

United States Court of Appeals
FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued March 5, 2024

Decided August 27, 2024

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

Diane Curran argued the cause for petitioner Beyond
Nuclear. With her on the briefs was *Mindy Goldstein*.

Wallace L. Taylor argued the cause for petitioners Don't Waste Michigan and Sierra Club. With him on the briefs was *Terry J. Lodge*.

Allan Kanner argued the cause and filed the briefs for petitioner Fasken Land and Minerals, Ltd. and Permian Basin Land and Royalty Owners.

Christopher B. Mosley was on the brief for *amicus curiae* the City of Fort Worth in support of petitioners.

Raúl Torrez, Attorney General, Office of the Attorney General for the State of New Mexico, *William Grantham*, Assistant Attorney General, and *Lindsay A. Lovejoy, Jr.* were on the brief for *amicus curiae* the State of New Mexico in support of petitioners.

Andrew P. Averbach, Solicitor, U.S. Nuclear Regulatory Commission, argued the cause for federal respondents. With him on the brief were *Todd Kim*, Assistant Attorney General, U.S. Department of Justice, and *Justin D. Heminger*, Senior Litigation Counsel, Environment and Natural Resources Division.

Paul D. Clement argued the cause for *amicus curiae* Nuclear Energy Institute, Inc. in support of respondents. With him on the brief were *Ellen C. Ginsberg* and *Jonathan M. Rund*.

Anne Leidich argued the cause for intervenor Holtec International in support of respondents. With her on the brief was *Jay E. Silberg*. *Timothy J.V. Walsh* entered an appearance.

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

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

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 (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. 10, § 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)).

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

Beyond Nuclear, Environmental Petitioners, and Fasken each petitioned for review of the orders denying intervention, which we consolidated for review. Holtec intervened in support

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).

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 (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 establish that they are “aggrieved” by the Commission’s orders. *Matson Nav. Co. v. Dep’t of Transp.*, 77 F.4th 1151, 1157 (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*

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 (D.C. Cir. 2004) (per curiam).

also *Pub. Serv. Comm'n of N.Y. v. Fed. Power Comm'n*, 284 F.2d 200, 204 (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 (1992). Under our caselaw, this suffices to demonstrate standing.⁴ Cf. *Nuclear Info. & Res. Serv. v. NRC*, 509 F.3d 562, 567 (D.C. Cir. 2007) (holding petitioners living near a proposed uranium enrichment facility alleging a risk of injury from radiation had standing to challenge a license issuance). Because petitioners are parties aggrieved by the denial of intervention, we have jurisdiction.⁵

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 (D.C. Cir. 2004).

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 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 (2005); see also 13B

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 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

CHARLES ALAN WRIGHT ET AL., FEDERAL PRACTICE & PROCEDURE § 3533.2.1 & n.22, Westlaw (database updated June 2024).

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 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.

⁶ DOE has previously indicated "that it had no authority under the NWPAs to provide interim storage in the absence of a facility that has been authorized, constructed and licensed in accordance with the NWPAs." *Indiana Michigan Power Co. v. Dep't of Energy*, 88 F.3d 1272, 1274 (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 (D.C. Cir. 2022).

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 (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 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.

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. United States, 684 F.3d 149, 156–57, 159 (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.

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.

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.

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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 (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).

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 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 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 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 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 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 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 (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

* * *

In sum, Environmental Petitioners fail to demonstrate the Commission acted arbitrarily, capriciously, or contrary to law

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.

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). 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

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 (D.C. Cir. 2013).

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.