation may be challenged in a contention unless the petitioner seeks and obtains a waiver from the Commission in accordance with 10 C.F.R. § 2.335. No petitioner in this proceeding has sought such a waiver.

The contention admissibility rules are “strict by design.”¹⁰⁵ The Commission has observed that they “properly ‘reserve our hearing process for genuine, material controversies between knowledgeable litigants.’”¹⁰⁶ Failure to satisfy even one of the requirements requires the Board to reject the contention.¹⁰⁷

This six-factor standard resulted from the Commission’s effort to “raise the threshold bar for an admissible contention.”¹⁰⁸ Previously, licensing boards

104. *Id.* § 2.309(f)(i)-(vi).

105. *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358 (2001).

106. *FirstEnergy Nuclear Operating Co.* (Davis-Besse Nuclear Power Station, Unit 1), CLI-12-8, 75 NRC 393, 396 (2012) (quoting *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 2), CLI-03-14, 58 NRC 207, 219 (2003)).

107. *See Entergy Nuclear Operations, Inc.* (Indian Point, Unit 2), CLI-16-5, 83 NRC 131, 136 (2016).

108. *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 334 (1999).

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would sometimes admit contentions “that appeared to be based on little more than speculation[,]” and petitioners would try to “unearth” admissible contentions “through cross-examination.”¹⁰⁹ Rather than expend agency time and resources on vague and unsupported claims,¹¹⁰ the Commission strengthened the contention admissibility standards to what they are today – standards that afford evidentiary hearings only to those who “proffer at least some minimal factual and legal foundation in support of their contentions.”¹¹¹

Therefore, although a petitioner need not prove its contention at this stage, mere notice pleading of proffered contentions is insufficient.¹¹² Rather, the NRC requires a petitioner to read the pertinent portions of the license application, including the Safety Analysis Report and the Environmental Report, state the applicant’s position and the petitioner’s opposing view, and explain why it disagrees with the applicant.¹¹³

109. *Id.*

110. *See* Changes to the Adjudicatory Process, 69 Fed. Reg. 2182, 2202 (Jan. 14, 2004).

111. *Oconee*, CLI-99-11, 49 NRC at 334.

112. *Fansteel, Inc.* (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 203 (2003).

113. Rules of Practice for Domestic Licensing Proceedings – Procedural Changes in the Hearing Process, 54 Fed. Reg. 33,168, 33,170-71 (Aug. 11, 1989).

*Appendix E***B. Late-Filed Contentions**

As some petitioners have filed motions to either amend their contentions or file new contentions, an explanation of the rules for amended or late-filed contentions is necessary.¹¹⁴

Because the initial deadline for filing contentions was September 14, 2018,¹¹⁵ petitioners seeking to amend their original contentions or proffer new ones after that date must meet the “good cause” standard in 10 C.F.R. § 2.309(c)(1).¹¹⁶ “Good cause” exists if the petitioner can show (1) the information upon which the amended or new contention is based was not previously available; (2) the information upon which the filing is based is materially

114. Motion by [Joint Petitioners] to File a New Contention (Jan. 17, 2019); Sierra Club’s Motion to File a New Late-Filed Contention (Jan. 17, 2019); Motion of [Joint Petitioners] to Amend Their Contentions 4 and 7 Regarding Holtec’s Decision to Have No Dry Transfer System Capability and Holtec’s Policy of Returning Leaking, Externally Contaminated or Defective Casks and/or Canisters to Originating Reactor Sites (Feb. 18, 2019) [hereinafter Joint Pet’rs Motion to Amend Contentions 4 & 7]; Sierra Club’s Additional Contentions in Support of Petition to Intervene and Request for Adjudicatory Hearing (Feb. 25, 2019) [hereinafter Sierra Club Contentions 27, 28, 29]; Sierra Club’s Motion to File New Late-Filed Contentions 27, 28, and 29 (Feb. 25, 2019) [hereinafter Sierra Club’s Motion to File New Late-Filed Contentions 27, 28, and 29].

115. *See* Notice of Opportunity to Request a Hearing, 83 Fed. Reg. at 32,919.

116. *See* 10 C.F.R. § 2.309(b); *see also id.* § 2.309(f)(2).

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different from information previously available;¹¹⁷ and (3) the filing has been submitted in a timely fashion based on the availability of the subsequent information.¹¹⁸ Previously available information that is newly acquired by the petitioner does not constitute good cause,¹¹⁹ as “new and amended contentions must be *based on new facts* not previously available.”¹²⁰

C. NEPA Legal Standards

NEPA mandates that federal agencies prepare an environmental impact statement (EIS) before undertaking any “major Federal actions significantly affecting the quality of the human environment.”¹²¹ The preparation

117. “Materially different” in this context concerns the “type or degree of difference between the new information and previously available information.” *Florida Power & Light Co.* (Turkey Point Units 6 and 7), LBP-17-6, 86 NRC 37, 48, *aff’d*, CLI-17-12, 86 NRC 215 (2017).

118. 10 C.F.R. § 2.309(c)(1). *See also Shaw AREVA MOX Services* (Mixed Oxide Fuel Fabrication Facility), LBP-08-11, 67 NRC 460, 493 (2008) (observing that many licensing boards have found 30 days from a triggering event for proffering a new or amended contention to be timely).

119. *Kansas Gas & Electric Co.* (Wolf Creek Generating Station, Unit 1), LBP-84-17, 19 NRC 878, 886 (1984).

120. *Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc.* (Pilgrim Nuclear Power Station), CLI-12-10, 75 NRC 479, 493 n.70 (2012) (emphasis in original).

121. *See* 42 U.S.C. § 4332(2)(C); *see also Nat. Res. Def. Council v. NRC*, 823 F.3d 641, 643 (D.C. Cir. 2016).

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of an EIS is meant to ensure that federal agencies “will not act on incomplete information, only to regret [their] decision after it is too late to correct.”¹²² NEPA requires agencies to take a “hard look at environmental consequences” of the proposed action,¹²³ and imposes a duty upon the agency to both “consider every significant aspect of the environmental impact of a proposed action” and “inform the public” of its analysis and conclusion.¹²⁴

NEPA’s “hard look” mandate notwithstanding, the agency is not obligated to analyze every conceivable aspect of the project before it.¹²⁵ Instead, this “hard look” is subject to a “rule of reason,”¹²⁶ meaning that the agency need not perform analyses concerning events that would be considered ““worst case” scenarios involving the project,¹²⁷ or those considered “““remote and highly

122. *Marsh v. Or. Nat. Res. Council*, 490 U.S. 360, 371 (1989).

123. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989) (quoting *Kleppe v. Sierra Club*, 427 U.S. 390, 410 n.21 (1976)).

124. *Balt. Gas & Elec. Co. v. Nat. Res. Def. Council, Inc.*, 462 U.S. 87, 97, 103 (1983) (quoting *Vermont Yankee Nuclear Power Corp. v. Nat. Res. Def. Council*, 435 U.S. 519, 553 (1978)).

125. *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-02-25, 56 NRC 340, 349 (2002).

126. *Nat. Res. Def. Council v. Morton*, 458 F.2d 827, 834 (D.C. Cir. 1972).

127. *Private Fuel Storage, L.L.C.*, CLI-02-25, 56 NRC at 352.

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speculative.”¹²⁸ NEPA does not necessitate “certainty or precision” nor does it mandate particular results from the agency.¹²⁹ Rather, NEPA requires “an *estimate* of anticipated (not unduly speculative) impacts” from the agency.¹³⁰ The statutory obligations seek to “guarantee process, not specific outcomes.”¹³¹

At this stage of the proceeding, the NRC Staff has not issued an EIS for the proposed Holtec facility. NRC regulations nonetheless require petitioners to file environmental contentions “based on documents or other information at the time the petition is to be filed,” i.e., the applicant’s Environmental Report.¹³² Although it is the NRC Staff’s responsibility to comply with NEPA in its later- issued EIS,¹³³ we analyze contentions challenging the Environmental Report now as if those contentions will migrate as challenges to the Staff’s later-issued EIS.¹³⁴

128. *Limerick Ecology Action, Inc. v. NRC*, 869 F.2d 719, 754-55 (3d Cir. 1989).

129. *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-05-20, 62 NRC 523, 536 (2005).

130. *Id.* (emphasis in original).

131. *Massachusetts v. NRC*, 708 F.3d 63, 67 (1st Cir. 2013).

132. 10 C.F.R. § 2.309(f)(2). *See also Powertech (USA), Inc.* (Dewey-Burdock In Situ Uranium Recovery Facility), CLI-16-20, 84 NRC 219, 231 (2016).

133. 42 U.S.C. §§ 4321 *et seq.*

134. *See Powertech*, CLI-16-20, 84 NRC at 231; *see also Crow Butte Resources, Inc.* (In Situ Leach Facility, Crawford,

IV. CONTENTION ANALYSIS

A. Beyond Nuclear

Understanding Beyond Nuclear's sole contention (as well as some of the contentions proffered by other petitioners¹³⁵) requires further explanation of the statutory scheme that was established by the NWPA. As discussed *supra*, Congress contemplated that DOE would build a national nuclear waste repository, but that the nuclear power companies would help pay for it. Under section 302 of the NWPA, power reactor licensees were required to pay into a Nuclear Waste Fund for construction of the repository.¹³⁶ In exchange, section 302(a)(5)(B) committed DOE to begin disposing of the nuclear power plants' spent fuel no later than January 31, 1998. When a permanent repository failed to materialize, the power plant licensees sued and began to recover from the federal government substantial damages to cover the cost of continuing to store spent fuel at their reactor sites.¹³⁷ Contract damage

Nebraska), CLI-15-17, 82 NRC 33, 42 n.58 (2015) ("[A] contention 'migrates' when a licensing board construes a contention challenging [an Environmental Report] . . . as a challenge to a subsequently issued Staff NEPA document without the petitioner amending the contention.").

135. *See, e.g.*, Sierra Club Contention 1 and Joint Petitioners Contention 2, discussed *infra*.

136. 42 U.S.C. § 10222.

137. *See, e.g.*, *Nat'l Ass'n of Regulatory Util. Comm'rs v. U.S. Dep't of Energy*, 736 F.3d 517, 520 (D.C. Cir. 2013); *Me. Yankee Atomic Power Co. v. United States*, 225 F.3d 1336, 1341-42 (Fed.

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lawsuits under the NWPA are now commonplace, and the federal government pays out damages to power reactor licensees on a regular basis.¹³⁸

Thus, both DOE and the nuclear power plant owners potentially have an interest in contracting to use Holtec's proposed interim storage facility. DOE might want to take responsibility for the nuclear plants' spent fuel, pay Holtec to store it, and stop paying out damages. The nuclear plant owners, on the other hand, might be willing to apply their ongoing damage payments toward paying Holtec to store their spent fuel, so that it would be off their sites and no longer their responsibility to keep secure. Because the NWPA was drafted on the assumption that DOE would not accept title to spent nuclear fuel until a permanent repository becomes operational, however, it appears (as discussed *infra*) that in general only the second possibility would be consistent with the terms of the statute.

Beyond Nuclear's contention, as originally proffered in its hearing petition, therefore stated:

The NRC must dismiss Holtec's license application and terminate this proceeding because the application violates the NWPA. The proceeding must be dismissed because the central premise of Holtec's application – that

Cir. 2000); *Ind. Mich. Power Co. v. U.S. Dep't of Energy*, 88 F.3d 1272, 1276-77 (D.C. Cir. 1996).

138. See, e.g., *Nat'l Ass'n of Regulatory Util. Comm'rs*, 736 F.3d at 520.

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the U.S. Department of Energy (“DOE”) will be responsible for the spent fuel that is transported to and stored at the proposed interim facilities – violates the NWPA. Under the NWPA, the DOE is precluded from taking title to spent fuel unless and until a permanent repository has opened. 42 U.S.C. §§ 10222(a)(5)(A), 10143.¹³⁹

In other words, initially Beyond Nuclear assumed that the “central premise” of Holtec’s application was that Holtec would contract with DOE to store nuclear power companies’ spent fuel. This would be unlawful under the NWPA, Beyond Nuclear contended.

After Holtec conceded that (with limited exceptions) such contracts would indeed be unlawful at the present time,¹⁴⁰ Beyond Nuclear moved to amend its contention to add the following statement:

Language in Rev. 3 of Holtec’s Environmental Report, which presents federal ownership as a possible alternative to private ownership of spent fuel, does not render the application lawful. As long as the federal government is listed as a potential owner of the spent fuel, the application violates the NWPA.¹⁴¹

139. Beyond Nuclear Pet. at 10.

140. Tr. at 250-52.

141. Motion by Petitioners Beyond Nuclear and Fasken to Amend Their Contentions Regarding Federal Ownership of Spent Fuel to Address [Holtec’s] Revised License Application (Feb. 6,

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As discussed *infra*, the Board grants Beyond Nuclear's motion to amend its contention, in order to allege that even presenting federal ownership as a possible alternative to private ownership of spent fuel violates the NWPA.

As events have unfolded, therefore, Beyond Nuclear's contention now raises this fundamental question: May the NRC license Holtec's storage facility to enter into lawful contracts with potential customers, including those that may later become lawful? Or, if Congress were to expand the category of lawful contracts (specifically, to include most contracts with DOE), would it be necessary (as Beyond Nuclear claims) for Holtec to re-submit its license application and for the NRC to re-notice a new opportunity for a hearing?¹⁴² We conclude that, to implement the will of Congress in such circumstances, the NRC need not require Holtec to begin the licensing process all over again.

As explained *supra*, initially Beyond Nuclear filed with the Commission a motion to dismiss the Holtec licensing proceeding as violating the NWPA.¹⁴³ At the same time, out of an abundance of caution, Beyond Nuclear also filed essentially the same claim in the form of a hearing request and contention.¹⁴⁴ The Secretary of the

2019) at 8 [hereinafter Beyond Nuclear and Fasken Motion to Amend].

142. *See id.* at 11 n.5.

143. Beyond Nuclear Motion to Dismiss at 1.

144. Beyond Nuclear Pet.

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Commission denied Beyond Nuclear's motion to dismiss on procedural grounds, without prejudice to its underlying arguments, and directed that the matter should proceed before a licensing board on the basis of Beyond Nuclear's hearing petition.¹⁴⁵

In support of its contention, Beyond Nuclear incorporated by reference portions of its motion to dismiss.¹⁴⁶ Beyond Nuclear identified language in Holtec's Environmental Report that said Holtec would enter into a contract with DOE by which DOE will take title to spent fuel and be responsible for transporting it to the site.¹⁴⁷ It also identified language in Holtec's Safety Analysis Report that said Holtec might *either* contract with DOE or with nuclear plant owners themselves, leading to an inconsistency in the application documents.¹⁴⁸

Beyond Nuclear contended that the first scenario (that is, Holtec's contracting with DOE) would be unlawful under the NWPA. As Beyond Nuclear pointed out, the NWPA provides that until a permanent waste repository (such as Yucca Mountain) opens, "the generators and owners of high-level radioactive waste and spent nuclear fuel have the primary responsibility to provide for, and the responsibility to pay the costs of, the interim storage

145. Order Denying Motions to Dismiss at 2.

146. Beyond Nuclear Pet. at 10.

147. Beyond Nuclear Motion to Dismiss at 16 (citing ER, rev. 0 at 1-1, 3-104).

148. *Id.* at 16 n.4 (emphasis added).

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of such waste and spent fuel.”¹⁴⁹ For this reason, Beyond Nuclear argued, the NWPAs states that DOE will take title to spent fuel only “following commencement of operation of a repository.”¹⁵⁰ It is undisputed that no such repository has been licensed or constructed, much less become operational.

The NRC Staff agreed that Beyond Nuclear’s contention should be admitted to the extent it challenged the inconsistency between Holtec’s Environmental Report and its Safety Analysis Report.¹⁵¹ The Staff, however, deemed it “premature to take a position on how the applicant will address the inconsistency.”¹⁵²

Holtec, for its part, contended that the inconsistencies were a mistake, that its actual intent is to contract either with DOE or with nuclear plant owners, and that the inconsistencies were “in the process of being revised to eliminate any confusion.”¹⁵³ Holtec also suggested it “worth noting that Petitioner’s claims of current NWPAs

149. 42 U.S.C. § 10131.

150. *Id.* § 10222(a)(5)(A). *See also id.* § 10143 (“Delivery, and acceptance by the Secretary [of Energy], of any high-level radioactive waste or spent nuclear fuel *for a repository* . . . shall constitute a transfer to the Secretary of title to such waste or spent fuel.”) (emphasis added).

151. NRC Staff Consol. Answer at 66.

152. *Id.* at 66 n.296.

153. Holtec Answer to Beyond Nuclear at 20.

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restrictions may well be superseded by Congress.”¹⁵⁴ But Holtec did not initially concede in its response that contracting for DOE to take title to nuclear power companies’ spent fuel would necessarily be unlawful under the NWPAs as currently in effect.

The Board, therefore, was inclined to agree with the NRC Staff that Beyond Nuclear’s contention was admissible, but to admit it as a legal issue contention for a broader purpose: that is, to determine whether or not Holtec could lawfully contract directly with DOE to take title to power companies’ spent nuclear fuel. At the very least, the Board tentatively concluded, Beyond Nuclear had set forth a plausible case that Holtec could not lawfully elect this option, consistent with the NWPAs.¹⁵⁵

At oral argument, however, Holtec’s counsel conceded that, with very limited exceptions, it would violate the

154. *Id.* at 21 (citing proposed but unenacted amendments to the NWPAs).

155. A contention may state an “issue of law or fact.” 10 C.F.R. § 2.309(f)(1)(i). As should be obvious, a legal issue contention need not necessarily address every requirement of section 2.309(f)(1), such as the requirement to provide “a concise statement of the alleged facts or expert opinions which support the requestor’s/petitioner’s position on the issue.” *Id.* § 2.309(f)(1)(v). See *U.S. Department of Energy* (High-Level Waste Repository), CLI-09-14, 69 NRC 580, 588-91 (2009) (“We agree, for example, with the Boards’ view in this proceeding that requiring a petitioner to allege “facts’ under section 2.309(f)(1)(v) or to provide an affidavit that sets out the ‘factual and/or technical bases’ under section 51.109(a)(2) in support of a *legal* contention – as opposed to a *factual* contention – is not necessary.”).

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NWPA as currently in effect for DOE to take title to nuclear plant owners' spent fuel. He stated:

I will agree with you that, on their current legislation, DOE cannot take title to spent nuclear fuel from commercial nuclear power plants, under the current statement of facts, but that could change, depending on what Congress does.¹⁵⁶

Holtec's counsel committed, however, that Holtec has no intention of contracting with DOE to accept most nuclear power plants' spent fuel unless and until Congress amends the NWPA to make that lawful.¹⁵⁷ Meanwhile, Holtec represented, it has every intention of proceeding with the project on the assumption it will contract directly with the nuclear plant owners themselves.¹⁵⁸ Finally, Holtec has, in fact, revised its Environmental Report to say that the proposed facility's customers could be either DOE or the nuclear power plant owners.¹⁵⁹

In the aftermath of these developments, Beyond Nuclear moved to amend its contention to add the statement set forth above. In essence, Beyond Nuclear now claims that reference to the mere possibility of

156. Tr. at 250. *See also* Tr. at 251-52.

157. Tr. at 248.

158. *Id.*

159. *See* ER at 3-117.

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contracting directly with DOE must be expunged from Holtec's application – regardless of Holtec's intentions and regardless of whether Congress might amend the NWPA.

Because Beyond Nuclear seeks to amend its contention after the deadline for filing petitions, we must first consider whether its motion to file the contention satisfies the three-prong test in 10 C.F.R. § 2.309(c)(1)(i)-(iii). Although Holtec argues to the contrary,¹⁶⁰ we conclude that it does. Holtec's revised Environmental Report (Rev. 3) was not available until January 17, 2019. Its revised Environmental Report is materially different from Holtec's original license application because it replaces unequivocal language regarding DOE ownership of spent fuel with language stating that either DOE or private entities will own the spent fuel. Beyond Nuclear's motion to amend was timely filed less than three weeks after the availability of Holtec's revised Report – well within the 30 days in which licensing boards have generally allowed petitioners to respond to new information.¹⁶¹ We therefore grant Beyond Nuclear's motion to amend.

160. Holtec Opposition to Beyond Nuclear and Fasken Motion to Amend Their Contentions Regarding Federal Ownership of Spent Fuel to Address [Holtec's] Revised License Application (Feb. 19, 2019) at 2-6 [hereinafter Holtec Opposition to Beyond Nuclear and Fasken Motion]. The NRC Staff response addresses the admissibility of the amended contention without considering its timeliness. *See* NRC Staff Answer to Beyond Nuclear and Fasken Motion.

161. *See Shaw AREVA MOX Servs.*, LBP-08-11, 67 NRC at 493.

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Turning to the amended contention itself, however, we conclude that Beyond Nuclear no longer identifies a genuine dispute with Holtec's license application. The inconsistency between Holtec's Environmental Report and its Safety Analysis Report has been fixed: Holtec's application now consistently says that its customers will be either DOE or the nuclear power plant owners. As Holtec's proposed License Condition 17 states, it will undertake construction only after it has established "a definitive agreement with the prospective user/payer for storing the used fuel (USDOE and/or a nuclear plant owner)." ¹⁶² At the same time, Beyond Nuclear, Holtec, and this Board all agree that, with limited exceptions, DOE may not lawfully take title to spent nuclear waste under the NWPA as currently in effect. ¹⁶³

162. Holtec Proposed License at 2.

163. Although Beyond Nuclear, Holtec, and the Board are all in agreement, the NRC Staff has not taken a position, despite having multiple opportunities to do so. *See* NRC Staff Answer to Beyond Nuclear and Fasken Motion. Accordingly, the Staff would find Beyond Nuclear's amended contention admissible "specifically as a challenge to whether the application may propose a license condition that includes the potential for DOE ownership of spent fuel to be stored at the Holtec facility." *Id.* at 2. The Staff cautions, however, that "in agreeing that the contention is admissible in part, the Staff takes no position on the underlying merits of the contention." *Id.* As best we can tell, the Staff would prefer the Board address the issue as a legal issue contention, precipitating yet another round of briefing and perhaps another oral argument. After thus far receiving well over a thousand pages of briefs and conducting two days of oral argument, the Board is prepared to address this legal issue in the context of deciding contention admissibility.

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Beyond Nuclear claims that the mere mention of DOE renders Holtec's license application unlawful. But that is not so. First, DOE does, in fact, already hold title to a relatively small amount of spent nuclear fuel from commercial reactors that could lawfully be stored at Holtec's facility in the future without violating the NWPA.¹⁶⁴ Second, the Board assumes Holtec will honor its commitment not to contract unlawfully with DOE to store any other spent nuclear fuel (that is, the vast majority of spent fuel from commercial reactors, which is currently owned by the nuclear power companies). Likewise, we assume DOE would not be complicit in any such unlawful contracts.

Holtec represents that it is committed to going forward with the project by contracting directly with nuclear plant owners that currently hold title to their spent fuel.¹⁶⁵ Whether Holtec will find that alternative commercially viable is not an issue before the Board, because the business decision of whether to use a license has no bearing on a licensee's ability to safely conduct the activities the license authorizes. As the Commission instructs us, "the NRC is not in the business of regulating the market strategies of licensees or determining whether market strategies warrant commencing operations."¹⁶⁶

164. Tr. at 237, 249-50.

165. Tr. at 248.

166. *Louisiana Energy Services* (National Enrichment Facility), CLI-05-28, 62 NRC 721, 726 (2005) (quoting *Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 48-49 (2001)).

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Holtec readily acknowledges that it hopes Congress will change the law and allow it in most instances to contract directly with DOE to store spent nuclear fuel.¹⁶⁷ Meanwhile, we assume that Holtec – having acknowledged on the record that (with limited exceptions) it would be unlawful to contract with DOE under the NWPA as currently in effect – will not try to do just that. Nor may we assume that DOE would be complicit in a violation of the NWPA.¹⁶⁸ On the contrary, DOE has also taken the position publicly that it may not take title to most private plant companies’ spent nuclear fuel without violating the NWPA as currently in effect.¹⁶⁹

Neither the facts nor the law, therefore, remain in dispute. Holtec seeks a license that would allow it to enter into lawful customer contracts today, but also permit it

167. Tr. at 248, 250.

168. A presumption of regularity applies to federal agencies, which should be assumed to act properly in the absence of evidence to the contrary. *See, e.g., United States v. Armstrong*, 517 U.S. 456, 464 (1996); *United States v. Chem. Found., Inc.*, 272 U.S. 1, 14-15 (1926).

169. *See, e.g.,* Final Interpretation of Nuclear Waste Acceptance Issues, 60 Fed. Reg. 21,793, 21,793-94, 21,797 (1995); *N. States Power Co. v. U.S. Dep’t of Energy*, 128 F.3d 754, 756 (D.C. Cir. 1997) (“The Department also took the position that ‘it lacks statutory authority under the Act to provide interim storage.’”) (quoting 60 Fed. Reg. at 21,794); *Ind. Mich. Power Co. v. U.S. Dep’t of Energy*, 88 F.3d 1272, 1274 (D.C. Cir. 1996) (“The [DOE] also determined that it had no authority under the NWPA to provide interim storage in the absence of a facility that has been authorized, constructed and licensed in accordance with the NWPA.”).

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to enter into additional customer contracts if and when they become lawful in the future. If Congress decides to amend the NWPA to allow DOE to take title to spent nuclear fuel before a national nuclear waste repository becomes operational, the only difference would be that DOE could then lawfully contract with Holtec to store the same spent fuel that presently belongs to the nuclear power plant owners. The NRC Staff assures us that it is reviewing Holtec's application in light of both possibilities: "[T]he Staff bases its safety and environmental reviews on the application as presented, which seeks a license on the basis that either DOE or private entities may hold title to the waste."¹⁷⁰

We see no discernable purpose that would be served, in such circumstances, by requiring Holtec to file a new or amended license application for its storage facility or by the NRC entertaining a fresh opportunity to request a hearing. Beyond Nuclear correctly points out that the Administrative Procedure Act (APA) requires federal agencies to follow the law,¹⁷¹ but we do not interpret either the APA or NWPA to require the NRC to perform a useless act.

170. NRC Staff's Consolidated Response to [Joint Petitioner's] and Sierra Club's Motions to File New Contentions (Feb. 19, 2019) at 9 [hereinafter NRC Staff Response to Joint Pet'rs and Sierra Club Motions].

171. Beyond Nuclear Motion to Dismiss at 12.

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Beyond Nuclear's contention, as amended, is not admitted.¹⁷²

B. Sierra Club**1. Sierra Club Contention 1**

Sierra Club's Contention 1 originally stated:

The NRC has no authority to license the Holtec CIS facility under the NWPA nor the AEA. Holtec has said that DOE must take title to the waste, but the NWPA does not authorize DOE to take title to spent fuel in an interim storage facility. The AEA has no provision for licensing a CISF.¹⁷³

On the same day Beyond Nuclear moved to amend its contention, Sierra Club moved to amend Sierra Club Contention 1 to add exactly the same statement:

Language in Rev. 3 of Holtec's Environmental Report, which presents federal ownership as a possible alternative to private ownership

172. Although Fasken purports to join in Beyond Nuclear's motion to amend, it may not properly do so. As explained *infra*, Fasken did not initially submit an admissible contention of its own, and its hearing request must therefore be denied. In any event, the procedural point is moot, because the Board rules that Beyond Nuclear's contention, as amended, is not admissible.

173. Sierra Club Pet. at 10-11.

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of spent fuel, does not render the application lawful. As long as the federal government is listed as a potential owner of the spent fuel, the application violates the NWPA.¹⁷⁴

Insofar as Sierra Club Contention 1 now asserts that reference to the mere possibility of contracting with DOE must be expunged from Holtec's application, it is substantially similar to Beyond Nuclear's amended contention, addressed *supra*. We therefore likewise grant Sierra Club's motion to amend Contention 1, but rule it is not admissible for the same reasons that Beyond Nuclear's amended contention is not admissible.

Insofar as Sierra Club Contention 1 also asserts that any away-from-reactor interim storage facility is necessarily unlawful under the AEA and/or the NWPA, it is not admissible for other reasons. NRC regulations expressly allow licensing of such facilities.¹⁷⁵ Therefore, this argument constitutes an impermissible challenge to NRC regulations that is precluded by 10 C.F.R. § 2.335. Moreover, the United States Court of Appeals for the District of Columbia Circuit has rejected this aspect of Sierra Club Contention 1 – ruling that the NRC has authority under the AEA to license such privately owned

174. Sierra Club's Motion to Amend Contention 1 (Feb. 6, 2019) at 11 [hereinafter Sierra Club Motion to Amend Contention 1].

175. *See generally* 10 C.F.R. Part 72; *see also id.* §§ 72.32(a) & 72.46(d) (referring to requirements pertaining to interim storage facilities not co-located with a power plant).

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facilities, and that the NWPA did not repeal or supersede that authority.¹⁷⁶

Sierra Club Contention 1, as amended, is not admitted.

2. Sierra Club Contention 2

Sierra Club Contention 2 states:

The Holtec Environmental Report, in attempting to describe the purpose and need for this project, claims that [consolidated interim storage] is safer and more secure than storing the waste at the reactor site. However, the environmental report cites no evidence or data to support this assertion. An agency cannot rely on self-serving statements, especially ones with no supporting data, from the prime beneficiary of the project.¹⁷⁷

Sierra Club relies on a 2003 report by Dr. Gordon Thompson, who is asserted to be an expert in technical and policy analyses in the fields of energy and environment.¹⁷⁸ According to Sierra Club, Dr. Thompson's report

176. *Bullcreek v. NRC*, 359 F.3d 536, 538, 543 (D.C. Cir. 2004).

177. Sierra Club Pet. at 17.

178. *Id.* at 19-20 (citing Gordon Thompson, Robust Storage of Spent Nuclear Fuel: A Neglected Issue of Homeland Security (2003)). For Dr. Thompson's credentials, see Sierra Club's Motion to Amend Contention 16, attach., Curriculum Vitae for Gordon R. Thompson (Feb. 18, 2019).

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“documents the benefits of HOSS [hardened on-site storage],” and further claims that the “[Environmental Report] and subsequent EIS must examine the relative safety of HOSS at reactor sites.”¹⁷⁹

Although Sierra Club disputes one sentence, Holtec’s Environmental Report’s purpose and need statement lists multiple reasons to support licensing the proposed facility. For example, decommissioned plants may become greenfields rather than storage facilities, and utilities may eliminate costs and liability by relinquishing responsibility for spent fuel stored on-site.¹⁸⁰ Sierra Club only disputes the safety and security reason, and does not explain how Holtec’s assertion of safety and security compromises the application in a material way.

Furthermore, as the NRC Staff points out,¹⁸¹ Sierra Club fails to show that an analysis of HOSS at reactor sites is material to the environmental review required by NEPA or the Agency’s corresponding regulations.

Sierra Club Contention 2 is not admitted.

179. Sierra Club Pet. at 19-20.

180. ER at 1-6.

181. NRC Staff Consol. Answer at 70.

*Appendix E***3. Sierra Club Contention 3**

Sierra Club Contention 3 states:

The statement in the [Environmental Report] that [consolidated interim storage] is safer and more secure than storage at a reactor site contradicts the NRC’s Continued Storage Rule, which concludes that spent radioactive fuel can be safely stored at a reactor site indefinitely. Therefore, there is no basis for accepting the statement in the [Environmental Report], and there is no purpose and need for the Holtec project.¹⁸²

Similar to Sierra Club Contention 2, this contention also challenges the “safer and more secure” language in the purpose and need section of Holtec’s Environmental Report. Here, Sierra Club disputes that there is a purpose or need for the proposed facility, because the NRC’s Continued Storage Rule and Continued Storage Generic EIS (GEIS) determined that at-reactor storage for an indefinite period would generally result in only “small” environmental impacts.¹⁸³ Sierra Club further alleges that the proposed facility would cause increased risks “due to

182. Sierra Club Pet. at 21.

183. *Id.* at 22. *See* 10 C.F.R. § 51.23 [hereinafter Continued Storage Rule]; *see also* 1 NMSS, [GEIS] for Continued Storage of Spent Nuclear Fuel, NUREG-2157, at 5-48 (Sept. 2014) (ADAMS Accession No. ML14196A105) [hereinafter Continued Storage GEIS].

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the risks of transporting the waste to the [consolidated interim storage] site and the increased risk of so much waste being stored in one place.”¹⁸⁴ Finally, Sierra Club incorporates all of its allegations from Contention 2 in support of this contention.¹⁸⁵

We agree with the NRC Staff¹⁸⁶ and Holtec¹⁸⁷ that Sierra Club fails to raise a genuine dispute with the application, because it does not show an actual contradiction between the Environmental Report and the Continued Storage Rule/GEIS. Although the Continued Storage GEIS did find that spent fuel may be stored on-site with minimal environmental impact, it did not endorse any particular storage method or perform any qualitative analysis of the safety benefits of at-reactor storage vs. away-from-reactor consolidated storage. It also found that any “additional accumulated impacts from transportation of the entire inventory of spent fuel from multiple reactors to an away-from-reactor ISFSI would be . . . minor.”¹⁸⁸

Regarding Sierra Club’s assertion that there is no purpose and need “if spent fuel can be safely stored at the reactor site indefinitely,” Sierra Club does not dispute or even acknowledge the separate reasons for the proposed

184. Sierra Club Pet. at 22.

185. *Id.*

186. NRC Staff Consol. Answer at 70-72.

187. Holtec Answer to Sierra Club at 25-27.

188. Continued Storage GEIS at 5-52.

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facility listed in Holtec's Environmental Report. As explained in our discussion of Sierra Club Contention 2, the purpose and need statement also describes how decommissioned plants may become greenfields rather than storage facilities, as well as how utilities can eliminate costs and liability by relinquishing responsibility for spent fuel stored on-site.¹⁸⁹ Sierra Club only disputes the safety and security reason, and does not explain how Holtec's assertion of safety and security compromises the application in a material way.

Sierra Club Contention 3 is not admitted.

4. Sierra Club Contention 4

Sierra Club Contention 4 states:

Operation of the [consolidated interim storage] site as proposed by Holtec would necessitate the transportation of the radioactive waste from reactor sites to the [consolidated interim storage] facility. Transportation from the reactors to the [consolidated interim storage] site carries substantial risks. These risks must be evaluated in the [Environmental Report].¹⁹⁰

On its face, Sierra Club Contention 4 appears to be a contention of omission – claiming that Holtec's Environmental Report does not evaluate transportation

189. ER at 1-6.

190. Sierra Club Pet. at 22.

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risks. In its basis for the contention, however, Sierra Club clarifies that its claim is actually that the Environmental Report “does not adequately address these risks.”¹⁹¹ Specifically, it asserts that the Environmental Report underestimates both (1) the consequences of severe rail accidents involving shipments of radioactive waste;¹⁹² and (2) the likelihood of such accidents.¹⁹³ Sierra Club relies on the accompanying declaration of Dr. Marvin Resnikoff.¹⁹⁴

Although the NRC Staff would admit the contention insofar as it addresses the potential consequences of rail accidents,¹⁹⁵ the Board disagrees. The centerpiece of Sierra Club’s argument on this point is a 2001 report by Matthew Lamb and Dr. Resnikoff that evaluated the radiologic consequences of the 2001 Baltimore Tunnel Fire if it had involved spent nuclear fuel.¹⁹⁶ The Lamb and Resnikoff report provides a substantially higher estimate of the impacts of a transportation accident than does Holtec’s Environmental Report.¹⁹⁷ However, Sierra

191. *Id.* at 23.

192. *Id.* at 24-25.

193. *Id.* at 25-27.

194. *See* Sierra Club Pet. Decl. of Marvin Resnikoff (Sept. 14, 2018).

195. NRC Staff Consol. Answer at 72-73.

196. Sierra Club Pet. at 24-26.

197. Sierra Club also alleges more generally that the Environmental Report must address risks of radiation emissions during shipment that may occur other than from accidents. But the

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Club fails to acknowledge that Holtec's analysis took into account the Lamb and Resnikoff estimates, which were deemed unrealistic for reasons that Sierra Club does not address or dispute.

Specifically, the evaluation in Holtec's Environmental Report is based on the DOE's Final Supplemental Environmental Impact Statement (DOE FSEIS) for Yucca Mountain.¹⁹⁸ Although the State of Nevada had urged DOE to estimate the consequences of a rail accident in an urban area by using Lamb and Resnikoff's report, DOE declined to do so. On the contrary, DOE concluded that relying on the Lamb and Resnikoff report would result in using "parameters that would be at or near their maximum values," whereas "DOE guidance for the evaluation of accidents in environmental impact statements . . . specifically cautions against the evaluation of scenarios for which conservative (or bounding) values are selected for multiple parameters because the approach yields unrealistically high results."¹⁹⁹ Accordingly, DOE concluded that "the State of Nevada estimates [relying on the Lamb and Resnikoff estimates] are unrealistic and . . .

impact of dose along transportation routes from exposure from incident-free transportation is addressed in ER, Rev. 3, § 4.9.3.1 and tbl. 4.9.1, which Sierra Club fails to acknowledge.

198. DOE, [FSEIS] for a Geologic Repository for the Disposal of Spent Nuclear Waste at Yucca Mountain, Nye County, Nevada (2008) (ADAMS Accession No. ML081750191) [hereinafter DOE FSEIS].

199. DOE FSEIS, Vol. III at CR 271 (ADAMS Accession No. ML081750218).

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do not represent the reasonably foreseeable consequences of severe transportation accidents.”²⁰⁰

Holtec’s Environmental Report relies on and prominently references the DOE FSEIS in its evaluation of the probable consequences of an accident.²⁰¹ Dr. Resnikoff is Sierra Club’s expert on Contention 4, and surely can be charged with being familiar with DOE’s criticism of his own work. By not addressing or disputing the criticisms of the Lamb and Resnikoff study contained in the DOE FSEIS (on which Holtec’s Environmental Report relies), Sierra Club fails to demonstrate a genuine dispute with the application and Contention 4 is inadmissible under 10 C.F.R. § 2.309(f)(1)(vi) for that reason alone.

Moreover, at the very least the unanswered criticisms of Lamb and Resnikoff in the DOE FSEIS require us to conclude that Lamb and Resnikoff’s estimates represent a “worst case” analysis. As Holtec’s counsel emphasized at oral argument, the intensity of the 2001 Baltimore Tunnel Fire arose from the flammable contents of the railroad cars.²⁰² Because Holtec will ship spent fuel by dedicated trains, they will contain no such contents.²⁰³ Furthermore, because the Federal Railway Administration (FRA) reviews such routes, Holtec would use a route that went through the Baltimore tunnel only if the FRA deemed

200. *Id.*

201. ER, Rev. 3 at 4-34.

202. Tr. at 256.

203. *Id.* at 256-57.

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it appropriate.²⁰⁴ In short, a scenario similar to the 2001 Baltimore Tunnel Fire would be extraordinarily unlikely.

NEPA (and the NRC's implementing regulations²⁰⁵) require only a discussion of reasonably foreseeable impacts. NEPA does not require a "worst case" analysis, which "creates a distorted picture of a project's impacts and wastes agency resources."²⁰⁶ Rather, the purpose of the NRC's environmental review "is to inform the decisionmaking agency and the public of a broad range of environmental impacts that will result, with a fair degree of likelihood, from a proposed project, rather than to speculate about 'worst case' scenarios and how to prevent them."²⁰⁷

As to the second prong of Sierra Club Contention 4 – concerning the likelihood of rail accidents – we agree with both Holtec and the NRC Staff that it is not admissible. The Sierra Club has proffered no facts or expert opinions to support its assertion that Holtec relies on data that "does not incorporate recent information about rail fires and expanded traffic of oil tankers,"²⁰⁸ and therefore again fails to demonstrate a genuine dispute.

Sierra Club Contention 4 is not admitted.

204. *Id.* at 257.

205. 10 C.F.R. §§ 51.45, 51.61.

206. *Private Fuel Storage*, CLI-02-25, 56 NRC at 352.

207. *Id.* at 347.

208. Sierra Club Pet. at 25-26.

*Appendix E***5. Sierra Club Contention 5**

Sierra Club Contention 5 states:

The [Environmental Report] states that waste would be stored at the [consolidated interim storage] facility for up to 120 years until a permanent repository is found. The [Environmental Report] and the subsequent EIS must address the purpose and need and the environmental impacts if a permanent repository is not found, and the Holtec facility becomes a de facto permanent repository.²⁰⁹

Sierra Club relies on *New York v. NRC*, 681 F.3d 471, 478 (D.C. Cir. 2012) to support its conclusion that an agency “must address the alternative of a permanent repository never being developed.”²¹⁰

As Holtec²¹¹ and the NRC Staff²¹² explain in their responses, Sierra Club is incorrect as a matter of law. Although *New York v. NRC* did hold that the NRC inadequately performed its NEPA evaluation by not considering the “environmental effects of failing to secure permanent storage,” the NRC developed its Continued Storage Rule and Generic Environmental

209. *Id.* at 27.

210. *Id.* at 28.

211. Holtec Answer to Sierra Club at 35-37.

212. NRC Staff Consol. Answer at 74-75.

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Impact Statement (GEIS) as a response to the ruling.²¹³ The Continued Storage Rule addresses Sierra Club's concern directly: "The Environmental Reports . . . are not required to discuss the environmental impacts of spent nuclear fuel storage in . . . an [Independent Spent Fuel Storage Installation (ISFSI)] for the period following the term of the . . . ISFSI license."²¹⁴ The Continued Storage Rule incorporates the impact determinations from the Continued Storage GEIS, which considers the environmental impacts of short-term storage (60 years beyond license), long-term storage (100 years beyond license), and indefinite storage.²¹⁵ NRC regulations bar challenges to the Continued Storage Rule, unless the petitioner obtains a waiver from the Commission.²¹⁶ Sierra Club has not petitioned for a waiver, and therefore this contention is outside the scope of this proceeding.

Sierra Club Contention 5 is not admitted.

6. Sierra Club Contention 6

Sierra Club Contention 6 states:

An[Environmental Report]is required to discuss alternatives to the proposed action. Pursuant

213. *New York v. NRC*, 681 F.3d 471, 473 (D.C. Cir. 2012). *See* Final Rule, Continued Storage of Spent Nuclear Fuel, 79 Fed. Reg. 56,238, 56,241 (Sept. 19, 2014).

214. 10 C.F.R. § 51.23(b).

215. Continued Storage GEIS at 1-13 to -15, 5-4 to -5.

216. *See* 10 C.F.R. § 2.335(a), (b).

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to NEPA, this includes an examination of the no-action alternative. The discussion of the no-action alternative in the Holtec [Environmental Report] is deficient because it does not discuss safer storage methods at the reactor sites, such as HOSS, nor does it acknowledge the NRC's Continued Storage Rule that concludes that waste can be safely stored at the reactor site indefinitely. Furthermore, the [Environmental Report] states that the no-action alternative is a reasonable alternative that would satisfy the purpose and need for the project.²¹⁷

Sierra Club asserts that NEPA requires “substantial treatment of each alternative,” rather than what it characterizes as a “no-action alternative . . . blandly dismissed with unsupportive statements.”²¹⁸ Framed as a contention of omission, Sierra Club challenges the no-action alternative analysis in section 2.1 of Holtec's Environmental Report as deficient because it provides “no discussion of the relative benefits and costs of leaving the waste at the reactor site compared to the benefits and costs of sending waste from many reactors to the Holtec site.”²¹⁹

Contrary to Sierra Club's assertions, Holtec's Environmental Report does discuss the relative benefits

217. Sierra Club Pet. at 29-30.

218. *Id.* at 31.

219. *Id.*

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and costs of maintaining the status quo (leaving the waste at the reactor site) and implementing the proposed action. As Holtec²²⁰ and the NRC Staff²²¹ explain, table 2.5 and section 4.14 of the Environmental Report compare the environmental impacts of the project with those of the noaction alternative. Likewise section 9.2.1, section 9.2.2, and tables 9.2.1 through 9.2.5 of the Environmental Report compare the no-action alternative's costs to those of the proposed action. Sierra Club's contention does not demonstrate a genuine dispute with the application, because it challenges section 2.1 without acknowledging that other sections of the Environmental Report contain the allegedly missing analysis.

Regarding Sierra Club's concern that the no-action alternative discussion in the Environmental Report does not acknowledge the NRC's Continued Storage Rule, section 2.1 specifically says that the "No Action Alternative would not be supportive of the [NRC's] rulemaking on the Continued Storage of [spent nuclear fuel]."²²² Additionally, table 2.5.1 and section 4.14 summarize the short-and long-term impacts of at-reactor storage, as adopted from the Continued Storage GEIS.²²³ Not only does Sierra Club ignore this discussion, but it incorrectly states that the Continued Storage Rule "concludes that waste

220. Holtec Answer to Sierra Club at 40.

221. NRC Staff Consol. Answer at 76.

222. ER at 2-1.

223. *Id.* at 2-21 to -24, 4-63 to -65.

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can be safely stored at the reactor site indefinitely.”²²⁴ The Continued Storage Rule incorporates the impact determinations from the Continued Storage GEIS, which merely analyzes the environmental impacts of storing waste at the reactor site after the end of a license. It did not include an analysis of safety benefits or advocate for a particular storage method. This part of the contention does not raise a genuine dispute with the application.

Regarding Sierra Club’s assertion that the Environmental Report is deficient because it lacks a discussion of “safer storage methods . . . such as HOSS,” we agree with the NRC Staff²²⁵ and Holtec²²⁶ that Sierra Club fails to demonstrate how such a discussion would be material to the no-action alternative analysis. HOSS is a method of storage that has not been licensed, must less implemented at any reactor site. The Environmental Report is only required to analyze a no-action alternative of maintaining the status quo. Sierra Club does not explain why analyzing the unused HOSS method is necessary to analyzing the status quo.

Sierra Club Contention 6 is not admitted.

224. Sierra Club Pet. at 30, 32. *See also* Sierra Club Reply at 25 (“[T]he Continued Storage Rule determined that storage at the reactor site is safe.”).

225. NRC Staff Consol. Answer at 77.

226. Holtec Answer to Sierra Club at 38.

*Appendix E***7. Sierra Club Contention 7**

Sierra Club Contention 7 states:

Holtec relies heavily on the assertion that the Blue Ribbon Commission on America's Nuclear Future (BRC) has recommended [consolidated interim storage] as the answer to the country's nuclear waste problem. On the contrary, the BRC report should not be viewed uncritically and does not necessarily deserve blind support in assessing the Holtec application. Holtec's [Environmental Report] therefore mischaracterizes both the BRC report's conclusions and the relative risks of [consolidated interim storage] versus onsite storage. The EIS must therefore independently and fully address the relative risks and benefits of both storage options.²²⁷

Sierra Club asserts that Holtec's proposed storage facility "is dictated to a great extent by the BRC report."²²⁸ Sierra Club then further alleges that Holtec's Environmental Report mischaracterizes "both the BRC report's conclusions and the relative risks of [consolidated interim storage] versus onsite storage."²²⁹ Sierra Club claims that Holtec's Environmental Report and the NRC's subsequent EIS must independently compare the risks

227. Sierra Club Pet. at 32.

228. *Id.*

229. *Id.* at 34-35.

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and benefits of Holtec's proposed interim storage facility with the risks and benefits of storing spent fuel at the reactor sites where it was generated.

Sierra Club Contention 7 fails to raise a genuine dispute with Holtec's application, as required by 10 C.F.R. § 2.309(f)(1)(vi). Holtec's Environmental Report contains precisely the risk/benefit analysis that Sierra Club seeks,²³⁰ and Sierra Club does not challenge it.

Section 1.1 of Holtec's Environmental Report does discuss the history and background of the nation's spent fuel dilemma, including enactment of the NWPA, suspension of the Yucca Mountain project, and the 2012 BRC report. And both Sections 1 and 2 suggest that Holtec's proposed facility would better advance the preference in the BRC report for a consent-based approach to siting spent nuclear fuel. But, regardless of whether that is correct, Sierra Club fails to show how that position at all affects the analysis of options that is actually undertaken in Holtec's Environmental Report.

Sierra Club Contention 7 is not admitted.

8. Sierra Club Contention 8

Sierra Club Contention 8 states:

10 C.F.R. § 72.30 establishes requirements for decommissioning interim storage facilities.

²³⁰. ER Ch. 9; *id.* tbl. 2.5.1.

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An application for licensing a [consolidated interim storage] facility must contain a decommissioning plan explaining how the plan will satisfy the requirements in the regulation. The application for the Holtec [consolidated interim storage] facility does not comply with these requirements because the amount of funds Holtec says it will collect over the anticipated life of the project fall way short of what Holtec says are necessary for decommissioning.²³¹

Sierra Club Contention 8 challenges whether Holtec's decommissioning plan provides reasonable assurance that funds will be available to decommission the proposed facility, as required by 10 C.F.R. § 72.30. Initially, the contention appeared admissible insofar as it identified an inconsistency in Holtec's calculation of how a decommissioning fund would be established.

Specifically, in its application Holtec commits that a "decommissioning fund will be established by setting aside \$840 per MTU stored at the HI-STORE facility."²³² Holtec then calculates its initial fund contribution by multiplying \$840 by the maximum amount that may be possessed under its proposed license: 8,680 MTUs (500

231. Sierra Club Pet. at 35.

232. [Holtec] & [ELEA] Underground CISF – Financial Assurance & Project Life Cycle Cost Estimates at 5 (ADAMS Accession No. ML18058A608) [hereinafter Holtec Financial Assurance Estimates].

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loaded canisters).²³³ As Sierra Club pointed out, however, section 1.3 of Holtec’s Environmental Report initially estimated storing only 5,000 MTUs during the first year of operation.²³⁴

Acknowledging the disparity to be a mistake, Holtec has corrected its Environmental Report to conform to the 8,680 MTU figure used in its application.²³⁵ As Holtec has explained, its Environmental Report “used an early, approximate value.”²³⁶ Holtec represents that “[w]hile this may have misled the Sierra Club, the decommissioning funding calculation is, and should be, based on the limits of licensed material that will be permitted under the initial license.”²³⁷ Accordingly, the Board determines that Sierra Club Contention 8 no longer raises a genuine dispute that warrants an evidentiary hearing.²³⁸

233. Holtec Proposed License at 1 (Item 8 of the proposed license) and App. A (Technical Specifications), § 4.2.2 at 4-1. *See also* SAR at 1-4 (“Each stage is envisaged to have 8,680 MTUs.”).

234. Sierra Club Pet. at 36 (citing [Holtec] HI-STORE CIS Facility Environmental Report, at 1-6 (rev. 1 Dec. 2017)).

235. HI-STORE CIS Facility Environmental Report, at 1-7 (rev. 3 Nov. 2018).

236. Holtec Answer to Sierra Club at 45 n.93.

237. *Id.*

238. The NRC Staff initially deemed the contention admissible in part. *See* NRC Staff Consol. Answer at 79. However, in light of the amended Environmental Report, the Staff stated at oral argument that it no longer takes a position on the admissibility of Sierra Club Contention 8. Tr. at 334-35.

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Additionally, Sierra Club Contention 8 is not admissible insofar as it attempts to challenge other aspects of Holtec's decommissioning plan. For example, Sierra Club's claim that the fund would be "completely inadequate"²³⁹ is premised on an analysis that simply overlooks Holtec's assumption that its annual payments would earn a reasonable rate of return: "These funds, plus earnings on such funds calculated at not greater than a 3 percent real rate of return over the 40-year license life of the facility, will cover the estimated cost to complete decommissioning."²⁴⁰ Likewise, Sierra Club's charge that "the decommissioning costs are calculated for only the first phase of the project,"²⁴¹ overlooks the fact that the pending application only covers the first phase of the project. Holtec will be required to update its decommissioning plan in response to any "changes in the authorized possession limits."²⁴²

Finally, we find unpersuasive two arguments that Sierra Club advances belatedly in its reply. First, having initially overlooked Holtec's stated intention to rely in part on projected earnings on decommissioning fund assets, Sierra Club now dismisses Holtec's reliance on "the magic of compound interest" and claims "there is no assurance that the fund would earn 3% interest."²⁴³ But, other

239. Sierra Club Pet. at 36.

240. Holtec Financial Assurance Estimates at 5.

241. Sierra Club Pet. at 36.

242. 10 C.F.R. § 72.30(c)(3).

243. Sierra Club Reply at 28.

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than its own speculation, Sierra Club offers no evidence that a 3 percent annual rate of return over 40 years is unrealistic. Second, having likewise initially overlooked the reference to a surety method in Holtec's application,²⁴⁴ Sierra Club now challenges Holtec's failure to provide more specificity.²⁴⁵ Again, Sierra Club merely speculates that "it is doubtful that a surety company would issue a bond for this project" because "[s]urety companies only issue surety bonds when there is no possibility of risk."²⁴⁶ Even if these two arguments were not impermissibly late, we would reject them as lacking any supporting facts or expert opinions.²⁴⁷

Sierra Club Contention 8 is not admitted.

9. Sierra Club Contention 9

Sierra Club Contention 9 states:

The containers in which the waste will be transported to and stored at the Holtec [consolidated interim storage] site are

244. Holtec Financial Assurance Estimates at 5.

245. Sierra Club Reply at 29-30.

246. *Id.* at 29.

247. As set forth *infra*, the Board therefore denies as moot Holtec's motion to strike these arguments from Sierra Club's reply. *See* [Holtec's] Motion to Strike Portions of Replies of [AFES], [Joint Petitioners], [NAC], and Sierra Club (Oct. 26, 2018) at 10-11 [hereinafter Holtec Motion to Strike].

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designated for a design life of 60 years and a service life of 100 years and may present an unacceptable danger of radioactive release if they are required to remain after the end of their designated service life. Therefore, the [Environmental Report] must examine the environmental impact of the containers being used beyond their approved service life.²⁴⁸

Citing *New York v. NRC*, Sierra Club asserts that the Environmental Report “must consider all potential impacts if the [consolidated interim storage] ultimately continues to operate beyond the design life and service life.”²⁴⁹ Sierra Club also would have Holtec’s Safety Analysis Report (SAR) “analyze and evaluate the design and performance of structures, systems, and components important to safety from operation of the . . . facility . . . [p]ursuant to 10 C.F.R. § 72.45(d).”²⁵⁰

In addition to concerns about the impacts of container use beyond certified service life, Sierra Club also expresses the safety concern that “[n]either Holtec nor the source of the waste has a plan in place to deal with leaking or cracking containers.”²⁵¹ Sierra Club references a video of Holtec’s chief executive saying that he believes it

248. Sierra Club Pet. at 38.

249. *Id.* at 40 (citing *New York v. NRC*, 681 F.3d 471 (D.C. Cir. 2012)).

250. *Id.* (internal quotations omitted).

251. *Id.* at 41-42.

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is impractical to repair a canister, as support for its claim that “Holtec canisters cannot be inspected, repaired or repackaged.”²⁵² According to Sierra Club, this presents a problem not addressed by the Continued Storage GEIS, which “assumes that there will be a dry transfer system (DTS) that would retrieve waste from the casks for inspection and repackaging in new containers.”²⁵³ Sierra Club also describes Holtec’s “return to sender” proposal as one that “must be evaluated,” in light of an NRC Staff public meeting summary in which, Sierra Club claims, the NRC Staff “admitted that once a crack starts in a canister, it can grow through the wall in 16 years,”²⁵⁴ and a Nuclear Waste Technical Review Board study about geologic repositories.²⁵⁵

Regarding the environmental aspects of this contention, the Continued Storage Rule explicitly states that an applicant’s Environmental Report is not required

252. *Id.* at 41.

253. *Id.* at 40-41.

254. *Id.* at 40 (citing Memorandum to Anthony Hsia, Deputy Director, Division of Spent Fuel Storage and Transportation, NMSS, Summary of August 5, 2014, Public Meeting with the Nuclear Energy Institute on Chloride Induced Stress Corrosion Cracking Regulatory Issue Resolution Protocol (Sept. 9, 2014)).

255. *Id.* at 42 (citing Nuclear Waste Technical Review Board, *Geologic Repositories: Performance Monitoring and Retrievalability of Emplaced High-Level Radioactive Waste and Spent Nuclear Fuel* (May 2018)).

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to discuss impacts following the proposed license term.²⁵⁶ Holtec's application seeks a license for 40 years. It is not relevant to this proceeding that the HI-STORM UMAX system has a 60-year design life and a 100-year service life, or that subsequent license extensions are possible. Therefore, we agree with Holtec²⁵⁷ and the NRC Staff²⁵⁸ that Sierra Club impermissibly challenges the Continued Storage Rule and the impact evaluations contained in the Continued Storage GEIS. Because Sierra Club has not requested a waiver to challenge the GEIS, the environmental aspects of Sierra Club Contention 9 are outside the scope of this proceeding.

Regarding the safety aspects of this contention, Sierra Club has not pointed to deficient parts of the SAR and thus has not demonstrated a genuine dispute with Holtec's application. Rather, Sierra Club ignores the SAR's discussion of retrievability, inspection, and maintenance activities,²⁵⁹ and instead challenges statements made by other sources outside of the application.²⁶⁰

Sierra Club Contention 9 is not admitted.

256. 10 C.F.R. § 51.23(b).

257. *See* Holtec Answer to Sierra Club at 47-48.

258. *See* NRC Staff Consol. Answer at 80.

259. SAR at 1-39, 10-18 to -19, 15-3, 18-29 to -30.

260. For example, Sierra Club invokes statements allegedly made by NRC Staff members at an unrelated Nuclear Energy Institute public meeting in 2014 – several years before Holtec's application was filed. Sierra Club Pet. at 41.

*Appendix E***10. Sierra Club Contention 10**

Sierra Club Contention 10 states:

The proposed Holtec [consolidated interim storage] facility will accept Greater Than Class C (GTCC) waste. NRC regulations specify that GTCC waste must be disposed of in a geologic repository licensed by the NRC, unless the Commission approves an alternative land-based disposal. The Holtec facility will not be a geologic repository. The NRC has not established regulations for approving land-based disposal of GTCC waste. The proposed Holtec [consolidated interim storage] facility does not comply with the requirement for a geologic repository or land-based disposal for GTCC waste. Therefore, a license cannot be issued for this facility.²⁶¹

To support its contention, Sierra Club cites 10 C.F.R. § 61.55(a)(2)(iv), which it contends “specifies that GTCC waste must be disposed of in a geologic repository licensed by the NRC unless the Commission approves an alternative land disposal proposal.”²⁶² According to Sierra Club, the fact that the NRC initiated a rulemaking to develop regulations for land disposal amounts to an admission that the NRC “has no legal or technical basis

261. Sierra Club Pet. at 42.

262. *Id.* at 43.

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for approving a land-based disposal alternative for GTCC waste.”²⁶³

We agree with the NRC Staff²⁶⁴ and Holtec²⁶⁵ that Sierra Club Contention 10 fundamentally misconstrues the nature of Holtec’s application. Rather than *disposing* of GTCC waste under 10 C.F.R. Part 61, Holtec seeks to temporarily *store* reactor-related GTCC waste under Part 72.²⁶⁶ Specifically, Holtec seeks a license for “a complex designed and constructed for the interim storage of spent nuclear fuel.”²⁶⁷ Sierra Club, therefore, fails to raise a dispute that is material to the license Holtec seeks.

Sierra Club Contention 10 is not admitted.

263. *Id.* at 44.

264. *See* NRC Staff Consol. Answer at 82.

265. *See* Holtec Answer to Sierra Club at 55-56.

266. *See* Notice of Opportunity to Request a Hearing, 83 Fed. Reg. at 32,920 (“The NRC received an application from Holtec for a specific license pursuant to part 72 of title 10 of the *Code of Federal Regulations* (10 CFR), ‘Licensing Requirements for the Independent Storage of Spent Nuclear Fuel, High-Level Radioactive Waste, and Reactor-Related Greater Than Class C Waste.’”).

267. 10 C.F.R. § 72.3 (defining “independent spent fuel storage installation or ISFSI”).

*Appendix E***11. Sierra Club Contention 11**

Sierra Club Contention 11 states:

The [Environmental Report] and the subsequent EIS must evaluate the potential for earthquakes at the Holtec site and the environmental impact of earthquakes. Likewise, the Safety Analysis Report (SAR) must adequately evaluate the earthquake potential of the proposed site. Both the [Environmental Report] and SAR are inadequate in this respect.²⁶⁸

Sierra Club submits a map to purportedly support its allegation of “intense drilling in the area” around the proposed Holtec facility that would possibly cause earthquakes.²⁶⁹ Sierra Club also points to a 2018 geology article²⁷⁰ (the Stanford Report) that Sierra Club alleges stands for the proposition that “researchers [have] documented the existence of prior earthquakes in southeast New Mexico, and more importantly, the existence of numerous faults in the area in and around the proposed Holtec site.”²⁷¹ Sierra Club’s Contention 11

268. Sierra Club Pet. at 44.

269. *Id.*; *id.*, Ex. 5.

270. *Id.*, Ex. 6, Jens-Erik Lund Snee & Mark D. Zoback, *State of Stress in the Permian Basin, Texas and New Mexico: Implications for Induced Seismicity*, The Leading Edge (Feb. 2018) [hereinafter Stanford Report].

271. *Id.* at 44-45.

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therefore asserts both a challenge to the Environmental Report and a challenge to the SAR.

Sierra Club challenges Environmental Report section 3.3.2 by stating that the Environmental Report gives “fairly short shrift” to earthquake analysis around the proposed project site²⁷² and “essentially dismisses the likelihood of earthquakes in the area and does not mention any environmental impacts from earthquakes.”²⁷³ Sierra Club’s “main problem” with the Environmental Report’s earthquake data is that they are “historical” and allegedly do not take into account recent fracking activity around the proposed project site.²⁷⁴

Sierra Club similarly challenges SAR section 2.6, claiming that its seismic information “is historical data that does not take into account the recent increase in drilling for oil and natural gas in the area,” which allegedly induces regional earthquakes.²⁷⁵ Citing 10 C.F.R. § 72.103(f) (which, among other things, provides seismic rules for ISFSIs built west of the Rocky Mountains) and to the Stanford Report, Sierra Club again argues that (1) the SAR relies on faulty earthquake data because the data are historical and do not account for recent fracking;²⁷⁶ and

272. *Id.* at 47.

273. *Id.* at 45.

274. *Id.* at 47, 48.

275. *Id.* at 45-46.

276. *Id.* at 47-48 (citing *id.*, Ex. 7, Letter from Tommy E. Taylor, Director of [Fasken] Oil and Gas Development, to Michael

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(2) the Stanford Report directly contradicts section 2.6.3 of the SAR's assertion "that there are no surface faults at the Holtec site."²⁷⁷

We agree with Holtec and the NRC Staff that this contention is inadmissible because Sierra Club fails to show a genuine dispute with the application on a material issue of fact, contrary to 10 C.F.R. § 2.309(f)(1)(vi).²⁷⁸ Regarding the use of "historical" seismic data from 2016, Sierra Club fails to explain how or where the use of 2016 United States Geologic Survey (USGS) data in the Environmental Report section 3.3.2.1²⁷⁹ and figure 3.3.4 does not account for recent fracking activity around the proposed storage facility.²⁸⁰ Section 3.3.2.1 specifically discusses the seismic events southeast of the site in west Texas that may be due to "fluid pressure build-up from fluid injection" (i.e., fracking) as well as recent seismic activity from the late 1990s to the mid-2000s fifty miles west of the site from DOE's Waste Isolation Pilot Plant due to "injection of waste water from natural gas production" (i.e., fracking).²⁸¹

Layton, Director, NMSS (July 30, 2018) (PBRLO Scoping Comments)).

277. *Id.* at 47.

278. Holtec Answer to Sierra Club at 56; NRC Staff Consol. Answer at 86.

279. ER at 3-17.

280. *Id.* at 3-24.

281. *Id.* at 3-17.

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In other words, Holtec used the most current information available when it filed its application in 2017, and its analysis did evaluate seismic events related to fracking. Sierra Club has not put forth any information that fracking has caused significant seismic events around the proposed project site in the years since the 2016 USGS report. Therefore, Sierra Club's claim challenging the Environmental Report fails.²⁸² And Sierra Club's challenge to SAR section 2.6.2's use of USGS 2016 "historical" data and its claims of noncompliance with 10 C.F.R. § 72.103(f) (1) fails for the same reason.²⁸³

Finally, Sierra Club's claim that the Stanford Report contradicts the SAR's assertion "that there are no surface faults at the Holtec site" is also without merit. We agree with Holtec that there is no dispute between the Stanford Report and the SAR's seismic analyses.²⁸⁴ When identifying the proposed storage facility's location on Figure 1 of the Stanford Report, it shows that the nearest Quaternary fault is approximately 75 miles from the project site.²⁸⁵

282. As to the claim that Holtec does not address "environmental impacts from earthquakes" in the Environmental Report, Sierra Club Pet. at 45, Holtec's Environmental Report does analyze the HI-STORM UMAX system against credible seismic activity in the region, *see* ER at 4-61 to -65, and concludes that the environmental impact of an earthquake involving storage of spent fuel is small. *Id.* at 4-65, 6-6.

283. SAR at 2-108 to -109.

284. Holtec Answer to Sierra Club at 63.

285. *Compare* Stanford Report Fig. 1, *with* Holtec Answer to Sierra Club at 65 (republishing Stanford Report Fig. 1 but marking location of Holtec CISO).

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Moreover, Figure 3 of the Stanford Report shows that the nearest fault of any kind is approximately 40 miles from the site. Although the petitioner need not prove its case at the contention admissibility stage, it must present a genuine dispute with the application on a material fact. Sierra Club has not.²⁸⁶

Sierra Club Contention 11 is not admitted.

12. Sierra Club Contention 12

Sierra Club Contention 12 states:

The dunes sagebrush lizard, a/k/a sand dune lizard, is an endangered species pursuant to New Mexico state law and regulation. The lizard has a limited range and is specifically adapted to sand dune areas with shinnery oak. The site of the Holtec project is within the lizard's habitat range. The [Environmental Report] submitted by Holtec claims that the lizard is not present in the area of the Holtec site, but that assertion is contrary to the scientific evidence. The [Environmental Report] and the subsequent EIS must evaluate the impact of the Holtec project on the dunes sagebrush lizard and its habitat.²⁸⁷

286. Sierra Club's reference to Sierra Club Ex. 7 (PBRLO Scoping Comments) does not raise a genuine dispute with the application on a material issue of fact, because the comments constitute only speculation that fracking will be allowed near and/or immediately beneath the HI-STORE interim storage site.

287. Sierra Club Pet. at 48.

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Sierra Club challenges sections 3.4.3, 4.4.3, and 4.4.4 of the Environmental Report, questioning the result of surveys that “make no mention of the impact of the project on the lizard or its habitat.”²⁸⁸ Sierra Club also questions the results of a 2016 survey, which refers to a 2007 survey of the same area, both finding “no reptiles in the area of the Holtec site.”²⁸⁹ Sierra Club questions the 2016 survey’s methodology, asserting that the length of the 2016 survey was too short (one day), completed at the wrong time (the time of year the lizard allegedly hibernates),²⁹⁰ and that the survey was based on “casual observation.”²⁹¹ Sierra Club also states that the 2007 survey results are suspect, as the Eddy-Lea Energy Alliance (ELEA), a vocal supporter of the Holtec project, paid for the 2007 survey, from which Sierra Club infers a conflict of interest.²⁹² Sierra Club summarizes that Contention 12’s “point is that the Holtec site is within the general range of the dunes sagebrush lizard such that the [Environmental Report] should have made a more thorough evaluation of the lizard’s presence and the impacts to [it] from the Holtec project.”²⁹³ Sierra Club submits two maps in support of Contention 12, which

288. *Id.* at 49.

289. *Id.*

290. *Id.* at 51.

291. *Id.* at 50.

292. *Id.*

293. Sierra Club Reply at 33-34.

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purport to show that the proposed fuel storage facility “is likely habitat for the dunes sagebrush lizard.”²⁹⁴

We agree with Holtec²⁹⁵ and the NRC Staff²⁹⁶ that Sierra Club’s two maps offered to support Sierra Club’s Contention 12 do not in fact support Sierra Club’s assertion that the sagebrush lizard’s habitat is located at the proposed HI-STORE interim storage site. Although the maps roughly show the lizard’s habitat in the greater southwestern United States, the maps lack sufficient detail to demonstrate that the sagebrush lizard makes its home at the site of the proposed facility. As Sierra Club’s maps do not support what Sierra Club asserts,²⁹⁷ this aspect of the contention is inadmissible.

Sierra Club’s challenges to the methodology of the 2007 and 2016 surveys are not supported by any information that genuinely disputes their sufficiency. Sierra Club’s broad, unsupported speculations do not meet the Commission’s contention admissibility criteria.²⁹⁸

294. Sierra Club Pet. at 51; *id.* Exs. 8 (Dunes Sagebrush Lizard Habitat Map), 9 (Dunes Sagebrush Lizard Suitable Habitat Expanded Map).

295. Holtec Answer to Sierra Club at 66.

296. NRC Staff Consol. Answer at 89-90.

297. *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), LBP-96-2, 43 NRC 61, 90, *rev’d in part on other grounds*, CLI-96-7, 43 NRC 235 (1996).

298. 10 C.F.R. § 2.309(f)(1)(v).

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Sierra Club Contention 12 is not admitted.

13. Sierra Club Contention 13

Sierra Club Contention 13 states:

As shown in previous contentions, the Holtec [Environmental Report] is replete with errors, omissions, and blatantly incorrect statements and information. Further, Chapter 12 of the [Environmental Report] shows that a company called Tetra Tech, was the primary preparer of the [Environmental Report]. The only other preparer listed was a subcontracting company that conducted the cultural resource evaluation. Tetra Tech was accused of engaging in widespread fraud with respect to its contract with the United States Navy to clean up radioactive materials at the Hunter's Point Naval Shipyard in San Francisco, California. As such, Tetra Tech's credibility is in question and the credibility of the [Environmental Report] prepared by Tetra Tech likewise is in question.²⁹⁹

Sierra Club Contention 13 challenges the credibility of Tetra Tech, the firm that Holtec used to prepare its Environmental Report. In support, Sierra Club submits an affidavit from an attorney who filed a 10 C.F.R. § 2.206 enforcement petition alleging Tetra Tech's malperformance

299. Sierra Club Pet. at 51-52.

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at Hunter's Point Naval Yard,³⁰⁰ and also cites its challenges to specific aspects of Holtec's Environmental Report that are proffered as other contentions in this proceeding, *viz.* Sierra Club Contentions 2, 3, 5, 7, 9, 10, 11, and 12.³⁰¹

The proffered contention is inadmissible as it fails to show a genuine dispute with the licensee on a material issue of law or fact.³⁰² The Commission expects that a dispute regarding character or integrity must raise issues "*directly* germane to the challenged licensing action."³⁰³ Sierra Club has not put forth any information that suggests impropriety regarding Tetra Tech's work on the Holtec Environmental Report. Nor has Sierra Club asserted that any Tetra Tech employees involved in the Hunter's Point case were also involved in compiling Holtec's Environmental Report.

Contention 13 is not admitted.

300. *See id.*, Ex. 10, Decl. of Steven J. Castleman (June 26, 2018). *See also* 10 C.F.R. § 2.206 Petition to Revoke Materials License No. 29-31396-01, *Greenaction for Health & Env'tl. Justice v. Tetra Tech EC, Inc.* (June 28, 2018) (ADAMS Accession No. ML18178A067).

301. As to those issues cited by Sierra Club, we analyze those separately *supra*.

302. 10 C.F.R. § 2.309(f)(1)(vi).

303. *Millstone*, CLI-01-24, 54 NRC at 366-67 (emphasis added).

*Appendix E***14. Sierra Club Contention 14**

Sierra Club Contention 14 states:

An accurate thermal evaluation of the HI-STORM UMAX system is imperative to ensure that temperatures within the system will not be conducive to corrosion, cladding and other conditions that would adversely impact the safety of the system. The HI-STORM UMAX system is unique, with both air intake and exhaust vents at the top of the containment cask. The SAR for the Holtec [consolidated interim storage] facility does not provide adequate information to determine if the thermal parameters for the HI-STORM system at the Holtec [consolidated interim storage] facility will provide for adequate safety.³⁰⁴

Sierra Club claims that, although SAR Chapter 6 purports to discuss thermal evaluations for the UMAX system, it “does not address the problems presented by the fact that the UMAX cask is unique, in that the air intake and exhaust vents are at the top of the cask.”³⁰⁵ Sierra Club claims there is no assurance that “entering and exiting air flows [will] not mix” such that the canister would heat up and degrade the canister’s internal cladding.³⁰⁶ Sierra

304. Sierra Club Pet. at 56.

305. *Id.* at 57.

306. *Id.* at 57-58.

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Club further questions the safety of Holtec's redesign of the UMAX canister shims; the SAR's reliance on the computer code in its thermal calculations; the amount of high burnup fuel that would be stored at the facility and its impact on canister cladding; and Holtec's "recent announcement" that it can place spent fuel in a UMAX canister after being cooled in a spent fuel pool "for only 2.5 years."³⁰⁷

The contention is inadmissible as it does not show a genuine dispute exists with the Holtec application on a material issue of law or fact.³⁰⁸ First, even with Sierra Club's clarification that it seeks to challenge "the discussion in the SAR to determine if the thermal parameters for the HI-STORM system at the Holtec facility will provide for adequate safety,"³⁰⁹ it is barred from doing so by Commission rules.³¹⁰ SAR Chapter 6 fully incorporates by reference the HI-STORM UMAX design and thermal analyses conducted in the HI-STORM UMAX's own Final Safety Analysis Report (FSAR).³¹¹ The HI-STORM UMAX system was added to the list of approved spent fuel storage casks in a March 2015 final

307. *Id.* at 58-60.

308. 10 C.F.R. § 2.309(f)(1)(vi).

309. Sierra Club Reply at 37.

310. *See* 10 C.F.R. § 2.335(a); *id.* § 72.46(e).

311. *See* SAR ch. 6 (incorporating by reference Docket 72-1040, Certificate of Compliance No. 1040, "[FSAR] on the HI-STORM UMAX Canister Storage System" (June 2018) (ADAMS Accession No. ML16193A336)).

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rule,³¹² and has been subsequently amended by further rulemaking.³¹³ 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 its Contention 14 (i.e., cooling system, thermal evaluations through use of software, and canister shim designs) are barred in this proceeding by sections 2.335 and 72.46(e).

Sierra Club's assertion regarding high burnup fuel also does not raise a genuine dispute with the application, as the SAR clearly states that the multi-purpose canisters to be "stored at [the facility] are limited to those included in the HI-STORM UMAX FSAR."³¹⁴ The HI-STORM UMAX FSAR Chapter 4, in turn, prescribes the permissible heat load per storage cell for the allowed canisters at the UMAX (the MPC-37 and MPC-89).³¹⁵

312. List of Approved Spent Fuel Storage Casks: [Holtec] HI-STORM [UMAX] Canister Storage System, Certificate of Compliance No. 1040, 80 Fed. Reg. 12,073, 12,073-78 (Mar. 6, 2015).

313. 10 C.F.R. § 72.214 Certificate Number 1040. *See* Direct Final Rule, List of Approved Spent Fuel Storage Casks: Holtec International HI-STORM UMAX Canister Storage System, Certificate of Compliance No. 1040, Amendment No. 1, 80 Fed. Reg. 53,691 (Sept. 8, 2015); Direct Final Rule, List of Approved Spent Fuel Storage Casks: Holtec International HI-STORM UMAX Canister Storage System; Certificate of Compliance No. 1040, Amendment No. 2, 82 Fed. Reg. 8805 (Jan. 31, 2017).

314. SAR at 4-5.

315. *See, e.g.*, FSAR on the HI-STORM UMAX Canister Storage System, Rev. 3 at 4-31 (June 29, 2016) (ADAMS Accession No. ML16193A339) [hereinafter UMAX FSAR].

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Finally, Sierra Club's passing reference that Holtec will be storing fuel in UMAX canisters that have been cooled less than three years also does not establish a genuine dispute with the application. First, Sierra Club does not offer any evidence of this statement by Holtec. Second, UMAX FSAR table 2.1.1, which is incorporated by reference into the proposed facility's SAR, states a minimum cooling time of three years for both MPC-37 and MPC-89 canisters.³¹⁶ Finally, any change to its three year cooling requirements would require Holtec to request an amendment to the Certificate of Compliance, which Holtec has not done.³¹⁷ Thus, there is no genuine dispute with the application.³¹⁸

Sierra Club Contention 14 is not admitted.

316. *See* UMAX FSAR tbl. 2.1.1 at 2-25.

317. *See* 10 C.F.R. § 72.244 (application for amendment of a certificate of compliance).

318. Sierra Club also asserted that it should be "allowed to intervene and conduct discovery," Sierra Club Pet. at 59, because the Commission's "SUNSI procedure is onerous, burdensome, lengthy and expensive." Sierra Club Reply at 37. All petitioners in this proceeding were afforded extra time to request the SUNSI (sensitive unclassified non-safeguards) information. *See* Notice of Opportunity to Request a Hearing, 83 Fed. Reg. at 32,922; Order Denying Motions to Dismiss. If counsel for Sierra Club seeks to change the Commission's SUNSI rules, this proceeding is not the forum in which to do so.

*Appendix E***15. Sierra Club Contention 15**

Sierra Club Contention 15 states:

The [Environmental Report] fails to adequately determine whether shallow groundwater exists at the site of the proposed [consolidated interim storage] facility. It is important to make this determination in order to assess the impact of a radioactive leak from the [consolidated interim storage] facility on the groundwater.³¹⁹

Sierra Club bases this contention on the first of five comments in the declaration of George Rice, a groundwater hydrologist.³²⁰ His comment disputes Holtec's finding that no shallow groundwater exists at the proposed site. Mr. Rice explains that Holtec installed five wells on the site: four in the Dockum (the shale, siltstone, and sandstone layer of earth) and one in the alluvial/Dockum interface (where the alluvial layer of earth meets the lower Dockum layer).³²¹ Although no water or saturated conditions were encountered at the alluvium/Dockum well, Mr. Rice claims that well "represents only one point in the 1040 acre site" and that groundwater could still be present despite the materials appearing unsaturated.³²² He asserts that the

319. Sierra Club Pet. at 60.

320. *See id.*, Decl. of George Rice, Comments on Proposed Facility (Sept. 6, 2018) [hereinafter Rice Decl.].

321. *Id.* at 2-3.

322. *Id.*

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alluvium/Dockum well “has not been checked for the presence of water since 2007,” which is “significant since shallow aquifers may be intermittently saturated.”³²³ Mr. Rice explains Sierra Club’s main concern: “If contaminants leak from the facility, they could be transported by shallow groundwater underlying the site.”³²⁴

Holtec’s Environmental Report concludes that “[i]mpacts to groundwater would not be expected, due to the depth of groundwater and the fact that the CIS Facility would not release pollutants, including radionuclides, during normal operations.”³²⁵ Nor would a release of radioactive material occur, Holtec’s Environmental Report asserts, during any credible off-normal event³²⁶ or accident.³²⁷ Sierra Club disputes the first conclusion – that impacts to groundwater would not be expected due to depth. However, Sierra Club offers no support for its challenge to Holtec’s second conclusion – that, in any event,

323. *Id.* at 2.

324. *Id.* at 1.

325. ER at 4-13.

326. *Id.* at 4-56.

327. *Id.* at 4-57. Additionally, the HI-STORM UMAX FSAR concludes in section 2.0.6 that “[t]he MPC provides for confinement of all radioactive materials for all design basis normal, off-normal, and postulated accident conditions. As discussed in Chapter 7 of the HI-STORM [flood and wind], [multi-purpose canister] design meets the guidance in the Interim Staff Guidance (ISG)-18 so that leakage of radiological matter from the confinement boundary is non-credible.”

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the facility would not release pollutants into groundwater during any credible event.

In its reply, Sierra Club points to its Contentions 9, 14, 20, and 23 as examples of “issues that create a risk of leaks during storage.”³²⁸ As discussed elsewhere, we do not admit those contentions, and do not find them to be adequate support for Sierra Club Contention 15. Sierra Club fails to explain why the Environmental Report is wrong to conclude that “[t]here is no potential for a liquid pathway because the [spent nuclear fuel] contains no liquid component and the casks are sealed to prevent any liquids from contacting the [spent nuclear fuel] assemblies”³²⁹ and the interim storage facility’s HI-STORM UMAX system would not release any radioactive material even when subjected to “the effects of all credible and hypothetical accident conditions and natural phenomena.”³³⁰ As the Commission explained in *Private Fuel Storage*, “[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 of the cask.”³³¹ Sierra Club has not done this. Sierra Club Contention 15 is not admitted.

328. Sierra Club Reply at 38.

329. ER at 1-8.

330. *Id.* at 4-62.

331. *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-04-22, 60 NRC 125, 138-39 (2004).

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16. Sierra Club Contention 16

Sierra Club's originally-filed Contention 16 stated:

The [Environmental Report] does not contain any information as to whether brine continues to flow in the subsurface under the Holtec site.³³²

On February 18, 2019, Sierra Club filed a motion to amend Contention 16 to address Requests for Additional Information (RAI) submitted by NRC Staff to Holtec and Holtec's Responses.³³³ Sierra Club's amended contention would add two more sentences:

Holtec has not properly accounted for mechanisms that could allow corrosive material to reach cavity enclosure containers (CECs) and/or spent fuel canisters. Holtec's Aging Management Program would be insufficient to address the problem of groundwater impacting the integrity of the spent fuel containers.³³⁴

On March 11 and 15, 2019, Holtec and the NRC Staff, respectively, filed responses in opposition to Sierra Club's

332. Sierra Club Pet. at 62.

333. Sierra Club's Motion to Amend Contention 16 (Feb. 18, 2019) [hereinafter Sierra Club Motion to Amend Contention 16].

334. *Id.* at 9.

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motion to amend Contention 16.³³⁵ In its motion, Sierra Club claims that “NRC Staff perspective set forth in RAIs 17-12 and 17-14 presents a context for the Holtec documentation that is materially different than the context in which Holtec had previously presented the discussion of groundwater and its effect on the containers in the CIS facility.”³³⁶ Sierra Club points to Holtec’s response about brine in RAI 17-12 and about CEC wall thinning in RAI 17-14.³³⁷ According to Sierra Club, because Holtec did not provide this information in its answers to Sierra Club’s petition, the information qualifies as new.³³⁸ Sierra Club bases its amended contention on Holtec’s responses to the RAIs and on the declaration of Dr. Gordon Thompson, who also supports Sierra Club Contention 2.³³⁹

For both its original and amended contention, Sierra Club also relies on the second of five comments in George Rice’s declaration. This comment explains that “[t]wo brine disposal facilities once operated in the northeast portion of the [proposed] site” and in 2007 a water sample from a spring flowing in that area tested as brine.³⁴⁰ Mr.

335. See [Holtec’s] Opposition to Motion by Sierra Club to Amend Contention 16 (Mar. 11, 2019); NRC Staff Response to Sierra Club Motion to Amend Contention 16 (Mar. 15, 2019).

336. Sierra Club Motion to Amend Contention 16, at 6.

337. *Id.* at 6-7.

338. *Id.*

339. *Id.* at 9.

340. Rice Decl. at 6.

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Rice then asks the applicant: “Do the springs/seeps that were flowing in 2007 continue to flow? Is brine moving along perched zones in the alluvial materials, or along the alluvium/Dockum interface? Could the brine come into contact with the canisters?”³⁴¹

As described *supra*, the Board will consider an amended contention filed after the original deadline only if the petitioner demonstrates good cause under the three-pronged test of 10 C.F.R. § 2.309(c)(1). Here, we agree with the NRC Staff and Holtec that Joint Petitioners have failed to demonstrate good cause, because the information upon which they base their amended contention was previously available. As the NRC Staff correctly argues: “The legal standard is not whether Holtec’s RAI responses differ from the arguments it raised in its Answer to the Petition, but whether the factual information underpinning Holtec’s RAI responses was previously available – for example, in the SAR or [Environmental Report].”³⁴²

We conclude that Sierra Club has not shown any materially different or new information in Holtec’s RAI responses. Dr. Thompson’s report primarily restates Holtec’s RAI responses verbatim. His substantive comments do not engage with the responses, other than to claim that they “exhibit unwarranted optimism.”³⁴³

341. *Id.*

342. NRC Staff Response to Sierra Club Motion to Amend Contention 16, at 6.

343. Dr. Gordon R. Thompson Decl. for Sierra Club (Feb. 12, 2019) at 22, 23, 25.

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Rather, he focuses on Holtec's alleged failure to analyze climate change³⁴⁴ and alleged lack of capability to perform credible inspections of spent fuel canisters or CECs.³⁴⁵ Both of these critiques could have been made at the outset of this proceeding based solely on the SAR. The same is true for Mr. Rice's second comment, because Sierra Club cites the exact same comment as a basis for its originally-filed Contention 16.³⁴⁶ And pointing to the RAI responses, without more, will rarely provide sufficient support for an admissible contention.³⁴⁷

Because Sierra Club has failed to meet the good cause standard under 10 C.F.R. § 2.309(c)(1), we deny Sierra Club's motion to amend Contention 16. Accordingly, we consider Sierra Club Contention 16 as originally filed.

We conclude that Sierra Club does not provide an adequate basis for its single-sentence Contention 16. As Holtec points out, Mr. Rice's Figure 1 and detailed subsurface profiles in the Environmental Report show that the proposed facility would be located above the interface between the alluvium/Dockum, where Mr. Rice suggests that shallow groundwater may exist.³⁴⁸ Furthermore, the SAR describes how the spent nuclear

344. *Id.* at 22-23.

345. *Id.* at 25.

346. Sierra Club Pet. at 63.

347. See *PPL Susquehanna, LLC* (Susquehanna Steam Electric Station, Units 1 and 2), CLI-15-8, 81 NRC 500, 506 (2015).

348. Holtec Answer to Sierra Club at 85-86.

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fuel will be contained in a steel canister within a steel CEC and concludes that “the CEC is a closed bottom, open top, thick walled cylindrical vessel that has no penetrations or openings. Thus, groundwater has no path for intrusion into the interior space of the CEC.”³⁴⁹ Sierra Club does not dispute these conclusions or provide any other reason for how brine could affect the canisters. “[N]either mere speculation nor bare or conclusory assertions, even by an expert, alleging that a matter should be considered will suffice to allow the admission of a proffered contention.”³⁵⁰

Sierra Club Contention 16 is not admitted.

17. Sierra Club Contention 17

Sierra Club Contention 17 states:

The [Environmental Report] and SAR do not discuss the presence and implications of fractured rock beneath the Holtec site. These fractures could allow radioactive leaks from the [consolidated interim storage] facility to enter groundwater or for the brine described in Contention 16 to corrode the containers contain[ing] the radioactive material.³⁵¹

349. SAR at 1-14; *id.* at 1-24 (Fig. 1.2.2(a)).

350. *Southern Nuclear Operating Co.* (Early Site Permit for Vogtle ESP Site), LBP-07-3, 65 NRC 237, 253 (2007) (citing *Fansteel*, CLI-03-13, 58 NRC at 203).

351. Sierra Club Pet. at 63-64.

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Sierra Club bases this contention on the third of five comments in the declaration of George Rice.³⁵² Mr. Rice claims that “[f]ractures are common at the site” and that “[s]ome portions of both [the Santa Rosa and Chinle] formations are described as *highly fractured*[.] . . . in the logs of monitor wells.”³⁵³ He asserts that these fractures “could rapidly convey contaminants to underlying groundwater.”³⁵⁴

As in its Contentions 15 and 16, Sierra Club does not provide adequate support for its contention. Holtec’s Environmental Report concludes: “Impacts to groundwater would not be expected, due to the depth of groundwater and the fact that the CIS Facility would not release pollutants, including radionuclides, during normal operations.”³⁵⁵ Nor would a release of radioactive material occur, Holtec’s Environmental Report asserts, during any credible off-normal event³⁵⁶ or accident.³⁵⁷

352. *See* Rice Decl. at 6.

353. *Id.*

354. *Id.*

355. ER at 4-13.

356. *Id.* at 4-56.

357. *Id.* at 4-57. Additionally, as discussed *supra*, the HI-STORM UMAX FSAR concludes in section 2.0.6 that “[t]he MPC provides for confinement of all radioactive materials for all design basis normal, off-normal, and postulated accident conditions. As discussed in Chapter 7 of the HI-STORM [flood and wind], [multi-purpose canister] design meets the guidance in the Interim Staff Guidance (ISG)-18 so that leakage of radiological matter from the confinement boundary is non-credible.”

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It also states that “[t]here is no potential for a liquid pathway because the spent fuel contains no liquid component and the casks are sealed to prevent any liquids from contacting the spent fuel assemblies.”³⁵⁸ Holtec’s SAR concludes that “the CEC is a closed bottom, open top, thick walled cylindrical vessel that has no penetrations or openings. Thus, groundwater has no path for intrusion into the interior space of the CEC.”³⁵⁹ Sierra Club does not explain why these conclusions are false or questionable, such that contaminants could be conveyed to underlying groundwater. In its reply, Sierra Club does not elaborate on a rationale for its contention except to offer the conclusory statement that “[t]here is sufficient information to raise the specter of leaks from the casks into the groundwater.”³⁶⁰ “[N]either mere speculation nor bare or conclusory assertions, even by an expert, alleging that a matter should be considered will suffice to allow the admission of a proffered contention.”³⁶¹

Sierra Club Contention 17 is not admitted.

358. *Id.* at 7-1.

359. SAR at 1-14; *id.* at 1-24 (Fig. 1.2.2(a)).

360. Sierra Club Reply at 39.

361. *Vogtle*, LBP-07-3, 65 NRC at 253 (citing *Fansteel*, CLI-03-13, 58 NRC at 203).

*Appendix E***18. Sierra Club Contention 18**

Sierra Club Contention 18 states:

The Santa Rosa Formation is an important aquifer in the area of the Holtec site. It is used for domestic water supply, stock watering and irrigation. The Holtec [Environmental Report] has not adequately determined and discussed the possibility that waste-contaminated groundwater could reach the Santa Rosa Formation.³⁶²

Sierra Club bases this contention on the fourth comment in the declaration of George Rice.³⁶³ His fourth comment states that “the top of the Santa Rosa [Formation] is approximately 215 feet below land surface.”³⁶⁴ It also describes how Holtec’s monitor well B101 is located in the Santa Rosa Formation, and “the depth to water in the well is about 250 feet. The quality of this water has not been determined.”³⁶⁵ Mr. Rice claims that “the possibility that waste-contaminated groundwater could reach the Santa Rosa Formation cannot be dismissed.”³⁶⁶

362. Sierra Club Pet. at 65.

363. Rice Decl. at 7.

364. *Id.* (citing GEI Consultants, HI-STORE CISF Phase 1 Site Characterization, Lea County, New Mexico at 80 (Dec. 2017) [hereinafter GEI]).

365. *Id.* (citing GEI at 36).

366. *Id.*

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We agree with Holtec that Sierra Club has put “forth an unsupported hypothetical and demand[ed] that the applicant prove the negative.”³⁶⁷ While it may be true that the Santa Rosa Formation is an important source of groundwater located in Lea County,³⁶⁸ Sierra Club has not demonstrated any support for its claim that waste-contaminated groundwater from the proposed facility could reach that formation. As explained *supra*, Holtec’s Environmental Report concludes: “Impacts to groundwater would not be expected, due to the depth of groundwater and the fact that the CIS Facility would not release pollutants, including radionuclides, during normal operations”³⁶⁹ or during any credible off-normal event³⁷⁰ or accident.³⁷¹

Sierra Club appears to implicitly dispute the second conclusion – that the proposed facility would not release pollutants into groundwater. However, Sierra Club does not provide any rationale to support its expert’s conclusory statements or explain why the Environmental Report is wrong to conclude that “[t]here is no potential for a liquid pathway because the spent fuel contains no liquid component and the casks are sealed to prevent any liquids from contacting the spent fuel assemblies.”³⁷²

367. Holtec Answer to Sierra Club at 89.

368. ER at 3-59 to -60.

369. *Id.* at 4-13.

370. *Id.* at 4-56.

371. *Id.* at 4-57.

372. *Id.* at 7-1.

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Sierra Club Contention 18 is not admitted.

19. Sierra Club Contention 19

Sierra Club Contention 19 states:

Holtec performed two sets of packer tests in the Santa Rosa Formation to estimate the hydraulic conductivity (permeability) of the formation. These tests were conducted in conjunction with the preparation of the [Environmental Report]. It does not appear from the report of Holtec's consultant that these tests were conducted properly. Therefore, the [Environmental Report] has not presented an adequate evaluation of the affected environment.³⁷³

Sierra Club bases this contention on the fifth and final comment in the declaration of George Rice. His comment describes how Holtec performed two sets of packer tests in the Santa Rosa.³⁷⁴ He claims that Holtec allegedly did not follow three of the recommendations in the U.S. Bureau of Reclamation's Field Manual: (1) "the applicant does not appear to have cleaned the hole before conducting packer tests;" (2) "there is no description of the water used in the tests;" and (3) "the test duration appears to be too short."³⁷⁵ Accordingly, Sierra Club claims that "the results

373. Sierra Club Pet. at 66.

374. Rice Decl. at 8.

375. *Id.* (citing 2 U.S. Bureau of Reclamation, Engineering Geology Field Manual, ch. 17 (2d ed. 2001)).

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of the packer tests are unreliable and do not satisfy the requirements of 10 C.F.R. § 51.45.”³⁷⁶

We agree with the NRC Staff³⁷⁷ and Holtec³⁷⁸ that Sierra Club fails to show how this contention is material, because it has failed to show how the results of the packer tests would make a difference in the outcome of the licensing proceeding. Mr. Rice admitted in his declaration that “even when the tests are done properly, the values obtained are only semi-quantitative – within an order of magnitude of the actual value.”³⁷⁹ Although Sierra Club asserts that “[t]he permeability of the site is certainly important to assessing whether the site is appropriate for the proposed CIS facility,”³⁸⁰ Sierra Club does not describe how the permeability is material or how the asserted departures from the U.S. Bureau of Reclamation’s recommendations would have significance for any analysis or conclusion in the Environmental Report. Presumably, Sierra Club is implicitly expressing the same concern as Contentions 15 through 18 – that groundwater may become contaminated – but, as we explained *supra*, Sierra Club never links its concern about groundwater with an explanation for how groundwater could possibly come into contact with any contaminant from the storage facility.

376. Sierra Club Pet. at 67.

377. NRC Staff Consol. Answer at 106-07.

378. Holtec Answer to Sierra Club at 90-91.

379. Rice Decl. at 8.

380. Sierra Club Pet. at 66.

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Mr. Rice merely speculates that the acceptable guidance may not have been followed.³⁸¹ Again, speculation, even by an expert, fails to provide the requisite support for an admissible contention.³⁸²

Sierra Club Contention 19 is not admitted.

20. Sierra Club Contention 20

Sierra Club Contention 20 states:

Since the 1990's almost all spent nuclear fuel being generated is high burnup fuel (HBF). HBF causes the cladding to become thinner, creating a higher risk of release of radioactive material. The cladding also becomes more brittle, with additional cracks. This situation causes risks to short-term and long-term dry storage. This issue is not adequately addressed in the SAR and high burnup fuel does not appear to be addressed in the [Environmental Report] at all. Cladding failure due to high burnup fuel is an issue that must be adequately addressed.³⁸³

381. Rice Decl. at 8 (“[T]he applicant *does not appear* to have followed several of the recommendations in the manual.”) (emphasis added).

382. *Vogtle*, LBP-07-3, 65 NRC at 253 (citing *Fansteel*, CLI-03-13, 58 NRC at 203).

383. Sierra Club Pet. at 67.

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Sierra Club's Contentions 20 through 24 concerning high burnup fuel are supported by Dr. Marvin Resnikoff, who asserts expertise in radioactive waste.³⁸⁴

Sierra Club proffers Contention 20 based on the assertion that, because “[h]igh burnup fuel causes the cladding around the fuel to become thinner and more brittle, inducing cracking,” high burnup fuel containers are “more likely to leak radioactive material.”³⁸⁵ Arguing that high burnup fuel is “dangerously unpredictable and unstable in storage,” Sierra Club cites a 2013 DOE report that suggests outstanding issues regarding cladding and high burnup fuel should be resolved before this fuel type can be safely loaded, transported, and stored.³⁸⁶ Citing a 2010 study by the U.S. Nuclear Waste Technical Review Board,³⁸⁷ Sierra Club claims that zirconium cladding experiences a twelve percent thinning due to the effects of high burnup, and “the likelihood of cladding defects increase” when storing high burnup fuel.³⁸⁸ In sum, Sierra Club argues the Environmental Report and SAR must

384. *See id.*, Resnikoff Aff. ¶ 3.

385. Sierra Club Pet. at 67-68.

386. *Id.* at 68-69 (citing DOE, *A Project Concept for Nuclear Fuels Storage and Transportation, Fuel Cycle Research & Development*, (rev. 1 June 2013)).

387. U.S. Nuclear Waste Transp. Review Bd., *Evaluation of the Technical Basis for Extended Dry Storage and Transportation of Used Nuclear Fuel* (Dec. 2010).

388. Sierra Club Pet. at 70.

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“discuss and evaluate the risks of transporting and storing [high burnup fuel].”³⁸⁹

To the extent Sierra Club Contention 20 raises safety claims concerning transportation and storage, it is inadmissible because it fails to raise a genuine dispute with the application on a material issue of law or fact. First, Part 71 and U.S. Department of Transportation regulations establish the standards for transporting spent nuclear fuel – not for storing fuel at an interim storage facility. This aspect of the contention does not raise a genuine dispute with Holtec’s Part 72 license application. Moreover, regarding storage of high burnup fuel (and consistent with our conclusion in connection with Sierra Club’s related Contention 14 *supra*), the analyses and bounding technical specifications are contained in HI-STORM UMAX’s FSAR and Certificate of Compliance, which is incorporated by reference into the HI-STORE facility’s SAR.³⁹⁰ As Commission regulation bars any admitted contention based on an NRC-approved storage cask design incorporated by reference in an ISFSI application,³⁹¹ this facet of Sierra Club Contention 20 is inadmissible.

The claim that Holtec’s Environmental Report fails to address high burnup fuel in transport also does not raise a genuine dispute because it ignores the application.

389. *Id.*

390. *See, e.g.*, SAR at 16-1.

391. *See* 10 C.F.R. § 72.46(e).

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Environmental Report section 4.9³⁹² provides the results of a RADTRAN analysis that evaluated the incident-free radiological transportation impacts assuming the maximum dose rate allowed for exclusive use shipments under NRC regulation 10 C.F.R. § 71.47(b)(3). This would encompass spent fuel of any burnup, including high burnup fuel. With respect to potential impacts to transportation workers and the radiological transportation impacts that could potentially occur during accidents, ER section 4.9 bases its analyses on DOE calculations concerning incident-free and accident radiological impacts in the Yucca Mountain final supplemental EIS,³⁹³ which in turn addresses the transportation of high burnup fuel.

Finally, the claim that storage of high burnup fuel is omitted from Holtec's Environmental Report also raises no genuine dispute. Sections 4.12 and 4.13 of the Environmental Report, which concern public and occupational health from normal operations and off-normal operations and accidents, speak to the storage of high burnup fuel.³⁹⁴ As there are no separate regulatory requirements regarding high burnup fuel, section 4.12 relies on the Continued Storage GEIS in its analyses

392. ER at 4-30.

393. DOE, Final Supplemental EIS for a Geological Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada, DOE/EIS-0250F-S-1, at G-34 (June 2008).

394. ER 4-16 to -17, 4-46 to -48.

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of dose to the public and its workers.³⁹⁵ Section 4.13 specifically incorporates by reference the UMAX FSAR, which addresses credible accidents and high burnup fuel.³⁹⁶ Therefore, to the extent the contention asserts that Holtec omitted discussion of high burnup fuel storage, it is inaccurate. A contention of omission must be summarily rejected if “the topic that allegedly is omitted is, in fact, included with the application.”³⁹⁷

Sierra Club Contention 20 is not admitted.

21. Sierra Club Contention 21

Sierra Club Contention 21 states:

There is no experimental support for the safe transportation and storage of [High Burnup Fuel]. Holtec must show that safety is assured not only for hypothetical accident conditions, but also for real life accident conditions. Holtec has not done that in this case.³⁹⁸

Sierra Club argues that, under section 72.108, “the transportation of [high burnup fuel] especially must

395. *Id.* at 4-48.

396. *Id.* at 4-61.

397. *USEC Inc.* (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 456 (2006).

398. Sierra Club Pet. at 70.

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be addressed in the [Environmental Report].”³⁹⁹ Sierra Club’s basis for the contention is that there is a lack of data concerning high burnup fuel transportation guidance for applicants to meet certain Part 71 requirements.⁴⁰⁰ Citing NRC Interim Staff Guidance 11 (ISG-11)⁴⁰¹ in which the NRC Staff sets a “case-by-case” standard for the transportation of high burnup fuel, Sierra Club broadly claims that Holtec “has not met this test.”⁴⁰² Sierra Club then points out issues with the ISG-11 document itself, stating that, although the Staff is still reviewing data on high burnup fuel and cladding issues vis-à-vis transportation, there is a question concerning what exactly the Staff’s methodology is.⁴⁰³ Ultimately, Sierra Club wants Holtec’s Environmental Report to “address real life accident conditions based on the specific facts of this case.”⁴⁰⁴

Although the wording of Contention 21 mentions “safe transportation and storage,” none of the supporting bases or facts on which Sierra Club relies address storage at all. Thus, the storage portion of Contention 21 is inadmissible

399. *Id.* at 71.

400. *Id.* at 70.

401. Spent Fuel Project Office, NMSS, Interim Staff Guidance, Cladding Considerations for the Storage and Transportation of Spent Fuel (Nov. 17, 2003).

402. Sierra Club Pet. at 71-72.

403. *Id.* at 71.

404. *Id.* at 72.

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for failure to cite any alleged facts or expert opinion on which Sierra Club would rely at an evidentiary hearing.⁴⁰⁵

The remainder of the contention is inadmissible because it fails to raise a genuine dispute on a material issue with Holtec's application for a consolidated interim storage facility. Again, Sierra Club declines to grapple with the application at hand – Holtec's HI-STORE application to store spent fuel under Part 72 – and instead it broadly asserts that Holtec does not meet a “case-by-case” transportation standard for high burnup fuel transportation (as set forth in an NRC non-binding guidance document). Sierra Club also fails to specifically explain how Holtec fails to meet this standard. Bald assertions that an application is insufficient or inadequate, without more, do not meet the Commission's contention admissibility standard.⁴⁰⁶

Sierra Club Contention 21 is not admitted.

22. Sierra Club Contention 22

Sierra Club Contention 22 states:

With high burnup fuel hydrogen absorption into the Zircaloy metal can lead to hydrogen embrittlement (loss of cladding ductility) of the cladding. Vibrations during transport will lead

405. 10 C.F.R. § 2.309(f)(1)(v).

406. *Nuclear Management Co.* (Palisades Nuclear Plant), LBP-06-10, 63 NRC 314, 341, *aff'd*, CLI-06-17, 63 NRC 727 (2006)).

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to further degradation of the cladding. Nothing in the Holtec documentation shows that Holtec has addressed this issue in this case.⁴⁰⁷

Reflecting its continuing concern with the transport of high burnup fuel, Sierra Club alleges that Holtec's Environmental Report "has not adequately made the evaluation of the loss of ductility on the fuel rods due to the [high burnup fuel] and the likelihood of material strength and a release of radioactive material" in accordance with 10 C.F.R. § 72.108.⁴⁰⁸ Arguing that hydrogen absorption into the zircaloy cladding (hydrides) can lead to cladding embrittlement, Sierra Club claims that this ultimately could "lead to delayed hydride cracking."⁴⁰⁹ Finally, Sierra Club reasserts its claim from Contention 21 that Holtec does not meet the spent fuel transportation "case-by-case" test set forth in ISG-11, and that the Environmental Report must address "real life accident conditions."⁴¹⁰

As with Contention 21, Sierra Club Contention 22 is inadmissible for failure to raise a genuine dispute with the application on a material issue of law or fact. We agree with the NRC Staff's assessment that, while section 72.108 requires the applicant to consider impacts from

407. Sierra Club Pet. at 72.

408. *Id.* at 72-73.

409. *Id.* at 73 (quoting Chan, *An Assessment of Delayed Hydride Cracking in Zirconium Alloy Cladding Tubes Under Stress Transients* (2006)).

410. *Id.*

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transportation in the Environmental Report, “it does not require that the environmental report prove the safety of transportation packages.”⁴¹¹ Moreover, the Commission’s Part 71 regulations already address and preempt the issues Sierra Club seeks to litigate in this contention.⁴¹² And Sierra Club’s identical argument concerning the “case-by-case” test in ISG-11 is inadmissible for the same reason we found it inadmissible in Contention 21.

Sierra Club Contention 22 is not admitted.

23. Sierra Club Contention 23

Sierra Club Contention 23 states:

Spent fuel cladding must be protected during storage against degradation that leads to gross ruptures in the fuel or the fuel must be otherwise confined such that the degradation of the fuel during storage will not pose operational safety problems with respect to its removal from storage. It is the responsibility of the licensee to ensure that fuel placed in dry storage meets the design-basis conditions. If [high burnup fuel] develops gross cladding defects during transportation, Holtec has not described how such defects could be detected.

411. NRC Staff Consol. Answer at 116.

412. *See* 10 C.F.R. § 71.71(c)(1)(5) (vibration incident to transport of spent fuel); *id.* § 71.73 (analyses of required transport accident conditions).

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If [high burnup fuel] develops gross cladding defects and the fuel cannot be accepted at a waste repository, the fuel will remain at the proposed [consolidated interim storage] facility indefinitely.⁴¹³

Citing 10 C.F.R. § 72.122(h)(1), Sierra Club argues that Holtec must protect the spent fuel cladding “against degradation that leads to gross ruptures in the fuel or the fuel must be otherwise confined such that the degradation of the fuel during storage will not pose operational safety problems” when the fuel is retrieved from storage.⁴¹⁴ Sierra Club then asserts that Holtec “has not specified how it will address the safety issues inherent in the gross cladding defects due to [high burnup fuel].”⁴¹⁵ Sierra Club also claims that Holtec has not described how either of these defects will be detected if they occur during transportation or how the high burnup fuel will be managed once that fuel is “transported to a repository.”⁴¹⁶

Contention 23 cannot be admitted because it fails to show that a genuine dispute exists with the Holtec application on a material issue of law or fact. First, Sierra Club does not identify which part of the application it

413. Sierra Club Pet. at 73-74.

414. *Id.* at 74.

415. *Id.*

416. *Id.* at 75.

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disputes, as specifically required.⁴¹⁷ Second, Sierra Club does not address the analyses that support Holtec's claim that it does comply with section 72.122(h)(1), which are provided in the FSAR for the HI-STORM UMAX system and incorporated by reference in Holtec's SAR.⁴¹⁸ And as Holtec points out, the HI-STORM UMAX system has already been certified by the NRC through its independent analyses and publication of its own Safety Evaluation Report (SER).⁴¹⁹ Indeed, the NRC Staff in 2015 concluded that fuel stored in the UMAX system would be maintained at a temperature below ISG-11 Revision 3 standards (i.e., below 400°C) and accordingly determined that the system complied with section 72.122(h)(1) as it relates "to thermal analysis, fuel cladding integrity and fuel retrievability."⁴²⁰ As the HI-STORM UMAX canister system has already been certified compliant by the NRC,⁴²¹ a petitioner is barred by regulation from challenging

417. 10 C.F.R. § 2.309(f)(1)(vi).

418. *See, e.g.*, SAR Ch. 6 (incorporating by reference Docket No. 72-1040, Certificate of Compliance No. 1040, "[FSAR] on The HI-STORM UMAX Canister Storage System" (June 2018) (ADAMS Accession No. ML16193A336)).

419. Holtec Answer to Sierra Club at 113-14 (citing SER, Docket No. 72-1040, HI-STORM UMAX Canister Storage System, Holtec, Certificate of Compliance No. 1040, at 15 (Apr. 2015) (ADAMS Accession No. ML15093A510) [hereinafter HI-STORM UMAX SER]).

420. HI-STORM UMAX SER at 4-5, -19, -22 to -23, -37.

421. 10 C.F.R. § 72.214 (Certificate Number 1040).

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either the Staff's SER or the UMAX SAR analyses in an adjudication.⁴²²

Sierra Club Contention 23 is not admitted.

24. Sierra Club Contention 24

Sierra Club Contention 24 states:

Because of the high heat output of fuel within MPC-37 canisters, there is a long decay time before shipments to the Holtec [consolidated interim storage] facility can occur. The loading of the MPC-37 is quite complicated. It is unclear when reactors will be allowed to ship the MPC-37 to the Holtec facility. There is a serious risk of radioactive contamination if the radioactive waste is shipped too soon. Information that would inform the public and analysts has been withheld as being proprietary information. Neither the Holtec [Environmental Report] or SAR contain sufficient information to assess the risk of shipping the MPC-37 canisters.⁴²³

Sierra Club claims that "Holtec has not provided sufficient information in the [Environmental Report] or SAR to make an accurate assessment of the safety of

422. *Id.* § 72.46(e).

423. Sierra Club Pet. at 75-76.

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the [MPC-37 canisters for high burnup fuel].”⁴²⁴ Sierra Club also contends that it was not permitted to access information about the MPC-37 canister or the HI-TRAC CS cask because Holtec withheld the information as proprietary.⁴²⁵

As emphasized throughout this Memorandum and Order, Holtec has applied for a license to construct and operate a Holtec HI-STORE UMAX spent fuel storage installation – not a license for it to transport canisters or casks. Nor is Holtec applying for permission to use or certify Holtec canisters or casks for transport, as those proposed for use at the HI-STORE facility have already been reviewed by the NRC and have been issued certificates of compliance. Thus, a contention challenging any aspect of an NRC-approved canister or cask is outside the scope of this proceeding under 10 C.F.R. § 2.309(f) (1)(iii), and would be an impermissible attack on the Commission’s regulations absent a waiver under section 2.335.

As to Sierra Club’s claim that proprietary information was withheld that prejudiced petitioners, the claim is not an admissible contention under any standard. We again observe that the *Federal Register* notice announcing the opportunity to petition for a hearing in this proceeding set forth a procedure for petitioners to obtain proprietary

424. *Id.* at 76.

425. *Id.* at 76, 80.

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information.⁴²⁶ The Secretary of the Commission also granted an extension of time for petitioners to do so,⁴²⁷ but Sierra Club still did not avail itself of the procedure.

Sierra Club Contention 24 is not admitted.

25. Sierra Club Contention 25

Sierra Club's Contention 25 states:

Sierra Club adopts all contentions presented by Don't Waste Michigan, Citizens Against Chemical Contamination, Public Citizen, San Luis Obispo Mothers for Peace, Nuclear Energy Information Service, Citizens' Environmental Coalition, and Environmentalists, Inc. in their Petition to Intervene in this proceeding.⁴²⁸

To adopt a contention, a participant must (1) have demonstrated standing in their own right; and (2) have proffered an admissible contention itself.⁴²⁹ Because Sierra Club has not proffered an admissible contention itself, it cannot adopt any of Joint Petitioners' contentions.

426. *See* Notice of Opportunity to Request a Hearing, 83 Fed. Reg. at 32,919.

427. *See* Order of the Secretary (Aug. 20, 2018) (extending petitioners' requests to access SUNSI to August 30, 2018).

428. Sierra Club Pet. at 82.

429. *See Consolidated Edison Co. of New York* (Indian Point, Units 1 and 2), CLI-01-19, 54 NRC 109, 132-33 (2001).

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Sierra Club Contention 25 is not admitted.

26. Sierra Club Contention 26

Sierra Club Contention 26 states:

Section 186 of the Atomic Energy Act (AEA) (42 U.S.C. § 2236) provides that a license issued by the NRC may be revoked for any material false statement in the license application. Holtec has made a material false statement in its license application in this case by stating repeatedly that title to the waste to be stored at the [consolidated interim storage] facility would be held by DOE and/or the nuclear plant owners. This false statement was repeated in Holtec's Answers to Sierra Club's Contention 1 and [Joint Petitioners'] Contention 2.

The statement that nuclear plant owners might retain title to the waste is shown to be false by a January 2, 2019, e-mail message from Holtec to the public titled "Reprising 2018[.]" "Reprising 2018" states, "While we endeavor to create a national monitored retrievable storage location for aggregating used nuclear fuel at reactor sites across the U.S. into one (HI-STORE CISF) to maximize safety and security, its deployment will ultimately depend on the DOE and the U.S. Congress."

Thus, if a false statement such as Holtec has made in its filing in this case is grounds for

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revoking a license, it is grounds for not issuing the license in the first instance.⁴³⁰

On January 17, 2019, Sierra Club filed a motion to submit this new contention.⁴³¹ Because Sierra Club Contention 26 was submitted after the deadline for filing petitions,⁴³² we must first consider whether Sierra Club's motion to file the contention satisfies the three-prong test in 10 C.F.R. § 2.309(c)(1)(i)-(iii). Although Holtec argues to the contrary,⁴³³ the contention clearly satisfies two of them. It is undisputed that the e-mail on which the contention relies was not publicly available until January 2, 2019.⁴³⁴ Likewise there is no dispute that Sierra Club timely submitted Contention 26 on January 17, 2019 – just 15 days later.⁴³⁵

430. Sierra Club's Motion to File a New Late-Filed Contention (Jan. 17, 2019) [hereinafter Sierra Club's Late-Filed Contention 26 Motion]; Sierra Club Contention 26 (Jan. 17, 2019) [hereinafter Sierra Club Contention 26].

431. Sierra Club's Late-Filed Contention 26 Motion; *see* Sierra Club Contention 26.

432. *See* Notice of Opportunity to Request a Hearing, 83 Fed. Reg. at 32,919 (establishing September 14, 2018 as the deadline for hearing requests and petitions to intervene).

433. *See* Holtec Opposition to Late-Filed Sierra Club Contention 26 and [Joint Petitioners] Contention 14 (Feb. 19, 2019) at 2-6 [hereinafter Holtec Opp. to Late-Filed Contentions].

434. *See* Sierra Club's Motion to File a New Late-Filed Contention (Jan. 17, 2019), attach. Ex. 11, *Holtec Highlights*, Holtec Reprising 2018 (Jan. 2, 2019) [hereinafter Reprising 2018 E-mail].

435. *See Shaw AREVA MOX Servs.*, LBP-08-11, 67 NRC at 493 (30 days deemed timely).

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Less clear is whether Contention 26 relies on information that is “materially different from information previously available.”⁴³⁶ Both Holtec and the NRC Staff argue it is not.⁴³⁷ Holtec goes one step further and asks us to refuse even to consider the admissibility of Sierra Club Contention 26 because, Holtec argues, “Petitioners['] gross mischaracterizations of the statement in the Holtec article belie any finding of good cause under the late-filing requirements in 10 C.F.R. § 2.309(c).”⁴³⁸

Both Holtec and the NRC Staff, in our view, wrongly conflate the ““materially different” requirement of 10 C.F.R. § 2.309(c)(1)(ii) (necessary to file a contention after the initial deadline) with the “material to the findings the NRC must make” requirement of 10 C.F.R. § 2.309(f)(1)(iv) (necessary to admit a contention). As frequently stated, the NRC’s pleading requirements differ markedly from those in most courts because “notice pleadings” are not permitted.⁴³⁹ Rather, the scope of a contention is limited to issues of law and fact pled with particularity,⁴⁴⁰ unless

436. 10 C.F.R. § 2.309(c)(1)(ii).

437. Holtec Opp. to Late-Filed Contentions at 4-6; NRC Staff’s Consolidated Response to [Joint Petitioners], and the Sierra Club’s Motions to File New Contentions (Feb. 19, 2019) at 7-8 [hereinafter NRC Staff Response to Late-Filed Contentions].

438. Holtec Opp. to Late-Filed Contentions at 4.

439. *North Atlantic Energy Service Corp.* (Seabrook Station, Unit 1), CLI-99-6, 49 NRC 201, 219 (1999).

440. *Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc.* (Pilgrim Nuclear Power Station), CLI-10-15, 71 NRC 479, 482 (2010).

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the contention is properly amended in accordance with the NRC's rules.

A corollary to the NRC's strict pleading requirements, however, is that the Agency may place petitioners in a quandary: What new information requires amending a contention or pleading a new one, on the one hand, and what merely constitutes new evidence that may be introduced in support of an existing contention? A petitioner who guesses wrong may find its evidence or its line of argument excluded from an evidentiary hearing.

Accordingly, in deciding whether to permit a contention to be filed after the initial deadline, we interpret "materially different" new information from the standpoint of a reasonable petitioner. Holtec's statement in "Reprising 2018" concerning the role of DOE and the Congress in deployment of the proposed facility meets this standard because it appears to contradict information in the application. We do not demand that a petitioner establish the admissibility (much less the merits) of a contention before allowing it to be filed. Sierra Club's motion to file Contention 26 is granted for cause.

That said, we agree with Holtec and the NRC Staff that Sierra Club Contention 26 is not admissible.⁴⁴¹

Holtec's "Reprising 2018" e-mail message stated that deployment of the planned facility "will ultimately depend

441. See Holtec Opp. to Late-Filed Contentions at 6-13; NRC Staff Response to Late-Filed Contentions at 8-11.

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on the DOE and the U.S. Congress.”⁴⁴² Contention 26, therefore, claims Holtec made a material false statement in its license application when it said title to the spent fuel stored in the facility would be held either by DOE or by the nuclear plant owners.⁴⁴³ Holtec’s statement in “Reprising 2018,” Sierra Club contends, is an admission that Holtec really has no intention of contracting with nuclear plant owners. Rather, Sierra Club asserts, Holtec intends to go forward with the project only if it can contract with DOE (which, both Holtec and Sierra Club agree, with limited exceptions would currently be unlawful).⁴⁴⁴

Consequently, Contention 26 asserts, Holtec’s license application should be denied. Because section 186 of the AEA⁴⁴⁵ provides that an NRC license may be revoked for a material false statement in the license application, Sierra Club argues, it likewise should be grounds for not issuing a license in the first place.

Assuming section 186 of the AEA applies,⁴⁴⁶ however, Contention 26 does not set out a possible violation.

442. Reprising 2018 E-mail at 1.

443. *See* Sierra Club Contention 26 at unnumbered p. 1.

444. *See supra* discussion at Sierra Club Contention 1.

445. 42 U.S.C. § 2236.

446. Holtec contends that, prior to the issuance of a license, only section 182 of the AEA (42 U.S.C. § 2232) should apply, rather than section 186. *See* Holtec Opp. to Late-Filed Contentions at 12-13. The NRC Staff’s response does not address the issue. For purposes of determining whether Contention 26 is admissible, we assume *arguendo* that Sierra Club properly invokes section 186.

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Contrary to Sierra Club's arguments, a violation of section 186 requires a willful misrepresentation.⁴⁴⁷ Nothing in "Reprising 2018" demonstrates a misrepresentation in Holtec's license application, willful or otherwise.

On the contrary, Holtec's revised application unambiguously states that construction will be undertaken only after it has established "a definitive agreement with the prospective user/payer for storing the used fuel (USDOE and/or a nuclear plant owner)."⁴⁴⁸ Sierra Club claims, and Holtec agrees, that with certain limited exceptions DOE may not lawfully take title to spent nuclear fuel under current law.⁴⁴⁹ Therefore, Holtec's application describes two alternative types of customers: DOE and the nuclear plant owners themselves.

Holtec readily acknowledges that it hopes Congress will change the law, and allow it in most instances to contract

447. Before 1987, the Commission used the standard set forth in the pre-1987 cases on which the Sierra Club relies. *See* Sierra Club Contention 26 at unnumbered pp. 7-8. But, in a 1987 rulemaking, the Commission reversed its prior policy. Whereas previously a material false statement under section 186 could be "unintended and inadvertent," the Commission determined in 1987 to limit the term to "egregious situations" involving an element of intent. Completeness and Accuracy of Information, 52 Fed. Reg. 49,362, 49,363-65 (Dec. 31, 1987).

448. SAR at 1-6. (As discussed *supra*, Holtec has corrected an erroneous inconsistency that initially appeared in Revision 1 of its Environmental Report).

449. *See supra* Section IV.B.1.

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directly with DOE to store spent fuel.⁴⁵⁰ Additionally, as Holtec points out, the eventual development of a permanent national nuclear waste repository, as contemplated by the NWPA, might eliminate the need for some or all of the planned stages of Holtec's proposed interim storage facility.⁴⁵¹ Nothing in "Reprising 2018" is inconsistent with this state of affairs.

Meanwhile, Holtec represents that it is committed to going forward with the project by contracting directly with nuclear plant owners that currently hold title to their spent fuel.⁴⁵² We have no reason to assume that, having acknowledged on the record that (with limited exceptions) it would be unlawful to contract directly with DOE under the NWPA as currently in effect, Holtec will nonetheless try to do just that.⁴⁵³ Nor may we assume that DOE would be complicit in a violation of the NWPA.⁴⁵⁴

Whether Holtec will find the alternative of contracting with the nuclear plant owners to be commercially viable

450. Tr. at 250.

451. Tr. at 246.

452. Tr. at 248.

453. See, e.g., *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-01-9, 53 NRC 232, 235 (2001) ("Further, in the absence of evidence to the contrary, the NRC does not presume that a licensee will violate agency regulations wherever the opportunity arises.").

454. See, e.g., *Chemical Foundation*, 272 U.S. at 14-15; *Armstrong*, 517 U.S. at 464.

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is not an issue before the Board, because the business decision of whether to use a license has no bearing on a licensee's ability to safely conduct the activities the license authorizes. As the Commission instructs us, "the NRC is not in the business of regulating the market strategies of licensees or determining whether market conditions warrant commencing operations."⁴⁵⁵

Sierra Club Contention 26 is not admitted.

27. Sierra Club Contention 27

Sierra Club Contention 27 states:

During the hearing before the ASLB in this case that occurred on January 23 and 24, 2019, Holtec relied on its purported Aging Management Program, SAR Chapter 18, to support its claim that there is no issue with high burnup fuel, as set forth in Sierra Club Contentions 14 and 20-23. Holtec had not replied upon, or even mentioned, the Aging Management Program in its Answer to Contentions 14 and 20-23, which raise issues regarding high burnup fuel. This is new information that was not available to Sierra Club until Holtec relied upon the Aging Management Program at the ASLB hearing.

Holtec's Aging Management Program, SAR Chapter 18, only mentions high burnup fuel

455. *Nat'l Enrichment Facility*, CLI-05-28, 62 NRC at 726 (internal quotation marks omitted).

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once, in Section 18.3. The Aging Management Program does not explain how the impact to the containers from high burnup fuel will be addressed. The reference simply refers to Appendix D of NUREG-1927, which provides a process for experimental demonstration for time periods beyond a 20-year licensing period.

The ER does not mention the Aging Management Program at all.

Since the Holtec [consolidated interim storage] facility is expected to be in operation well beyond the 40-year licensing period, the Aging Management Program in the SAR, if it proposes to comply with Appendix D, must set out in detail how it will do so.⁴⁵⁶

Sierra Club relies on three documents to support its point that an “aging management program must be based on more tha[n] hope and a promise.”⁴⁵⁷ First is DOE guidance entitled “Managing Aging Effects on Dry Cask Storage Systems for Extended Long-Term Storage and Transportation of Used Fuel-Revision 2,” which refers to four types of aging management programs and ten

456. Sierra Club’s Additional Contentions in Support of Petition to Intervene and Request for Adjudicatory Hearing (Feb. 25, 2019) at 1 [hereinafter *Sierra Club Additional Contentions*]; *see also* Sierra Club’s Motion to File New Late-Filed Contentions 27, 28, and 29.

457. Sierra Club Additional Contentions at 4.

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elements that should be included in the programs.⁴⁵⁸ Second is a portion of NRC guidance document, NUREG-1748, which describes what mitigation measures an applicant should describe in an environmental report.⁴⁵⁹ Third is a report by Robert Alvarez that describes the alleged difficulty of monitoring decay heat from high burnup fuel.⁴⁶⁰ Sierra Club also disputes Holtec's assertion at oral argument that its aging management program is not voluntary, since Holtec "apparently gets to fashion its own program" and "there is no indication that there will be any NRC oversight of Holtec's execution of the program."⁴⁶¹

Because this contention was submitted after the original deadline, we first determine whether the contention satisfies 10 C.F.R. § 2.309(c). As explained *supra*, the Board will consider a new or amended contention filed after the deadline only if the petitioner demonstrates good cause under the three-pronged test of 10 C.F.R. § 2.309(c)(1). We agree with the NRC Staff and Holtec that Sierra Club's Contention 27 fails to meet the first prong,⁴⁶² and conclude that Sierra Club could have

458. *Id.*

459. *Id.* at 7.

460. *Id.*; see also *id.*, attach., Expert Report and *Curriculum Vitae* of Robert Alvarez (Feb. 25, 2019). As noted *infra*, Mr. Alvarez purports to have significant experience in the areas of nuclear materials and policy development.

461. Sierra Club Additional Contentions at 6.

462. See NRC Staff Response to Sierra Club's Motion to Admit Contentions 27, 28, and 29 (Mar. 22, 2019) at 6-9 [hereinafter NRC

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made this challenge to the aging management program in its initial petition. Sierra Club does not assert that the information about Holtec’s aging management program is new or materially different than the information in Holtec’s application, only that it has been used in a new way that Sierra Club did not anticipate. The DOE and NRC guidance documents upon which Sierra Club relies as the basis for this contention were available at the time that Sierra Club filed its initial petition. We agree with the NRC Staff’s comment that this contention is “solely related to the adequacy of the [aging management program] as it already existed in the application.”⁴⁶³ As explained *supra*, previously available information that is newly interpreted by the petitioner does not constitute good cause to file a new contention.⁴⁶⁴

Sierra Club Contention 27 is not admitted.

Staff Answer to Sierra Club New Contentions]; Holtec Opposition to Late-Filed Sierra Club Contentions 27, 28, and 29 (Mar. 21, 2019) at 5-11 [hereinafter Holtec Opp. to Sierra Club New Contentions].

463. NRC Staff Response to Sierra Club New Contentions at 8.

464. *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-90-5, 31 NRC 73, 79 (1990) (finding no “good cause” exists for late-filed safety concerns when petitioner “had yet to put the pieces of [the] safety puzzle together” despite previous availability of the information).

*Appendix E***28. Sierra Club Contention 28**

Sierra Club Contention 28 states:

During the hearing before the ASLB in this case that occurred on January 23 and 24, 2019, Holtec relied on its purported Aging Management Program, SAR Chapter 18, to support its claim that there is no issue with impacts to or from the groundwater, as set forth in Sierra Club Contentions 15-19. Holtec had not relied upon, or even mentioned, the Aging Management Program in its Answer to Contentions 15-19, which raise issues regarding the presence and location of and impacts from groundwater. This is new information that was not available to Sierra Club until Holtec relied upon the Aging Management Program at the ASLB hearing.

Holtec's Aging Management Program, SAR Chapter 18, only mentions groundwater testing or monitoring in connection with concrete structures, in Section 18.8. The Aging Management Program does not explain how the impact to the containers from groundwater or impacts to the groundwater from leaking containers will be addressed. The reference simply refers to Appendix D of NUREG-1927, which provides a process for experimental demonstration for time periods beyond a 20-year licensing period.

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The ER does not mention the aging management program at all.

Since the Holtec [consolidated interim storage] facility is expected to be in operation well beyond the 40-year licensing period, the Aging Management Program in the SAR, if it proposes to comply with accepted guidance, must set out in detail how it will do so.⁴⁶⁵

This proposed contention is the same as Contention 27, except “high burnup fuel” has been substituted with the term “groundwater.” Sierra Club relies on the same documents as the basis for Contentions 27 and 28. Sierra Club also uses the same language to dispute Holtec’s assertion at the oral argument that the aging management program is voluntary.

As with Contention 27, because this contention was submitted after the deadline, we first determine whether it meets the good cause standard of 10 C.F.R. § 2.309(c). We agree with the NRC Staff and Holtec that Sierra Club’s Contention 28 fails to meet the first prong of section 2.309(c)(1),⁴⁶⁶ and conclude that Sierra Club could have made this challenge in its initial petition. Again, Sierra Club does not assert that the information quoted from the oral argument or the documents underlying

465. Sierra Club Additional Contentions at 8.

466. NRC Staff Answer to Sierra Club New Contentions at 7; Holtec Opp. to Sierra Club New Contentions at 17-20.

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this contention are new or materially different than the information in Holtec's application, only that Sierra Club's interpretation is new. As explained *supra*, previously available information that is newly interpreted by the petitioner does not constitute good cause to file a new contention.⁴⁶⁷

Sierra Club Contention 28 is not admitted.

29. Sierra Club Contention 29

Sierra Club Contention 29 states:

The [Environmental Report], Rev. 3, has now added "utilities," in addition to DOE, as possible entities that might take title to the radioactive waste in the [consolidated interim storage] facility. The [Environmental Report] provides no hint, however, as to whether a private utility that owns a nuclear reactor would agree to retain title to the waste. In fact, the costs to a private utility would be so great that the utility would not want to retain title to the waste. And Holtec is still presenting DOE as a possible titleholder in the [Environmental Report], even though Holtec's counsel admitted at the ASLB hearing on January 24, 2019, that DOE cannot legally take title to the waste. Thus, Holtec has failed to show reasonable assurance

467. *Turkey Point*, LBP-90-5, 31 NRC at 79.

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of funding for the project, as required by 10 C.F.R. § 72.22(e).⁴⁶⁸

Sierra Club relies on a report by Robert Alvarez that “describes the financial implications to reactor owners” as support for the assertion that it “is highly unlikely – in fact, probably a fanciful dream – that private reactor owners would agree to incur that kind of expense”⁴⁶⁹ to retain title to the nuclear waste. Sierra Club also cites the *Louisiana Energy Services* and *Private Fuel Storage* Commission decisions for a discussion of “what constitutes reasonable assurance of adequate funding.”⁴⁷⁰ In its motion to file Contention 29, Sierra Club claims that the information forming the basis for this challenge is materially different than information previously available because “Sierra Club had no reason to believe the option of the reactor owners’ involvement was a serious proposal.”⁴⁷¹

As with Contentions 27 and 28, because this contention was submitted after the initial deadline, we first determine

468. Sierra Club Additional Contentions at 14.

469. *Id.* at 15. Mr. Alvarez has significant experience in nuclear materials and policy development.

470. *Id.* at 17-18 (citing *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-97-15, 46 NRC 294 (1997) and *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-00-13, 52 NRC 23 (2000)).

471. Sierra Club’s Motion to File New Late-Filed Contentions 27, 28, and 29 at unnumbered p. 3.

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if it meets the good cause standard of 10 C.F.R. § 2.309(c). We agree with the NRC Staff⁴⁷² and Holtec⁴⁷³ that Sierra Club's Contention 29 fails to meet that standard, because Sierra Club could have made this challenge in its original petition. Sierra Club admits that Holtec's application always contained a private funding option, but it had not taken that option seriously.⁴⁷⁴ We agree with the NRC Staff that "[w]hether or not Sierra Club believed the private funding option was 'a serious proposal', it was unquestionably . . . previously available."⁴⁷⁵

Sierra Club Contention 29 is not admitted.

472. NRC Staff Answer to Sierra Club New Contentions at 11-13.

473. Holtec Opp. to Sierra Club New Contentions at 22-26.

474. *See* Sierra Club's Motion to File New Late-Filed Contentions 27, 28, and 29 at unnumbered pp. 1-2 ("As Sierra Club had said previously, Holtec's documentation appeared to present the option of the reactor owners' involvement as a fig leaf to hide the real intent for DOE to take title to the waste.").

475. NRC Staff Answer to Sierra Club New Contentions at 11 (quoting Sierra Club's Motion to File New Late-Filed Contentions 27, 28, and 29 at unnumbered p. 3).

*Appendix E***C. Joint Petitioners****1. Joint Petitioners Contention 1⁴⁷⁶**

Joint Petitioners Contention 1 states:

The redaction of some 144 pages from Appendix C of the Holtec Environmental Report violates [NEPA] and National Historic Preservation Act.⁴⁷⁷

Joint Petitioners allege that “Holtec has violated § 106 of the [National Historic Preservation Act (NHPA)] by redacting extensive details about two historic or cultural properties referenced elsewhere in the Environmental

476. Joint Petitioners also include an “objection” in their initial petition and move “for the dismissal and termination of this licensing proceeding.” Joint Pet’rs Pet. at 24-25. They allege that “there is no federal authorization for the Holtec CISF” because “neither Part 72 nor the NWPA authorize” it, and the proposed facility does not fall under the NRC’s definition of an independent spent fuel storage installation under 10 C.F.R. § 72.3. *Id.*

The Board overrules the objection. As explained in the Commission Secretary’s Order denying Beyond Nuclear and Fasken’s substantially similar motions to dismiss, the NRC’s regulations do not provide for the filing of threshold motions or objections. *See Order Denying Motions to Dismiss*. Even if Joint Petitioners had made this argument in the form of a contention, we would not admit it for the same reasons we do not admit Beyond Nuclear’s contention and Sierra Club Contention 1.

477. Joint Pet’rs Pet. at 26.

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Report.”⁴⁷⁸ Joint Petitioners point to the Environmental Report’s Appendix C, which describes the two historic or cultural properties in question but which has been wholly redacted. Joint Petitioners therefore allege that “[t]he redaction of 144 pages of Appendix C as being security-related has precluded Holtec’s precise identification of the resources, and further has made public involvement in mitigation advocacy impossible.”⁴⁷⁹

As the NRC Staff stated in its reply, it was the Staff – not Holtec – who redacted Appendix C in accordance with the NHPA.⁴⁸⁰ Specifically, the NRC Staff made a preliminary conclusion that public disclosure of this information might risk harm to a potential historic resource.⁴⁸¹ Upon completion of the Staff’s consultation with the Keeper of the National Register of Historic Places and a final determination of eligibility, the Staff will make available to the public any information that would not harm any potential historic properties.⁴⁸²

Moreover, if Joint Petitioners wanted access to the sensitive information in Appendix C, they had two opportunities to request it: once when the opportunity to request a hearing was published in the *Federal*

478. *Id.*

479. *Id.* at 27.

480. NRC Staff Consol. Answer at 29 (citing 54 U.S.C. § 307103(a)).

481. *Id.* at 30.

482. *Id.*

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Register,⁴⁸³ and again when the Commission offered Joint Petitioners another 10-day opportunity to request access to such information.⁴⁸⁴ Joint Petitioners did not take either opportunity to request access. In any event, because Joint Petitioners Contention 1 does not raise a dispute with Holtec's application, it is inadmissible.⁴⁸⁵

Joint Petitioners Contention 1 is not admitted.

2. Joint Petitioners Contention 2

Joint Petitioners Contention 2 has evolved. As initially proffered, it stated:

Holtec cannot provide reasonable assurances that it can obtain the necessary funds to cover the costs of construction, operation, maintenance, and decommissioning of the CISF.⁴⁸⁶

Although not articulated in the contention itself, Joint Petitioners' original basis for Contention 2 explained that their challenge to Holtec's financial plan arose from their conviction that Holtec would not construct its proposed

483. Notice of Opportunity to Request a Hearing, 83 Fed. Reg. at 32,919, 32,922-24.

484. *See* Order Denying Motions to Dismiss.

485. 10 C.F.R. § 2.309(f)(1)(vi).

486. Joint Pet'rs Pet. at 31.

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storage facility “without financial guarantees from the U.S. Department of Energy.”⁴⁸⁷ However, Joint Petitioners contended, if Holtec contracted with DOE to store the nuclear power companies’ spent fuel, it would violate the NWPAs.⁴⁸⁸ Thus, insofar as it relied on the assertion that Holtec’s contracting with DOE would violate the NWPAs, Joint Petitioners Contention 2 was substantially similar to Beyond Nuclear’s sole contention and to Sierra Club Contention 1, discussed *supra*.

Indeed, after Holtec’s counsel conceded that, with limited exceptions, it would violate the NWPAs as currently in effect for DOE to take title to nuclear plant owners’ spent fuel,⁴⁸⁹ Joint Petitioners did just what Beyond Nuclear and the Sierra Club did. On the same day Beyond Nuclear moved to amend its contention and the Sierra Club moved to amend Sierra Club Contention 1, Joint Petitioners moved to amend the basis for their Contention 2 to add exactly the same statement:

Language in Rev. 3 of Holtec’s Environmental Report, which presents federal ownership as a possible alternative to private ownership of spent fuel, does not render Holtec’s financial assurance plan lawful. As long as Holtec includes the federal government as a potential guarantor or financier of the project, which in

487. *Id.* at 32.

488. *Id.* at 32-33.

489. Tr. at 250-52.

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turn requires federal ownership of spent fuel, the application violates the NWPA.⁴⁹⁰

Insofar as Joint Petitioners Contention 2 now asserts that reference to the mere possibility of contracting with DOE must be expunged from Holtec's application, it remains substantially similar to both Beyond Nuclear's amended contention and Sierra Club's amended Contention 1. We therefore likewise grant Joint Petitioners' February 6, 2019 motion to amend their Contention 2, but rule that portion is not admissible for the same reasons that Beyond Nuclear's amended contention and Sierra Club's amended Contention 1 are not admissible.

But Joint Petitioners did not stop there. While leaving the text of their original Contention 2 unchanged, on February 25, 2019 Joint Petitioners moved to further amend the basis for the contention.⁴⁹¹ More than five months after timely filing their original petition, Joint Petitioners ask to replace their five-page basis statement for Contention 2 with a fifteen-page statement accompanied by a fourteen-page expert report.

Because Joint Petitioners seek to amend their contention after the deadline for filing petitions, we must

490. Motion of [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.

491. Motion of [Joint Petitioners] to Amend Their Contention 2 Regarding Holtec's Proposed Means of Financing the Proposed [CISF] (Feb. 25, 2019) [hereinafter Joint Pet'rs Feb. 25 Motion to Amend].

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first consider whether its second motion satisfies the three-prong test in 10 C.F.R. § 2.309(c)(1)(i)-(iii). It does not.

Although Holtec and the NRC Staff argue to the contrary,⁴⁹² we agree that the new information on which Joint Petitioners *purport* to base their filing is materially different from information previously available, and that Joint Petitioners timely filed their motion within 30 days of when that information became available. However, Joint Petitioners' second motion to amend seeks to add material that is not in fact "based" upon that new information, as required by 10 C.F.R. § 2.309(c). Rather, their motion seeks to add arguments and supporting opinions that could have been submitted with their original petition.

Specifically, Joint Petitioners allege the new information triggering their second motion to amend the basis statement for Contention 2 is Holtec counsel's concession, during oral argument on January 24, 2019, that in nearly all instances DOE may not lawfully contract with Holtec to store nuclear power companies' spent fuel under the NWPA as currently in effect.⁴⁹³ Joint Petitioners correctly assert that this was the first time Holtec unequivocally conceded that it cannot presently contract with DOE to store most spent nuclear fuel.⁴⁹⁴

492. Holtec Opposition to [Joint Petitioners'] Motion to Amend Contention 2 (Mar. 22, 2019) at 4-12; NRC Staff Response to [Joint Petitioners'] Motion to Amend Contention 2 (Mar. 22, 2019) at 5-7.

493. Joint Pet'rs Feb. 25 Motion to Amend at 8.

494. *Id.*

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Joint Petitioners' response to this development, however, was not to address Holtec's concession, but rather to seize the chance to try to further amend their basis statement for Contention 2 so as to visit or revisit a wide range of issues that were, or should have been, addressed in their original petition.

The centerpiece of Joint Petitioners' second motion to amend their basis statement for Contention 2 is the accompanying sworn declaration of Robert Alvarez, dated February 23, 2019, which is summarized and repeated in part in the basis statement itself.⁴⁹⁵ Mr. Alvarez has significant experience in the areas of nuclear materials and policy development.⁴⁹⁶

Mr. Alvarez's declaration asserts that he reviewed Holtec's license application "in light of Holtec's admission that the only lawful way to finance the project was from the licensee owners of the waste using [Holtec's facility] for interim storage."⁴⁹⁷ What follows in his declaration, however, is a statement that fails to analyze any specific provision in Holtec's application, and that contains 34 footnoted references all dating (apart from Holtec counsel's concession) from earlier than 2018. There is

495. Joint Pet'rs Feb. 25 Motion to Amend, attach., Expert Report and Curriculum Vitae of Robert Alvarez (Feb. 23, 2019) [hereinafter Joint Pet'rs Alvarez Report].

496. *Id.*, Curriculum Vitae at 1, 4.

497. *Id.*, Alvarez Decl. at 1.

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nothing new in Mr. Alvarez's declaration, and virtually nothing that purports to relate directly to Holtec counsel's January 24, 2019 concession.

This is confirmed by Mr. Alvarez's own summary of his declaration, in which he sets forth six conclusions.

First, Mr. Alvarez states: "Holtec's license application relies heavily on illegal, nonexistent conditions and contract terms. Large amounts of spent fuel from commercial nuclear power fleet require very long term management and storage."⁴⁹⁸

This statement appears to be a throwback to Joint Petitioners' original Contention 2, which assumed that Holtec would rely on contracts with DOE that both Holtec and Joint Petitioners now agree would currently be unlawful. No one disputes that spent nuclear fuel requires long term management and storage. Mr. Alvarez's first conclusion presents no new information.

Second, Mr. Alvarez states:

By assuming DOE would take title, the cost basis for the Holtec [facility] relies on DOE bearing costs. Since this option is not legal, the nuclear licensees must pay all costs. Management costs are more for the licensees when they must pay all costs of onsite storage,

498. *Id.* at 14.

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transport to and from a CISF and all [facility] operating and closure costs.⁴⁹⁹

Insofar as this statement challenges Holtec's financial plan as being unlawfully premised on contracts with DOE, it ignores Holtec's October 9, 2018 Answer to Joint Petitioners' original Contention 2, in which Holtec clarified that it "is not relying on DOE contracts to demonstrate its financial qualifications."⁵⁰⁰ Insofar as this statement is intended to suggest that Holtec's pricing structure will discourage power companies from contracting for spent fuel storage, it simply repeats Joint Petitioners' claim that private financing is "improbable," as set forth in Joint Petitioners' October 16, 2018 reply in support of their original Contention 2.⁵⁰¹ Either way, Mr. Alvarez's second conclusion presents no new information.

Third, Mr. Alvarez states: "These costs of continued licensee ownership at a [consolidated interim storage facility] have not been fully explored or revealed by Holtec and appear, based on existing information, to be significantly higher than management at the reactor sites."⁵⁰²

Insofar as this statement suggests that private financing is improbable because nuclear power plant

499. *Id.*

500. Holtec Answer to Joint Pet'rs at 31.

501. Joint Pet'rs Reply at 18.

502. Joint Pet'rs Alvarez Report, Alvarez Decl. at 14.

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owners might conclude they are financially better off by retaining their spent fuel, rather than by paying Holtec to store the fuel, it again repeats the same argument that Joint Petitioners raised more than four months earlier, in their reply in support of their original Contention 2.⁵⁰³ Mr. Alvarez's third conclusion presents no new information.

Fourth, Mr. Alvarez states:

High burnup fuel, an increasingly large portion of the wasted inventory, needs longer cooling in wet storage and its cladding could have less integrity than that of lower burnup fuel, thus the long term impacts of repeated transport must be considered before permitting routine massive shipments to a temporary location.⁵⁰⁴

The likelihood that high burnup fuel might present special concerns was the subject of several contentions that were proffered in Sierra Club's original petition⁵⁰⁵ – contentions in which Joint Petitioners sought to join.⁵⁰⁶ Mr. Alvarez's fourth conclusion presents no new information related to Holtec counsel's concession that Holtec may not lawfully contract with DOE to store most spent nuclear fuel under the NWPA, as currently in effect.

503. Joint Pet'rs Reply at 18.

504. Joint Pet'rs Alvarez Report, Alvarez Decl. at 14.

505. *See* Sierra Club Pet. at 67-75.

506. Joint Pet'rs Pet. at 88.

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Fifth, Mr. Alvarez states: “High burnup fuel could need more protective storage such as double containerization to be moved and these costs have not been included.”⁵⁰⁷

Again, as stated above, the considerations applicable to high burnup fuel have been previously addressed in this proceeding, and Joint Petitioners themselves have sought to join in contentions that address this issue. Mr. Alvarez’s fifth conclusion presents no new information, and does not appear related to Holtec counsel’s concession that Holtec may not lawfully contract with DOE to store most spent nuclear fuel under the NWPA, as currently in effect.

Sixth, Mr. Alvarez states: “Holtec does not include a dry transfer facility in its operations for at least the first century, but it will be needed well before that to repackage [spent nuclear fuel] for disposal and for the remediation of leaking, cracked or otherwise flawed and/or dangerous canisters.”⁵⁰⁸

Likewise, the absence of a dry transfer facility has always been apparent from Holtec’s license application. It was, in fact, addressed in Joint Petitioners Contentions 4 and 7, as submitted with their original petition on September 14, 2018.⁵⁰⁹ Mr. Alvarez’s sixth and final conclusion presents no new information, and does not appear connected to Holtec counsel’s concession that

507. Joint Pet’rs Alvarez Report, Alvarez Decl. at 14.

508. *Id.*

509. Joint Pet’rs Pet. at 46-49, 61-64.

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Holtec may not lawfully contract with DOE to store most spent fuel under the NWPA as currently in effect.

Because the new information on which Joint Petitioners purport to rely (Holtec counsel's concession) is not, in fact, "[t]he information upon which the filing is based," they fail to satisfy 10 C.F.R. § 2.309(c). We therefore deny Joint Petitioners' second motion to amend the basis statement for Joint Petitioners Contention 2.

Moreover, if we did allow Joint Petitioners to file their second amended basis for Contention 2, the contention still would not be admissible. As explained above, Mr. Alvarez's declaration is devoid of a single specific reference to Holtec's application and fails to raise a genuine dispute. Nor do the arguments advanced in Joint Petitioners' proffered amended basis itself warrant further proceedings.

For example, Joint Petitioners ignore the fact that Holtec's license application seeks approval of only the first of twenty potential phases. Joint Petitioners' claims about financial assurances for later phases or for storage beyond the licensed term are therefore outside the scope of this proceeding, and fail to satisfy 10 C.F.R. § 2.309(f)(1)(iii).

Nor do Joint Petitioners demonstrate how any information in Mr. Alvarez's declaration controverts Holtec's financial plan for the first phase or renders it deficient. General speculation about potential future costs, without specifying how they make incorrect the financial analysis for the only phase covered by the application,

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does not raise a genuine dispute with the application as required by 10 C.F.R. § 2.309(f)(1)(vi).

Insofar as Joint Petitioners contend that Holtec's application is deficient for failure to address liability coverage and the scope of Price-Anderson Act protection, they misapprehend the requirements of 10 C.F.R. § 72.22(e). That provision requires that an applicant either possesses, or demonstrates reasonable assurance of obtaining the necessary funds to cover (1) estimated construction costs; (2) estimated operating costs; and (3) estimated decommissioning costs.⁵¹⁰ It says nothing about liability coverage. Regardless of whether the Price-Anderson Act will cover Holtec's activities, contrary to 10 C.F.R. § 2.309(f)(1)(iv) Joint Petitioners have not demonstrated why this issue is material to the NRC's review of Holtec's application or relates to their concern with its financial qualifications.

Likewise, although Joint Petitioners challenge as inadequate both Holtec's environmental cost-benefit analysis and its analysis of alternatives, they do not discuss or address, much less controvert, these sections of Holtec's Environmental Report. Thus, they fail to demonstrate a genuine material dispute with Holtec's license application, as required by 10 C.F.R. § 2.309(f)(1)(vi).

Neither Mr. Alvarez's declaration nor Joint Petitioners' second amended basis for their Contention 2 therefore supports a contention that satisfies 10 C.F.R. § 2.309(f)(1).

⁵¹⁰ 10 C.F.R. § 72.22(e).

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Finally, insofar as Joint Petitioners Contention 2 continues to assert that Holtec intends to go forward with the project *only* if it is able to contract with DOE,⁵¹¹ it is likewise not admissible for failure to raise a genuine dispute with the application. Holtec readily admits that it would prefer if Congress would change the law and permit it to contract with DOE.⁵¹² But both Holtec's license application and the statements of counsel at oral argument assure us that Holtec intends to proceed by attempting to negotiate storage contracts with the nuclear power plant owners themselves, at least unless and until another option is available.⁵¹³

If Holtec is not successful, then the facility will not be built, as Holtec's license application makes clear it has no intention of beginning construction until it has sufficient contracts in hand.⁵¹⁴ No purpose would be served by convening an evidentiary hearing to further explore Holtec's intent, based either upon company documents that preceded its application or upon one sentence in a single more recent company publication that is arguably ambiguous.⁵¹⁵ None of these documents raises a genuine

511. Joint Pet'rs Pet. at 34.

512. Tr. at 250.

513. Tr. at 248.

514. Holtec Proposed License at 2.

515. *See* Joint Pet'rs Feb. 25 Motion to Amend at 3; Motion by [Joint Petitioners] for Leave to File a New Contention (Jan. 17, 2019); [Joint Petitioners] Contention 14 (Jan. 17, 2019).

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material dispute with Holtec's license application, as required by 10 C.F.R. § 2.309(f)(1)(vi).

Joint Petitioners Contention 2, as amended, is not admitted.

3. Joint Petitioners Contention 3

Joint Petitioners Contention 3 states:

The Environmental Report contains a gross underestimation of the volume of low-level radioactive waste ("LLRW") that will be generated by the use of concrete and other materials for bunkering of the [spent nuclear fuel] canisters, and by replacement of the canisters themselves during the operational life of the CISF. Besides providing a distorted view of the waste management obligations the project will create, the financial burdens arising from creation, oversight and disposition of millions of additional tons of LLRW causes a seriously inaccurate picture of the true costs of constructing, operating and decommissioning the Holtec [facility].⁵¹⁶

Taking issue with Holtec's estimate that it will only generate "small quantities of hazardous and non-hazardous waste . . . includ[ing] [LLRW],"⁵¹⁷ Joint Petitioners allege

516. Joint Pet'rs Pet. at 36-37.

517. *Id.* at 37 (citing ER at 3-108).

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that “Holtec omits to mention that millions of tons of concrete will be mixed and poured onsite,” which upon the facility’s decommissioning “will have been transformed into a large quantity of radioactively activated waste.”⁵¹⁸ For support, Joint Petitioners rely upon “common sense” that the storage facility’s concrete and subsoils will become activated, and upon the inferences that allegedly can be drawn from Holtec’s narrow reply rebutting the *volume* of LLRW generated, not the generation of LLRW itself.⁵¹⁹ Joint Petitioners also challenge Holtec’s reliance on the Continued Storage GEIS (and therefore section 51.23), as the Continued Storage GEIS “does not contemplate a storage facility that uses 8,000,000 tons of concrete” for housing spent fuel canisters⁵²⁰ nor does it “account for the large, and escalating cost item of repackaging spent fuel to be moved from reactor sites to a consolidated storage facility, and thence ultimately to a geological repository,” and thus Holtec may not rely upon it in its application.⁵²¹

Holtec and the NRC Staff argue that Joint Petitioners have not met their burden in proffering facts or expert opinion supporting their allegations.⁵²² The Board agrees. Joint Petitioners only speculate that all “8,000,000 tons” of concrete used at the facility will become LLRW,

518. *Id.*

519. *See* Tr. at 161-62.

520. Joint Pet’rs Pet. at 40, 41.

521. *Id.* at 41.

522. *See* NRC Staff Consol. Answer at 34; Holtec Answer to Joint Pet’rs at 36.

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despite conceding that the facility's concrete can be decontaminated by Holtec⁵²³ and notwithstanding that the design of the proposed facility includes a "liner that serves to protect [the concrete] from contamination from its resident canister."⁵²⁴ The Continued Storage GEIS concerning ISFSI decommissioning concludes:

Although the exact amount of LLW and nonradioactive waste depends on the level of contamination, the quantity of waste generated from the replacement of the canisters, storage casks, concrete storage pads, DTS, and canister transfer building is still expected to be comparable to the LLW generated during reactor decommissioning, which was previously determined to have a SMALL impact in the Generic Environmental Impact Statement for License Renewal of Nuclear Plants (NRC 2013a).⁵²⁵

As to Joint Petitioners' complaint regarding the Continued Storage GEIS, including the alleged omission of the topics of repackaging of spent fuel and disposal of the spent fuel casks after repackaging, Holtec's Environmental Report appropriately relies on the Continued Storage GEIS. We therefore agree with

523. *See* Tr. at 162.

524. Holtec Answer to Joint Pet'rs at 43 (citing Decommissioning Plan at 9).

525. Continued Storage GEIS at 5-48.

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Holtec that Joint Petitioners' complaint amounts to an impermissible attack on the NRC's regulations.⁵²⁶

Joint Petitioners Contention 3 is not admitted.

4. Joint Petitioners Contention 4

Joint Petitioners Contention 4 states:

Holtec has defined a site-specific spent nuclear storage facility that does not qualify for the exclusions from NEPA scrutiny conferred by the Waste Storage GEIS. Consequently, severe accident mitigation during transportation to and from the Holtec CISO and at the CISO, and SNF and GTCC storage and management operations at the CISO site, may not be treated as generic issues and excused from consideration within the EIS.⁵²⁷

On February 18, 2019, Joint Petitioners moved to amend Contention 4 based on allegedly new information revealed in Holtec's January 17, 2019 responses to the NRC Staff's requests for additional information (RAIs).⁵²⁸ The amended contention would add the following paragraph:

526. See 10 C.F.R. § 2.335.

527. Joint Pet'rs Pet. at 46.

528. Joint Pet'rs Motion to Amend Contentions 4 & 7, at 6-7.

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Holtec has created an issue of fact by claiming that its over-optimistic conclusion that there are no credible challenges to canister confinement integrity capable of causing radioactivity release is consistent with the GEIS.⁵²⁹

In their motion, Joint Petitioners rely on Dr. Gordon Thompson's declaration to try to show that Holtec's RAI 9-3 response about accident conditions is ““seriously inconsistent” with the GEIS.⁵³⁰ Joint Petitioners also claim that Holtec's “insistence that there is zero potential accident or attack scenario that would result in a release of hazardous radioactivity lacks credibility and undermines . . . Holtec's decisions to not have an on-site emergency response plan for radiological accidents and its determination not to have [dry transfer system (DTS)] capability.”⁵³¹

As explained *supra*, the Board will consider an amended contention filed after the original deadline only if petitioner demonstrates good cause under the three-

529. See Joint Petitioners' Amended Contentions 4 & 7 (Feb. 18, 2019) [hereinafter Joint Pet'rs Amended Contentions 4 & 7]. The NRC Staff and Holtec timely filed responses in opposition to the Joint Petitioners' motion. See NRC Staff's Response to [Joint Petitioners] Motion to Amend Contentions 4 and 7 (Mar. 14, 2019) [hereinafter NRC Staff's Response to Joint Pet'rs Motion to Amend Contentions 4 & 7]; Holtec Opposition to [Joint Petitioners'] Motion to Amend Contentions 4 and 7 (Mar. 15, 2019).

530. Joint Pet'rs Amended Contentions 4 & 7, at 6-7.

531. *Id.* at 7.

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pronged test of 10 C.F.R. § 2.309(c)(1). Here, we agree with the NRC Staff and Holtec that Joint Petitioners have failed to demonstrate good cause, because the information upon which they base their amended contention was previously available. The difference between Holtec’s original SAR section 9.2.2 and its answer in RAI 9-3 is three words. Holtec changed “there is no credible normal or accident situation” to “there is no credible normal, *off-normal*, or accident *conditions*.” This revision is consistent with the same conclusions made by Holtec in SAR 9.2.1. Joint Petitioners do not show how those three words in RAI 9-3 change Holtec’s answer in a way that provides new or materially different information. In fact, Dr. Thompson’s declaration acknowledges that Holtec’s RAI response is an “equivalent assertion” to one made in its Environmental Report in section 4.13.2.⁵³² Because Joint Petitioners have failed to meet the first prong under 10 C.F.R. § 2.309(c)(1), we deny their motion to amend Contention 4.

Accordingly, we analyze Joint Petitioners Contention 4 as originally filed. In their original filing, Joint Petitioners cite four bases for their contention: (1) the proposed facility is not legally authorized; (2) the proposed facility departs from assumptions in the GEIS; (3) Holtec agrees that its project is site-specific; and (4) the proposed facility is not covered by the GEIS exemption.⁵³³

We have previously rejected the first basis in addressing Beyond Nuclear’s contention and Sierra

532. Joint Pet’rs Amended Contentions 4 & 7, at 7.

533. Joint Pet’rs Pet. at 46-49.

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Club's Contention 1, *supra*. As to the remaining bases, we agree with Holtec⁵³⁴ and the NRC Staff⁵³⁵ that Joint Petitioners' challenges to the lack of dry transfer system capability at the proposed facility and to Holtec's "return to sender" policy do not demonstrate a genuine dispute with the application on a material issue of law or fact. The Continued Storage GEIS acknowledges that not all storage facilities will necessarily match the "assumed generic facility," and therefore when it comes to "size, operational characteristics, and location of the facility, the NRC will evaluate the site-specific impacts of the construction and operation of any proposed facility as part of that facility's licensing process."⁵³⁶ The site-specific evaluation would not "reanalyze the impacts of continued storage," because that is already covered by the GEIS and requires a waiver to challenge.⁵³⁷ Accordingly, Holtec's Environmental Report contains a site-specific impact analysis for the period of the proposed activity. Neither the Continued Storage GEIS nor NRC regulations require an analysis of a dry transfer system at this time; rather, because Holtec does not intend to build a dry transfer system during the initial license term, the analysis will not be required until Holtec pursues a dry transfer system as a separate action.⁵³⁸

534. See Holtec Answer to Joint Pet'rs at 44-46.

535. See NRC Staff Consol. Answer at 36-37.

536. Continued Storage GEIS at 5-2.

537. *Id.*

538. *Id.*

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Joint Petitioners Contention 4 is not admitted.

5. Joint Petitioners Contention 5

Joint Petitioners Contention 5 states:

Horizontal hydraulic fracturing (“fracking”) is certain to occur underneath the Holtec site. Holtec has acquired mineral rights to a depth of 5,000 feet to part of its site from Intrepid, a potash mining firm. However, within the boundaries of the Holtec site there are mineral leases held by at least half a dozen oil and gas drilling firms and Mosaic Potash, a mining firm. There is no indication in the Environmental Report of any control over present or potential potash mining or oil and gas drilling. And the very area where the concrete bunkers containing [spent nuclear fuel] casks will be located, fracking activity can be carried on below 5,000 feet. Typical oil and gas wells in the Permian Basin region in which Holtec is located are 8,000 or more feet deep. The mineral interests are inadequately disclosed, and the realistic prospects for mineral development immediately surrounding and underneath the Holtec site, and their implications for inducing or expediting geological problems and groundwater movement beneath the site, are inadequately disclosed in the ER.⁵³⁹

⁵³⁹. Joint Pet’rs Pet. at 49.

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Joint Petitioners Contention 5 concerns potential mining and fracking at and underneath the site. Joint Petitioners first claim that “fracking is certain to occur”⁵⁴⁰ at the Holtec site, and further claim that the Environmental Report reveals that Holtec does not in fact control any of the mineral rights at the proposed storage facility’s boundary except those belonging to Intrepid Potash – New Mexico, LLC (Intrepid).⁵⁴¹ They contend that there are twelve abandoned hydrocarbon wells, “many on that part of the site where the concrete bunkers are to be built,” and assert that, in light of the “long history of underground potash mining” at the site, the Environmental Report “does not faithfully report the true story of land ownership and mineral rights interests” at the site.⁵⁴² Second, Joint Petitioners allege that the Environmental Report “fails to connect the considerable history of oil and gas brine disposal at the Holtec site” which in turn causes a “possible relationship to poor quality and corrosive groundwater,” soil, and “wind-blown dust.”⁵⁴³ Joint Petitioners allege that these phenomena could thus corrode the “steel or alloy canisters nosed into concrete bunkers down to about 23 feet of depth, for a century or more,” as well as the concrete UMAX canister system itself.⁵⁴⁴ Third, Joint Petitioners assert that Holtec failed to comply with 10 C.F.R. § 72.103(f), alleging that

540. *Id.*

541. *Id.* at 50.

542. *Id.* at 51-52.

543. *Id.* at 52.

544. *Id.*

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Holtec did not investigate the “geological and seismic implications of mining and fracking . . . *inside* the site boundaries.”⁵⁴⁵ Finally, Joint Petitioners posit that the Environmental Report fails to satisfy 10 C.F.R. § 72.90 and 10 C.F.R. § 72.94, because it is missing analyses of “site characteristics that may directly affect the safety or environmental impact of the ISFSI” and “past and present man-made facilities and activities that might endanger the proposed ISFSI.”⁵⁴⁶

Regarding fracking and potash mining, Joint Petitioners’ proffered exhibit, an ELEA Mineral Conflict Analysis map from 2015, does not set forth a genuine dispute with the Holtec application on a material issue of fact. According to Holtec’s Environmental Report, its proposed facility would be built on grid 13 of coordinate 020S, 032E, the western half of grid 18 and the southwestern corner of grid 17.⁵⁴⁷ Comparing these coordinates to Joint Petitioners’ proffered 2015 Map, it is clear that (1) although COG Operating LLC appears to own mineral rights at grid 13, the proposed facility’s footprint does not show any active or abandoned gas or oil zones inside the footprint of the facility; and (2) only Intrepid’s rights exist at the site pursuant to its New Mexico potash mining lease.⁵⁴⁸ Moreover, the Environmental Report states that Holtec controls the mineral rights at the site down to 5,000 feet

545. *Id.* at 54.

546. *Id.* at 54-55.

547. ER at 3-5 to -6.

548. 2015 Map at 3-4.

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pursuant to an agreement with Intrepid, and Intrepid will not mine at the site.⁵⁴⁹ Additionally “any future oil drilling or fracking beneath the site would occur at greater than 5,000 feet depth,” which would ensure that no subsidence would occur at the site.⁵⁵⁰ The discussion of land use and maps in Chapter 3 of Holtec’s Environmental Report reports the status of mineral rights and land ownership at the proposed HI-STORE site.

Regarding possible brine, contaminated groundwater, soil, and wind-blown dust that could potentially degrade the HI-STORE vault and spent fuel storage canisters stored therein, we agree with the NRC Staff that this aspect of the contention concerns safety,⁵⁵¹ yet Joint Petitioners do not cite to or even mention the SAR. Holtec did address issues regarding soil chemistry analysis and groundwater flow at the site both in its Environmental Report and SAR.⁵⁵² Joint Petitioners do not proffer any explanation of how this alleged caustic brine, groundwater, or soil could enter into the HI-STORE UMAX system and corrode the canisters. Nor do they proffer facts or expert opinion discussing how the alleged wind-blown caustic dust could get to the UMAX and degrade the UMAX concrete. Therefore, this aspect of the contention

549. ER at 3-2.

550. *Id.*

551. NRC Staff Consol. Answer at 43-44.

552. *See* ER at 3-15 (soil); *id.* at 3-39 to -41, 3-54 (Fig. 3.5.1), 3-56 (Fig. 3.5.3) (groundwater); SAR at 2-3 to -9, 2-26 (soil); *id.* at 1-5, 1-14; 2-78 to -79, 2-81, 2-90, 2-96 to -99 (groundwater).

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is inadmissible for failing to raise a genuine dispute with Holtec's license application.⁵⁵³

Finally, as to the alleged lack of discussion of seismology inside the site boundary pursuant to section 73.103(f), the Environmental Report and the SAR do discuss geological and seismic issues as they relate to mining and fracking inside the site boundary.⁵⁵⁴ As discussed *supra* in connection with Sierra Club Contention 14, no faults of any kind were found at the proposed site (i.e., inside the site boundary⁵⁵⁵). Joint Petitioners' other allegations are impermissibly vague.⁵⁵⁶

Joint Petitioners Contention 5 is not admitted.

6. Joint Petitioners Contention 6

Joint Petitioners Contention 6 states:

The Holtec [facility] is a major component of a large plan to aggregate [spent nuclear fuel] in southeastern New Mexico for purposes of reprocessing. A radioactively 'dirty' industrial

553. 10 C.F.R. § 2.309(f)(1)(v), (vi).

554. *See* ER at 3-17 to -18; SAR at 2-107 to -108.

555. *See* ER at 3-13 to -14.

556. *See Southern Nuclear Operating Co.* (Vogtle Electric Generating Plant, Units 3 and 4), LBP-16-5, 83 NRC 259, 281 (2016) (citing *Palisades*, LBP-06-10, 63 NRC at 341, *aff'd*, CLI-06-17, 63 NRC 727 (2006)).

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activity, reprocessing has been omitted from analysis and disclosure of cumulative environmental impacts.⁵⁵⁷

Joint Petitioners rely on “a 2015 slide show given by a Holtec representative to the New Mexico State Legislature” that stated that the proposed facility may provide “flexibility for recycling, research, and disposal” and also listed ““reprocessing [spent nuclear fuel]” as an option under “waste solutions.”⁵⁵⁸ Joint Petitioners also cite a 2017 *Los Angeles Times* article that quoted a voting member of the Eddy-Lea Energy Alliance as saying, “We believe if we have an interim storage site, we will be the center for future nuclear fuel reprocessing.”⁵⁵⁹ Joint Petitioners claim that NEPA requires a cumulative impacts analysis of reprocessing spent nuclear fuel at the proposed facility, because such an action “falls within the realm of ‘cumulative actions’ delineated in the [Council on Environmental Quality (CEQ)] regulations.”⁵⁶⁰

Joint Petitioners fail to raise a genuine dispute with the application on an issue of material fact or law, because the application does not seek authorization for, or even mention,

557. Joint Pet’rs Pet. at 55.

558. *Id.*

559. *Id.* at 55-56.

560. *Id.* at 59. The CEQ regulations do not bind the NRC as an agency, but the Commission has chosen to follow them in some instances. *See Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-11-11, 74 NRC 427, 443-44 (2011).

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reprocessing at the proposed facility. Neither NEPA nor NRC regulations require an environmental analysis of potential actions that are “merely contemplated” and have not been proposed.⁵⁶¹ We agree with the NRC Staff that the cited sources, at most, “suggest a political appetite for such a project in the area,” without creating any proposed plans for reprocessing spent fuel.⁵⁶²

Because reprocessing is not material to Holtec’s license application, Joint Petitioners’ claims about the safety of reprocessing are not relevant. In addition, their claims are unsupported by any facts or expert opinion, and do not raise a genuine issue with the application for that reason as well.

Joint Petitioners Contention 6 is not admitted.

7. Joint Petitioners Contention 7

Joint Petitioners original Contention 7 states:

Holtec’s “HI-STORE philosophy” of “Start Clean/Stay Clean,” whereby incoming shipments of canisters that are contaminated,

561. *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-14, 55 NRC 278, 295 (2002). *See also Kleppe v. Sierra Club*, 427 U.S. 390, 410 (1976); *Strata Energy, Inc.* (Ross In Situ Uranium Recovery Project), CLI-16-13, 83 NRC 566, 577 (2016), *petition for review denied sub nom., Nat. Res. Def. Council v. NRC*, 879 F.3d 1202 (D.C. Cir. 2018).

562. NRC Staff Consol. Answer at 47.

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leaking, or otherwise compromised will be returned to the originating power plant for dispositioning, is illegal under NRC regulations and the Atomic Energy Act. It is unlawful to knowingly ship containers with radiation on exposed or external surfaces. Once delivered to the site, leaky and/or contaminated canisters must remain at Holtec – but Holtec expressly intends to return such canisters to their points of origin. Leaking or otherwise compromised shipping containers would likewise present an immediate danger to the corridor communities through which they would travel back to their nuclear power plant site of origin, likely violating numerous additional NRC and DOT regulations[.]⁵⁶³

On February 18, 2019, Joint Petitioners moved to amend Contention 7, seeking to add the following paragraph:

Holtec’s refusal to publicize emergency and contingency plans, as well as its insistence that there is zero potential accident or attack scenario that would result in a radiation release (and hence no need for dry transfer storage capability) reflects a lack of a national policy for handling and disposal of [spent nuclear fuel] and Holtec’s misperception as to the role of a CISF in national policy. The applicant’s

563. Joint Pet’rs Pet. at 61.

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non-credible positions on these matters takes them outside the coverage and shield of the Continued Storage GEIS and requires them to be scrutinized under NEPA and addressed in the Environmental Impact Statement.⁵⁶⁴

Joint Petitioners base the motion on (1) Holtec's RAI Response 9-3 and (2) Holtec's RAI Response LA-1, both dated January 16, 2019 and released in the NRC's Agencywide Documents Access and Management System (ADAMS) on January 17, 2019. Joint Petitioners specifically cite the portion of RAI Response 9-3 that references SAR 9.2.2, "Operational Activities," addressing the NRC Staff's request for clarification about off-normal conditions "in addition to the normal, off-normal and accident conditions while on-site prior to, or during receipt inspection."⁵⁶⁵ Joint Petitioners also cite RAI Response LA-1, which addressed the NRC Staff's questions regarding "the absence of a time limit for a canister to be returned to the nuclear plant of origin or other facility licensed to perform fuel loading procedures" in the HI-STORE storage facility's Technical Specifications.⁵⁶⁶

We first consider whether Joint Petitioners' motion to amend Contention 7 meets the three-pronged standard for good cause under 10 C.F.R. § 2.309(c). It does not. RAI Response 9-3 did not reveal any materially new

564. Joint Pet'rs Amended Contentions 4 & 7, at 6.

565. RAI Response 9-3 at 4.

566. RAI Response LA-1 at 1.

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information.⁵⁶⁷ Joint Petitioners previously had the chance to challenge the statement in Holtec’s SAR section 9.2.2 that identified “no credible events . . . that would result in a release of any radioactive materials into the work areas or the environment.”⁵⁶⁸ And essentially they did just that in Contention 7, as originally filed. In the absence of new information, Joint Petitioners are not entitled to a second chance to support a claim that was identified in their original pleadings by proffering the statement of Dr. Gordon Thompson at this late date.

As to RAI Response LA-1, the Board also concludes that it presents no materially different new information under 10 C.F.R. § 2.309(c)(1). The NRC Staff merely sought details concerning the time limit during which a canister would be returned to the site of origin or licensed fuel loading site, and Holtec responded by amending its SAR at section 10.3.3.1 and section 5.5.5.b.3 to its proposed materials license.⁵⁶⁹ Although these sections now detail that the amount of time Holtec would have to return a leaky canister to its point of origin or fuel loading facility is based on the NRC’s maximum annual dose rate limits, Joint Petitioners’ overarching “start clean/stay clean”

567. See discussion of RAI Response 9-3 under Joint Petitioners Contention 4, *supra*.

568. SAR at 9-7.

569. See SAR at 10-12 to -14; Revised App. A to Materials License No. SNM-1051, Tech. Specs. for the HI-STORE [CISF] at 5-6 (Nov. 30, 2018) (ADAMS Accession No. ML18345A138).

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challenge is the same as in their original petition.⁵⁷⁰ And Holtec's procedure is in accord with Joint Petitioners' originally-disputed portion of the SAR (rev. 0A), section 3.1.4.6.⁵⁷¹ This new information is therefore not materially different.

Joint Petitioners' witness, Dr. Thompson, opines that the potential use of a "sequestration canister with a gasketed lid," without an articulated plan for its use, "suggests that Holtec is not serious about contingency planning."⁵⁷² RAI Response LA-1 does not create a basis for the sequestration canister aspect of the proposed amended Contention 7, as that information was readily available before the deadline for petitions in this proceeding.⁵⁷³ Finally, even if we were to find that the information in RAI Response LA-1 is new and material, Joint Petitioners do not provide a sufficient nexus to the amended Contention 7. RAI Response LA-1 simply does not support Joint Petitioners' new challenges concerning Holtec's alleged "refusal to publicize emergency and contingency plans," the "lack of a national policy for handling and disposal of [spent nuclear fuel]," and Holtec's "misperception as to the role of a CISF in national policy."⁵⁷⁴

570. *See* Joint Pet'rs Pet. at 61.

571. *Id.* at 62.

572. Joint Pet'rs Motion to Amend 4 & 7, at 8.

573. *See* SAR rev. 0C at 604 (May 31, 2018).

574. Joint Pet'rs Amended Contentions 4 & 7, at 6. Even if we accepted that this alleged new information supported these assertions, Holtec's Emergency Plans were available at the com-

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We deny the motion to amend Contention 7, and therefore analyze Contention 7 as originally pled. Joint Petitioners assert that Holtec’s “policy of rejecting and returning canisters that have unacceptable external radioactive or structural damage[] . . . will create potential exposure routes that pose radioactive contamination threats to the public, nuclear workers, and the environment.”⁵⁷⁵ Joint Petitioners also take issue with the lack of a dry transfer system at the proposed storage facility, claiming that such a transfer system could potentially ameliorate their concerns regarding casks that arrive damaged to the facility.⁵⁷⁶

Joint Petitioners Contention 7 is inadmissible because it fails to cite facts or expert opinions that support Joint Petitioners’ position on the issue of the “start clean/stay clean” philosophy. Although Joint Petitioners claim that a canister could arrive to the facility damaged and emitting “significant radioactive materials” that could “migrate off-site,”⁵⁷⁷ they offer no facts or expert opinion supporting that position. Specifically, Joint Petitioners fail to submit facts or expert opinion that show (1) how the spent fuel, when packaged at the reactor site, would

mencement of the proceeding, SAR at 6-45, 10-29, 15-10, 15-11, 15-16, and challenges to the national spent fuel management policy go well beyond the permissible scope of this proceeding. 10 C.F.R. § 2.309(f)(1)(iii).

⁵⁷⁵. Joint Pet’rs Pet. at 61-62.

⁵⁷⁶. *Id.* at 64.

⁵⁷⁷. *Id.* at 62.

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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 petitions were due in this proceeding, is an inadequate remedy should the cask and canister somehow become damaged.

Indeed, the Commission has already spoken to this issue in a similar proposed facility proceeding, *Private Fuel Storage*.⁵⁷⁸ In that proceeding, the State of Utah proffered a contention where a canister “improperly constructed or improperly sealed, could be loaded and shipped” to the spent fuel storage facility, which in turn could harm the environment.⁵⁷⁹ Similar to Holtec's proposed policy, storage facility operator Private Fuel Storage's (PFS) policy was to ship back a leaking or defective canister to its point of origin, and Utah alleged that this practice was unsafe (as Joint Petitioners do here).⁵⁸⁰

As the NRC had already generically determined that an accidental canister breach was not a credible scenario, the Commission held that Utah had failed to advance a credible, unconsidered accident scenario

578. *Private Fuel Storage*, CLI-04-22, 60 NRC at 136-37.

579. *Id.* at 136, 137.

580. *Id.* at 138.

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concerning a canister breach while in transport.⁵⁸¹ And as for PFS’s “return to sender” policy regarding damaged fuel canisters, which is the same as Holtec’s, the Commission held that Utah had failed to contest the NRC-approved quality assurance programs in the packaging and transportation of spent nuclear fuel⁵⁸² – those very programs that provide that a transportation accident or breach of canister is not credible. As *Private Fuel Storage* is analogous to this proceeding, we reject Contention 7 for the same reasons the Commission rejected Utah’s contention.

Joint Petitioners Contention 7 is not admitted.

8. Joint Petitioners Contention 8

Joint Petitioners Contention 8 states:

In several places in the [Environmental Report], Holtec states that “Table 4.9.1” provides data tending to show minimal radiation dangers from transporting the casks of spent nuclear fuel [(SNF)]. The data is not narratively reproduced in the ER. The missing table undermines Holtec’s basis for claiming minimal effects from transporting SNF and GTCC waste.⁵⁸³

581. *Id.* at 137.

582. *Id.* at 138.

583. Joint Pet’rs Pet. at 64.

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Because Joint Petitioners withdrew Contention 8,⁵⁸⁴ it is not admitted.

9. Joint Petitioners Contention 9

Joint Petitioners Contention 9 states:

There is only one map published in the Environmental Report that shows any of the routes which will be taken for delivery of [spent nuclear fuel (SNF)] and [greater than class C (GTCC)] waste to Holtec, and it only mentions transport of radioactive material from two reactors. The information provided comes nowhere near disclosure of a 20-year transport campaign of an estimated 10,000 cask deliveries.⁵⁸⁵

Joint Petitioners ask for “unconditional disclosure of probabl[e] transportation routes, whether by barge, highway or rail” so that they can “meaningfully participate in the NEPA process” and “public and emergency response officials [can] begin to understand the scope of the Holtec project’s transportation side.”⁵⁸⁶ They also claim that the “transportation aspects of Holtec are of high significance to completion of the project” and that NRC regulations require discussion of “[a]dverse environmental effects

584. Joint Pet’rs Reply at 50.

585. Joint Pet’rs Pet. at 66.

586. *Id.* at 67.

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which cannot be avoided,” of alternatives, and of “any irreversible and irretrievable commitments of resources which would be involved in the proposed action,” as well as an “investigation of environmental effects of the act of transporting the [spent nuclear fuel]-filled canisters.”⁵⁸⁷

We agree with the NRC Staff⁵⁸⁸ and Holtec⁵⁸⁹ that Joint Petitioners fail to demonstrate how NEPA or NRC regulations require a specific assessment of possible transportation routes. None of the legal authority cited by Joint Petitioners (10 C.F.R. §§ 51.45, 72.108, and NEPA) specifies that a certain number of transportation routes must be analyzed in an applicant’s Environmental Report, let alone every conceivable transportation route. Holtec’s Environmental Report already evaluates three “representative routes” to determine likely radiological impacts of transportation – one from San Onofre to the proposed facility, one from Maine Yankee to the proposed facility, and one from the proposed facility to Yucca Mountain.⁵⁹⁰ The use of representative routes is in keeping with past NRC practice to evaluate transportation

587. *Id.* at 67-68 (citing 10 C.F.R. §§ 51.45(b)(1)-(3),(5), 72.108).

588. *See* NRC Staff Consol. Answer at 51-53.

589. *See* Holtec Answer to Joint Pet’rs at 70-71.

590. ER at § 4.9.

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impacts.⁵⁹¹ Joint Petitioners have failed to raise a genuine dispute with Holtec’s application.

Regarding Joint Petitioners’ statement that “public and emergency response officials” need “unconditional disclosure of probabl[e] transportation routes,” we agree with Holtec⁵⁹² that this concern is outside the scope of this proceeding. Spent nuclear fuel transportation route identification requires separate review and approval by the NRC and the Department of Transportation, as well as by applicable States or Tribes.⁵⁹³ For that separate review process, Holtec will also need to coordinate with local law enforcement and emergency responders. Such coordination is not relevant at this point in the licensing process.

Joint Petitioners Contention 9 is not admitted.

591. *See, e.g.*, Continued Storage GEIS at 5-49 to -54; 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 at 5-39 (Dec. 2001). *See also* 10 C.F.R. § 51.52, tbl. S-4 (deriving generic effects of transportation and fuel waste for one power reactor based on survey of then-existing power plants).

592. Holtec Answer to Joint Pet’rs at 68.

593. *See* 10 C.F.R. Parts 71 and 73; 49 C.F.R. Parts 107, 171-180, 390-397.

*Appendix E***10. Joint Petitioners Contention 10**

Joint Petitioners Contention 10 states:

Holtec plans to provide long-term [spent nuclear fuel (SNF)] storage for up to 120 years, or for however much time beyond 120 years it may take to develop a deep geological repository elsewhere. Holtec itself has recommended to the U.S. Department of Energy that a [CISF] should have a minimum service life of 300 years.⁵⁹⁴

Joint Petitioners claim that “[e]xtended operation of the Holtec CISF beyond the 100-year benchmark is a cumulative action and must be analyzed as such under NEPA.”⁵⁹⁵

The proposed action in this proceeding is a 40-year initial license.⁵⁹⁶ Holtec may anticipate following the initial license with two 40-year license renewals, under 10 C.F.R. § 72.42, but that is not relevant to this proceeding, as those renewals would trigger new hearing opportunities. The Continued Storage Rule explicitly provides that an applicant’s Environmental Report is

594. Joint Pet’rs Pet. at 68 (internal quotations omitted).

595. *Id.* at 69.

596. Notice of Opportunity to Request a Hearing, 83 Fed. Reg. at 32,919 (“If the NRC approves the application and issues a license to Holtec, Holtec intends to store . . . commercial spent nuclear fuel . . . for a 40-year license term.”).

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not required to discuss impacts following the proposed license term.⁵⁹⁷ Therefore, we agree with the NRC Staff⁵⁹⁸ and Holtec⁵⁹⁹ that Joint Petitioners impermissibly challenge the Continued Storage Rule and the impact evaluations contained in the Continued Storage GEIS. Joint Petitioners have not requested a waiver, and this contention is therefore outside the scope of this proceeding under 10 C.F.R. § 2.309(f)(1)(iii).

Joint Petitioners Contention 10 is not admitted.

11. Joint Petitioners Contention 11

Joint Petitioners Contention 11 states:

NEPA Requires Significant Security Risk Analyses for the Massive Spent Nuclear Fuel and Greater-Than-Class-C Wastes Proposed for Interim Storage And Associated Transportation Component at Holtec's New Mexico Facility.⁶⁰⁰

Joint Petitioners claim that this Board should require in Holtec's Environmental Report an analysis of terrorist attacks as a "not so remote and highly speculative" environmental impact, consistent with the Ninth Circuit's

597. 10 C.F.R. § 51.23(b).

598. NRC Staff Consol. Answer at 54.

599. Holtec Answer to Joint Pet'rs at 72.

600. Joint Pet'rs Pet. at 70.

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decision in *San Luis Obispo Mothers for Peace v. NRC*.⁶⁰¹ Joint Petitioners then direct the Board to a 69-page report by Dr. James D. Ballard concerning human-initiated events, transportation, and storage of highly radioactive materials at the proposed UMAX interim storage facility.⁶⁰² Based on the Ballard Report, Joint Petitioners put forward twenty-eight “detailed sub-contentions”⁶⁰³ ranging from recommending Holtec create a “site specific and programmatic EIS process” because of its “vertical monopoly” in the energy industry;⁶⁰⁴ to wanting the NRC and/or Holtec to “define [Design Basis Events] and [Design Basis Threats] for the whole duration of the transportation campaign;”⁶⁰⁵ to recommending the NRC define through regulations the specific penalties to be imposed upon Holtec for “lack of vigilance” in any aspect of the transportation and the management of the spent fuel;⁶⁰⁶ to suggesting the NRC incorporate consent-based

601. Joint Pet’rs Pet. at 77 (quoting *San Luis Obispo Mothers for Peace v. NRC*, 449 F.3d 1016, 1032 (9th Cir. 2006)).

602. James David Ballard, *Holtec HI-STORM UMAX Interim Storage Facility (a.k.a. CISF): Human Initiated Events (HIE), Transportation of the Inventory and Storage of Highly Radioactive Waste Materials* (Sept. 2018) [hereinafter Ballard Report]. Dr. Ballard has a Ph.D. in sociology and is a professor of criminology and justice studies at California State University, Northridge.

603. Joint Pet’rs Pet at 79.

604. *Id.* at 79-80.

605. *Id.* at 80.

606. *Id.* at 84.

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siting, waste transport, and storage based on the Blue Ribbon Commission and National Academy of Sciences report recommendations.⁶⁰⁷

In *San Luis Obispo Mothers for Peace*, the United States Court of Appeals for the Ninth Circuit held “that it was unreasonable for the NRC to categorically dismiss the possibility of terrorist attack on the Storage Installation . . . as too remote and highly speculative to warrant consideration under NEPA.”⁶⁰⁸ And although Joint Petitioners acknowledge that New Mexico is not part of the Ninth Circuit,⁶⁰⁹ they claim that because “hundreds of shipments will come through the Ninth Circuit en route to New Mexico . . . the Ninth Circuit law must be respected and abided by within the geographic territory of the Ninth Circuit,” and thus Holtec must conduct a terrorism analysis in its Environmental Report under the Ninth Circuit standard in accordance with NEPA.⁶¹⁰

The NRC takes the position (as confirmed by the United States Court of Appeals for the Third Circuit⁶¹¹) that for all licensing actions outside the Ninth Circuit, “terrorist attacks are too far removed from the natural

607. *Id.* at 85.

608. *San Luis Obispo Mothers for Peace*, 449 F.3d at 1030 (internal quotations omitted).

609. Joint Pet’rs Reply at 61.

610. Tr. at 174.

611. *N.J. Dep’t of Env’tl. Prot. v. NRC*, 561 F.3d 132 (3d Cir. 2009).

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or expected consequences of agency action to require environmental analysis.”⁶¹² Unless the proposed facility would be located in one of the nine states in the Ninth Circuit, no terrorist analysis under NEPA is required. Holtec’s facility would be constructed in New Mexico (located in the Tenth Circuit). Holtec’s Environmental Report need not conduct an analysis concerning terrorism under NEPA. This aspect of Contention 12 is therefore inadmissible as outside the scope of this proceeding.⁶¹³

As to the remaining recommendations and observations in the Ballard Report, we agree with the NRC Staff’s assessment⁶¹⁴ that all of the twenty-eight proffered subcontentions fall short of the Commission’s contention admissibility standards. Namely, they all fail to show a genuine dispute with the interim storage facility application, much less even address or acknowledge the application in the petition.⁶¹⁵ An admissible contention must, at a minimum, reference the portion of the application to which the contention is challenging “and show where the applicant is lacking” – here, none of the subcontentions

612. Continued Storage GEIS at 4-91.

613. 10 C.F.R. § 2.309(f)(1)(iii).

614. *See* NRC Staff Consol. Answer at 57-59.

615. The NRC Staff notes, and we agree, that only in one place does the Ballard Report cite sections of the application. *See* Ballard Report at 54-55 n.11. The report does not grapple with the application as required by the Commission’s contention admissibility standards.

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does this.⁶¹⁶ Board proceedings regarding an application for an NRC-issued license are not a proper forum for contentions that comprise broad policy recommendations and challenges to the Agency's rules.⁶¹⁷

Joint Petitioners Contention 11 is not admitted.

12. Joint Petitioners Contention 12

Joint Petitioners Contention 12 states:

Because of the geologic formations and conditions beneath the Holtec site, there are risks inherent in siting and operating the [consolidated interim storage] facility as proposed by Holtec. The [Environmental Report] and SAR in this case do not adequately discuss and evaluate the risks created by those geologic conditions.⁶¹⁸

Joint Petitioners cite two regulations, 10 C.F.R. § 51.45 (requirement for an environmental report) and 10 C.F.R. § 72.90 (site characteristics related to safety),⁶¹⁹ but mainly rely on a thirty-page report by a geologist, Dr.

616. *Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 156 (1991).

617. 10 C.F.R. § 2.335.

618. Joint Pet'rs Pet. at 88.

619. *Id.*

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Steven Schafersman.⁶²⁰ Joint Petitioners allege that Dr. Schafersman has “extensive experience and knowledge regarding Permian Basin geology.”⁶²¹ The Schafersman Report is divided into two parts: Part I, which presents “three geologic reasons that demonstrate why it is inadvisable to temporarily or permanently store [spent nuclear fuel/high level nuclear waste]” at the proposed Holtec site; and Part II, which presents “six major reasons that oppose the transport and storage of [spent nuclear fuel/high level nuclear waste] at the Holtec site.”⁶²² In his report, Dr. Schafersman generally describes the geology⁶²³ and hydrology⁶²⁴ of the region, and puts forth his ideas concerning “several scientific, economic, political, and anecdotal reasons that make it inadvisable to store high-level nuclear wastes” at the proposed HI-STORE UMAX storage facility.⁶²⁵

Joint Petitioners Contention 12 is inadmissible because it does not comply with the Commission’s strict-by-design

620. See Steven Schafersman, Ph.D., *Geological Report Documenting and Opposing Use of the Holtec Site in New Mexico to Store High Level Nuclear Wastes* (2018) [hereinafter Schafersman Report].

621. *Id.*

622. Schafersman Report at unnumbered p. 1.

623. *Id.* at unnumbered pp. 1-16.

624. *Id.* at unnumbered pp. 16-20.

625. *Id.* at unnumbered pp. 20-30.

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contention admissibility standards.⁶²⁶ Merely referencing a report that does not identify specific portions of the license application does not comply with the Commission’s specificity requirements.⁶²⁷ The Schafersman Report does not provide sufficient information to show that a genuine dispute exists with Holtec’s license application;⁶²⁸ indeed, the Schafersman Report does not even mention the Holtec application (save for one reference to Figure 3.3.2 in the Environmental Report to establish that the top of the Salado Formation below the Holtec storage facility is 1400 feet below the facility) and does not challenge any aspect of the application.

The Commission’s contention admissibility rules require petitioners seeking intervention “to read the pertinent portions of the license application, including the [SAR] and the Environmental Report, [and] state the applicant’s position and the petitioners’ opposing view.”⁶²⁹ The Schafersman Report does not meet this requirement.⁶³⁰

626. *Millstone*, CLI-01-24, 54 NRC at 358.

627. *See NextEra Energy Seabrook LLC* (Seabrook Station, Unit 1), CLI-12-5, 75 NRC 301, 332 (2012); *Baltimore Gas & Electric Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-98-25, 48 NRC 325, 348 (1998) (“Mere reference to documents does not provide an adequate basis for a contention.”).

628. 10 C.F.R. § 2.309(f)(1)(vi).

629. Rules of Practice for Domestic Licensing Proceedings – Procedural Changes in the Hearing Process, 54 Fed. Reg. 33,168, 33,170 (Aug. 11, 1989).

630. Further, several of Contention 12’s claims are outside the scope of this proceeding. *See, e.g.*, Schafersman Report at 4

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Joint Petitioners Contention 12 is not admitted.

13. Joint Petitioners Contention 13

Joint Petitioners Contention 13 states:

Pursuant to 10 C.F.R. [§] 2.309(f)(3), Petitioners move to adopt all contentions filed by the Sierra Club in this proceeding and to re-allege them as their own as if written herein.⁶³¹

To adopt a contention, a participant must have demonstrated standing in their own right and have themselves proffered an admissible contention.⁶³² As Joint Petitioners have done neither, they may not adopt any of Sierra Club’s contentions.

Joint Petitioners Contention 13 is not admitted.

(exploring the supposition that a “large militia group can take over the facility, declare themselves an independent state” and threaten to destroy the storage facility should authorities try to take back the facility); 21 (alleging the facility will be permitted for 120 years and the fuel will never be moved to a permanent repository); 22 (discussing “our poorly-regulated American free enterprise system” where corporations internalize gains and externalize losses at the expense of the environment).

631. Joint Pet’rs Pet. at 88.

632. *See Indian Point*, CLI-01-19, 54 NRC at 132-33.

*Appendix E***14. Joint Petitioners Contention 14**

Joint Petitioners Contention 14 states:

Section 186 of the Atomic Energy Act (AEA) (42 U.S.C. § 2236) provides that a license issued by the NRC may be revoked for any material false statement in the license application. Holtec has made a material false statement in its license application in this case by stating repeatedly that title to the waste to be stored at the [consolidated interim storage] facility would be held by DOE and/or the nuclear plant owners. This false statement was repeated in Holtec's Answers to Sierra Club's Contention 1 and [Joint Petitioners'] Contention 2.

The statement that nuclear plant *owners* might retain title to the waste is shown to be false by a January 2, 2019, e-mail message from Holtec to the public titled "Reprising 2018[.]" "Reprising 2018" states, "While we endeavor to create a national monitored retrievable storage location for aggregating used nuclear fuel at reactor sites across the U.S. into one (HI-STORE CISF) to maximize safety and security, its deployment will ultimately depend on the DOE and the U.S. Congress."

Thus, if a false statement such as Holtec has made in its filings in this case is grounds for

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revoking a license, it is grounds for not issuing the license in the first instance.⁶³³

Joint Petitioners' Contention 14 is substantially identical to Sierra Club Contention 26. It is based on the same January 2, 2019 Holtec e-mail message to the public ("Reprising 2018"), and was submitted on the same day (January 17, 2019).

As discussed *supra*, the Board granted the motion to file Sierra Club Contention 26, but rejected the Contention as inadmissible. For the same reasons, we grant the motion to file Joint Petitioners Contention 14 and likewise rule it inadmissible.

Joint Petitioners Contention 14 is not admitted.

D. Fasken

Rather than submit a contention in response to the proceeding's *Federal Register* notice, Fasken instead filed a motion with the Commission to dismiss this proceeding as well as the *Interim Storage Partners LLC* proceeding, which involves a proposed interim storage facility that would be constructed in Texas.⁶³⁴ The Secretary of the Commission denied the motion and referred it for review under the NRC's contention admissibility standards.⁶³⁵

633. Joint Pet'rs Motion to File New Contention, attach., [Joint Petitioners] Contention 14, at unnumbered p. 1.

634. Fasken Motion to Dismiss at 1-8.

635. Order Denying Motions to Dismiss.

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Fasken's contention states:

The NRC lacks jurisdiction over the [application] because [it is] premised on the proposition that the U.S. Department of Energy ("DOE") will be responsible for the spent fuel that would be transported to and stored at the proposed [facility]. This premise is prohibited under the NWPA because the DOE is precluded from taking title to spent fuel until a permanent repository is available.⁶³⁶

The NRC's acceptance and processing of the application[] conflicts with the essential predicate that a permanent repository be available before licensure of a [consolidated interim storage facility]. Further, processing the subject applications implies that the NRC disregards the NWPA's unambiguous requirement that spent fuel remain owned by and is the responsibility of reactor licensees until a permanent repository is available. The logic that underpins the plain language of the NWPA's requirement for a functioning permanent repository is effectively vitiated by processing the[] application []. [Fasken] contend[s] the [consolidated interim storage facility] applicant [] should be required to show cause why [its] application[] do[es] not constitute

636. Fasken Motion to Dismiss at 1-2 (citing 42 U.S.C. §§ 10222(a)(5)(A), 10143).

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a violation of the NWPA since no permanent repository for spent nuclear fuel exists in the United States. Processing the[] application [] to licensure under the present circumstances invites the situation Congress was attempting to avoid because licensure of a CISF without an available permanent repository contradicts the NWPA's objective to establish a permanent repository. The prospect that any CISF will become a *de facto* permanent repository is precisely what the NWPA intends to avoid.⁶³⁷

Fasken's contention is similar to Beyond Nuclear's contention. However, its basis solely relies upon Beyond Nuclear's petition and incorporates by reference "the arguments and authorities in the Beyond Nuclear Inc. motion to dismiss at sections IV, V and VI."⁶³⁸

The Commission has approved the incorporation of contentions of other petitioners by reference, but only for those who have demonstrated standing and have submitted their own admissible contention themselves.⁶³⁹ However, the Commission cautioned:

Nor will we permit wholesale incorporation by reference by a petitioner who, in a written submission, merely establishes standing and attempts, without more, to incorporate

637. *Id.* at 2 (citing Decl. of Tommy Taylor ¶ 8).

638. *Id.* at 7.

639. *Indian Point*, CLI-01-19, 54 NRC at 132.

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the issues of other petitioners. Further, we would not accept incorporation by reference of another petitioner's issues in an instance where the petitioner has not independently established compliance with our requirements for admission as a party in its own pleadings by submitting at least one admissible issue of its own.⁶⁴⁰

Although Fasken demonstrated standing in this proceeding, it did not proffer a contention of its own – it only incorporated Beyond Nuclear's arguments and authorities by reference. Fasken would be permitted to do this if it had proffered its own admissible contention, but it did not.

Fasken's contention is therefore not admitted.

E. AFES**1. AFES Contention 1**

AFES Contention 1 states:

As a matter of law, the applicant has not performed a sufficient investigation and has not done a sufficient analysis to support that the Holtec site will not have a disparate impact on the minority and low income population of Lea and Eddy County.⁶⁴¹

640. *Id.* at 133.

641. AFES Pet. at 11.

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AFES objects to Holtec's site selection process, because it alleges that the siting process "entirely fails to account for *alternative sites*" for Holtec's proposed fuel storage facility.⁶⁴² AFES cites a licensing board decision, *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center),⁶⁴³ alleging that *Claiborne* is akin to binding precedent upon this Board because that licensing board "addressed in detail what a licensing applicant must do to ensure that the site selection process to possess and use nuclear material is free from impermissible discrimination as to minority and low income populations."⁶⁴⁴ AFES further alleges that Holtec violates NEPA, *Claiborne*, and Executive Order 12898 (which incorporates the topic of environmental justice into all executive agencies' NEPA reviews)⁶⁴⁵ because it did not conduct a site selection process "other than a cursory review of a report on a different site selection process"⁶⁴⁶ and allegedly only relied "on the unsupported opinions" of the Eddy-Lea Energy Alliance (ELEA).⁶⁴⁷

642. *Id.* at 17 (emphasis in original).

643. *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), LBP-97-8, 45 NRC 77 (1997), *aff'd in part, rev'd in part*, CLI-98-3, 47 NRC 77 (1998).

644. AFES Pet. at 11.

645. *See* Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations, Exec. Order 12898, 59 Fed. Reg. 7629 (Feb. 11, 1994) [hereinafter Exec. Order 12898].

646. AFES Pet. at 18.

647. *Id.* at 19.

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Environmental justice is a federal policy established in 1994 by Executive Order 12898 directing federal agencies to identify and address “disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.”⁶⁴⁸ The Commission’s *Claiborne* decision clarified that NEPA requires the NRC to consider “social and economic impacts ancillary” to environmental impacts; that is, environmental justice concerns.⁶⁴⁹

In response to *Claiborne* and Executive Order 12898, the NRC promulgated its policy statement concerning environmental justice matters involving NRC licensing and regulatory actions.⁶⁵⁰ The policy statement directs the Staff to conduct a more thorough analysis “if the percentage in the impacted area significantly exceeds that of the State or County percentage for either the minority or low-income population.”⁶⁵¹ Although not binding regulations, NRC guidance documents specify that the applicant’s Environmental Report should include “a discussion of the methods used to identify and quantify

648. See Exec. Order 12898, 59 Fed. Reg. at 7629.

649. *Claiborne*, CLI-98-3, 47 NRC at 101.

650. See Policy Statement on the Treatment of Environmental Justice Matters in NRC Regulatory and Licensing Actions, 69 Fed. Reg. 52,040, 52,040-41, 52,048 (Aug. 24, 2004) [hereinafter NRC Environmental Justice Policy Statement]. Because the NRC is an independent agency, Executive Order 12898 did not automatically apply to the NRC.

651. *Id.* at 52,048.

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impacts on low-income and minority populations, the location and significance of any environmental impacts during construction on populations that are particularly sensitive, and any additional information pertaining to mitigation.”⁶⁵² The NRC Staff considers “differences [of block groups compared to the state and county percentages of minority populations] greater than 20 percentage points to be significant” enough for an Environmental Report to warrant greater detail.⁶⁵³

We conclude that AFES Contention 1 is not admissible 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. Moreover, AFES has not cited any legal basis mandating Holtec to further analyze environmental justice impacts. Environmental Report section 3.8 describes the social and economic characteristics for the 50-mile region of influence (ROI) around Holtec’s proposed facility.⁶⁵⁴ Environmental Report section 3.8.5, titled “Environmental Justice,” cites to and responds to Executive Order 12898 and the NRC Environmental Justice Policy Statement regarding the proposed storage facility’s ROI. The Environmental Report’s table 3.8.13 identifies percentages of minority and low-income

652. Final Report, Environmental Review Guidance for Licensing Actions Associated with NMSS Programs, NUREG-1748 at 6-25 (Aug. 2003) [hereinafter NUREG-1748].

653. *Id.* at C-5.

654. *See* ER at 3-95.

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communities within the Holtec facility's ROI. Because Holtec did not find differences greater than 20 percent, as recommended by the NRC Environmental Justice Policy Statement,⁶⁵⁵ Holtec did not consider environmental justice in greater detail than it already had. As AFES cites no other legal requirement for Holtec to consider environmental justice impacts in greater detail, the contention fails to show a genuine dispute with the application regarding a material issue of law or fact.

Insofar as the contention concerns Holtec's site selection process, where AFES alleges the Environmental Report "fails to account for alternative sites,"⁶⁵⁶ (i.e., a contention of omission) the contention fails as well. The Environmental Report contains an analysis of location alternatives that explains the methodology of Holtec's selection of the proposed site,⁶⁵⁷ and also shows six other potential sites that were analyzed and considered for suitability of the Holtec HI-STORE consolidated interim storage facility's characteristics.⁶⁵⁸

AFES Contention 1 is not admitted.

655. *Id.* at 4-29.

656. AFES Pet. at 17.

657. *See* ER §§ 2.3, 2.4.2.

658. *Id.* at 2-27 (Fig. 2.3.1).

*Appendix E***2. AFES Contention 2**

AFES Contention 2 states:

As a matter of fact and expert opinion, the siting process will have a disparate impact on the minority and low income population of Lee and Eddy County.⁶⁵⁹

To support its assertion, AFES submits an affidavit from Professor Myrriah Gómez, Ph.D., that is entitled “Environmental Racism an Active Factor in the Siting and White Privilege Associated with the Holtec International HI-STORE Consolidated Interim Storage Facility Project.”⁶⁶⁰ Dr. Gómez claims that the proposal “is an example of environmental racism based on studies defining and documenting environmental racism across . . . the United States,” and alleges that the proposed Holtec facility meets African-American civil rights leader Benjamin Chavis’s definition of environmental racism.⁶⁶¹ AFES argues that “Holtec’s reliance on an invitation for siting by a small group of government officials is a deficient process from the outset.”⁶⁶²

659. AFES Pet. at 22.

660. *Id.*, Ex. 7. Dr. Gómez holds a Ph.D. in English with a concentration in Latina/o literature and works as an assistant professor for the Honors College at the University of New Mexico.

661. *Id.*, Ex. 7, at 2-3.

662. AFES Reply at 22.

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AFES Contention 2 is inadmissible because it does not show a genuine dispute with the application on a material issue of law or fact. As discussed *supra*, the environmental justice analysis in an applicant's Environmental Report is guided by the NRC's Environmental Justice Policy Statement and NUREG-1748, which were issued in response to Executive Order 12898. Holtec addressed environmental justice matters to the depth recommended by NRC guidance,⁶⁶³ and neither AFES's petition nor Dr. Gómez's affidavit challenge the information in Holtec's Environmental Report. Rather, AFES Contention 2 challenges the NRC's environmental justice policy and implementing guidance documents themselves.⁶⁶⁴

AFES Contention 2 is not admitted.

3. AFES Contention 3

AFES Contention 3 states:

There is no factual support for Holtec's primary site selection criterion, which is community support.⁶⁶⁵

663. *See* ER at 3-113 (tbl. 3.8.13).

664. Because both AFES Contentions 1 and 2 are inadmissible, we need not address Holtec's motion to strike concerning these contentions. *See* [Holtec's] Motion to Strike Portions of Replies of [AFES], [Joint Petitioners], [NAC], and Sierra Club (Oct. 26, 2018) at 4-5.

665. AFES Pet. at 23.

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Acknowledging that “community support” is not a material issue to the findings that the NRC must make to license the proposed facility, AFES points the Board to Environmental Report section 2.4.2 to clarify that Holtec “has made community support a material issue” regarding the proposed site selection criterion for two reasons.⁶⁶⁶ First, AFES claims that, because Holtec has taken ELEA’s support for the proposed facility as local “community support,” Holtec has misrepresented the community support (or the lack thereof) in its application.⁶⁶⁷ AFES alleges that this makes the issue of public support material to Holtec’s application, in addition to the alleged violations by ELEA of New Mexico’s Open Meetings Act.⁶⁶⁸ Second, AFES contends that “Holtec cannot even demonstrate that the land under the site is “‘controlled’ by Holtec,”⁶⁶⁹ which AFES alleges is the “lynchpin of Holtec’s entire application.”⁶⁷⁰

AFES Contention 3 is 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. Assertion of community support or opposition in a license application does not lend any weight to the environmental justice analysis to be conducted by the

666. *Id.*

667. *Id.* at 23-24.

668. *Id.* at 24.

669. *Id.* (citing ER, rev. 0 § 2.2.1).

670. *Id.*

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applicant.⁶⁷¹ And, as discussed *supra*, an Environmental Report’s environmental justice analysis may follow NUREG-1748, Appendix C, which Holtec chose to do. Because AFES points to no other source of law that places weight on “community support” with regard to the selection of a project site, the contention fails.

Although not expressly set forth in AFES Contention 3, AFES also raises, in its supporting bases, a claim that the ELEA acquired the proposed site (which it intends to sell to Holtec) in violation of the New Mexico Open Meetings Act.⁶⁷² These claims under New Mexico law against an entity that is not seeking a license from the NRC are plainly outside the scope of this proceeding.

AFES contention 3 is not admitted.

F. NAC**1. NAC Contention 1**

NAC Contention 1 states:

The Holtec CISF license application inadequately substantiates its design basis analyses concerning normal, off-normal, and accident events, which are required to demonstrate compliance with 10 C.F.R. Part

671. See Exec. Order 12898; NRC Environmental Justice Policy Statement; NUREG-1748.

672. N.M. Stat. Ann. § 10-15-1 (1978).

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72, including Subparts E, F and G (and related acceptance criteria in NUREG 1567), as it lacks required design and safety information on the NAC canisters to be housed in the CISF UMAX casks.⁶⁷³

Because NAC has not licensed or otherwise provided its proprietary design information to Holtec,⁶⁷⁴ it alleges that Holtec cannot comply with NRC safety-related requirements, as Holtec lacks required design and safety information on any NAC canisters that would be stored in the proposed facility. In support, NAC submits the affidavit of George C. Carver, its Vice President of Engineering & Licensing.⁶⁷⁵

As explained *supra* in connection with the Board's discussion of standing, however, Holtec is not presently seeking NRC approval to store any NAC canisters. NAC Contention 1 is therefore outside the scope of this licensing proceeding.

If and when Holtec seeks NRC permission to store NAC canisters, the necessary license amendment or amendments will provide NAC with an opportunity to participate, as Holtec acknowledges.⁶⁷⁶ NAC's argument that future license amendment proceedings (if any) might

673. NAC Pet. at 10.

674. *Id.* at 4.

675. *Id.*, attach., Aff. of George C. Carver (Sept. 14, 2018).

676. Holtec Answer to NAC at 11.

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be affected in some way by the present proceeding is not persuasive.⁶⁷⁷ To speculate about the possibility of such an impact does not bring NAC's claims in Contention 1 within the scope of the present proceeding.⁶⁷⁸

NAC Contention 1 is not admitted.

2. NAC Contention 2

NAC Contention 2 states:

The Holtec CISF application omits technical information required under NRC regulations, including but not limited to 10 C.F.R. § 72.24, about the design and safety performance of NAC canisters within its UMAX casks.⁶⁷⁹

Similar to its claims in Contention 1, NAC alleges in Contention 2 that, because Holtec does not have access to NAC's proprietary information, Holtec's license application omits required technical information about the design and safety performance of NAC canisters.

⁶⁷⁷. See NAC Reply at 6-8.

⁶⁷⁸. The Board has also considered and rejected NAC's argument – first expressed in its petition and amplified in its reply – that Holtec is somehow seeking a “universal” license notwithstanding the more limited scope of its actual application. As set forth *infra*, the Board has denied as moot Holtec's motion to strike portions of NAC's reply that make this argument because we determine NAC's contentions are not admissible regardless of whether we consider its reply. See Holtec Motion to Strike at 9-10.

⁶⁷⁹. NAC Pet. at 10.

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NAC Contention 2 is not admissible for the same reason NAC Contention 1 is not admissible. Holtec is not presently seeking NRC approval to store any NAC canisters, so NAC Contention 2 is outside the scope of this proceeding.

NAC Contention 2 is not admitted.

3. NAC Contention 3

NAC Contention 3 states:

The Holtec CISF license application incorrectly omits a design alternatives analysis on the speculative grounds that the UMAX cask system is the only such system that is capable of including as contents all non-Holtec canister types.⁶⁸⁰

NAC alleges that, in its Environmental Report, Holtec incorrectly chose not to examine in detail the alternative cask designs of various competitors, including NAC. Specifically, Holtec identified but eliminated from detailed analysis design alternatives to “use the AREVA, NAC, and EnergySolutions systems.’DD’DD⁶⁸¹

Although the NRC Staff would have us deny NAC’s hearing request for failure to demonstrate standing, the Staff would otherwise not oppose the admissibility of

680. NAC Pet. at 14.

681. *Id.* (quoting ER, rev. 1 § 2.4.1).

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NAC Contention 3 “to the extent that the [Environmental Report’s] basis for eliminating these design alternatives from detailed analysis is unclear.”⁶⁸² The Board does not agree. As Holtec’s counsel stated during oral argument, “the purpose of this project is to deploy Holtec technology.”⁶⁸³ As a practical matter, it seems most unlikely that Holtec would elect in any circumstances to go forward with the project to deploy its competitors’ storage technology.

Regardless, an applicant’s Environmental Report is not required to include the type of alternatives analysis that NAC claims must be included. NAC does not allege any of the systems (including its own) that it claims Holtec should have analyzed in detail would have any lesser environmental impacts than Holtec’s own HI-STORM UMAX system. Nor is any such difference apparent, as all of these competing systems are similar – comprised of canisters contained within casks.

To be sure, NEPA requires federal agencies (and hence the NRC requires applicants’ Environmental Reports⁶⁸⁴) to take a hard look at the environmental impacts of a proposed action and of environmentally-significant alternatives. An applicant’s discussion of alternatives in its Environmental Report must be sufficiently complete to aid the NRC in complying with NEPA.⁶⁸⁵

682. NRC Staff Consol. Answer at 65.

683. Tr. at 267.

684. *See* 10 C.F.R. §§ 51.45, 51.61.

685. *Id.* § 51.45(b)(3).

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But NEPA does not require a detailed analysis of alternatives that are of no environmental significance. As stated in the Council on Environmental Quality's implementing regulations, NEPA calls for consideration of reasonable alternatives to proposed actions "that will avoid or minimize adverse effects of these actions upon the quality of the human environment"⁶⁸⁶ or that involve unresolved conflicts concerning alternative users of available resources.⁶⁸⁷ NAC has not alleged that any such environmental impacts or unresolved conflicts would be associated with Holtec's use of its competitors' storage systems rather than its own.

As the Commission has reminded us, an environmental analysis "is not intended to be 'a research document.'"⁶⁸⁸ If there are alleged omissions in the analysis, "in an NRC adjudication it is [the] Intervenor's burden to show their significance and materiality."⁶⁸⁹ NAC has not done so.

NAC Contention 3 is not admitted.

686. 40 C.F.R. § 1500.2(e).

687. *Id.* §§ 1501.2(c), 1502.1.

688. *Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc.* (Pilgrim Nuclear Power Station), CLI-10-22, 72 NRC 202, 208 (2010) (citation omitted).

689. *Exelon Generating Co., LLC* (Early Site Permit for Clinton ESP Site), CLI-05-29, 62 NRC 801, 811 (2005).

*Appendix E***V. INTERESTED GOVERNMENT PETITIONERS**

Government entities (1) City of Carlsbad, New Mexico; (2) The Eddy-Lea Energy Alliance; (3) Lea County, New Mexico; (4) City of Hobbs, New Mexico; and (5) Eddy County, New Mexico timely filed requests to participate as an interested governmental body.⁶⁹⁰ The NRC Staff stated that it “does not object to the participation of any of these governmental bodies . . . if a hearing is granted.”⁶⁹¹ Neither Holtec nor any other petitioner has raised an objection.

Pursuant to 10 C.F.R. § 2.315(c), a local governmental body that is not admitted as a party under section 2.309 shall, upon request, be permitted a reasonable opportunity to participate in a hearing as an interested non-party. Section 2.315(c) does not require a demonstration of standing, but does require identification of those contentions on which the non-party intends to participate.⁶⁹²

As the Board denies all the petitioners’ requests for a hearing, the motions of the City of Carlsbad, New Mexico; Eddy-Lea Energy Alliance; Lea County, New Mexico; City of Hobbs, New Mexico; and Eddy County, New Mexico are accordingly denied as moot.

690. *See* ELEA Pet.; Lea Cty. Pet.; Carlsbad Pet.; Hobbs Pet.; Eddy Cty. Pet.

691. NRC Staff Consol. Answer at 3-4 n.11.

692. 10 C.F.R. § 2.315(c).

*Appendix E***VI. RULING ON PETITIONS**

Although Beyond Nuclear, Sierra Club, and Fasken have demonstrated standing in accordance with 10 C.F.R. § 2.309(d), no petitioner has proffered an admissible contention meeting the requirements of 10 C.F.R. § 2.309(f)(1). Therefore, in accordance with 10 C.F.R. § 2.309(a), the Board denies the requests for hearing and petitions for leave to intervene submitted by Beyond Nuclear, Sierra Club, Joint Petitioners, Fasken, AFES, and NAC.

VII. ORDER

For the foregoing reasons:

- A. Beyond Nuclear's petition is *denied*. Beyond Nuclear's contention is *not admitted*.
- B. Sierra Club's petition is *denied*. Sierra Club's contentions are *not admitted*.
- C. Joint Petitioners' petition is *denied*. Joint Petitioners' contentions are *not admitted*.
- D. Fasken's petition is *denied*. Fasken's contention is *not admitted*.
- E. AFES's petition is *denied*. AFES's contentions are *not admitted*.

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- F. NAC's petition is *denied*. NAC's contentions are *not admitted*.
- G. The petitions of City of Carlsbad, Eddy-Lea Energy Alliance, Lea County, City of Hobbs, and Eddy County to participate as local interested government bodies are *denied* as moot.
- H. Holtec's October 26, 2018 motion to strike is *denied* as moot.⁶⁹³
- I. Holtec's November 8, 2018 Motion for Leave to Reply to Alliance Response is *denied* as moot.⁶⁹⁴
- J. Fasken's December 10, 2018 motion to file a supplemental declaration is *granted*.⁶⁹⁵
- K. Joint Petitioners' and Sierra Club's January 11, 2019 motions to adopt each other's contentions are *denied* as moot.⁶⁹⁶

693. Holtec Motion to Strike.

694. [Holtec's] Motion for Leave to Reply to [AFES'] Response to [Holtec's] Motion to Strike (Nov. 8, 2018).

695. Motion for Permission to File Supplemental Standing Declaration of Tommy E. Taylor (Dec. 10, 2018).

696. Sierra Club's Motion to Adopt the Contentions of [Joint Petitioners] (Jan. 11, 2019); Motion of [Joint Petitioners] to Adopt and Litigate Sierra Club Contentions (Jan. 11, 2019).

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- L. Sierra Club's and Joint Petitioners' joint motion for a subpart G hearing is *denied* as moot.⁶⁹⁷
- M. Sierra Club's January 17, 2019 motion to late-file new Contention 26 is *granted*.⁶⁹⁸
- N. Joint Petitioners' January 17, 2019 motion to late-file new Contention 14 is *granted*.⁶⁹⁹
- O. Sierra Club's February 6, 2019 motion to amend its Contention 1 is *granted*.⁷⁰⁰
- P. Beyond Nuclear and Fasken's February 6, 2019 motion to amend Beyond Nuclear's contention is *granted*.⁷⁰¹
- Q. Joint Petitioners' February 6, 2019 motion to amend their Contention 2 is *granted*.⁷⁰²

697. Joint Motion to Establish Hearing Procedures by Sierra Club, [Joint Petitioners] (Jan. 3, 2019).

698. Sierra Club's Motion to File a New Late-Filed Contention (Jan. 17, 2019).

699. Motion by [Joint Petitioners] for Leave to File a New Contention (Jan. 17, 2019).

700. Sierra Club's Motion to Amend Contention 1 (Feb. 6, 2019).

701. Motion by Petitioners Beyond Nuclear and Fasken to Amend Their Contentions Regarding Federal Ownership of Spent Fuel to Address Holtec International's Revised License Application (Feb. 6, 2019).

702. 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).

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- R. Sierra Club’s February 18, 2019 motion to amend its Contention 16 is *denied*.⁷⁰³
- S. Joint Petitioners’ February 18, 2019 motion to amend their Contentions 4 and 7 is *denied*.⁷⁰⁴
- T. Joint Petitioners February 25, 2019 motion to amend their Contention 2 is *denied*.⁷⁰⁵
- U. Sierra Club’s February 25, 2019 motion to file new late-filed Contentions 27, 28, and 29 is *denied*.⁷⁰⁶
- V. This proceeding is *terminated*.

Any appeal of this decision to the Commission shall be filed in conformity with 10 C.F.R. § 2.311.

703. Sierra Club’s Motion to Amend Contention 16 (Feb. 18, 2019).

704. Motion of [Joint Petitioners] to Amend Their Contentions 4 and 7 Regarding Holtec’s Decision to Have No Dry Transfer System Capability and Holtec’s Policy of Returning Leaking, Externally Contaminated or Defective Casks and/or Canisters to Originating Reactor Sites (Feb. 18, 2019).

705. Motion of [Joint Petitioners] to Amend Their Contention 2 Regarding Holtec’s Proposed Means of Financing the Proposed Consolidated Interim Storage Facility (Feb. 25, 2019).

706. Sierra Club Additional Contentions.

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It is so ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD

Paul S. Ryerson, Chairman
ADMINISTRATIVE JUDGE

Nicholas G. Trikouros
ADMINISTRATIVE JUDGE

Dr. Gary S. Arnold
ADMINISTRATIVE JUDGE

Rockville, Maryland
May 7, 2019