No. 21-60743

In the United States Court of Appeals for the Fifth Circuit

STATE OF TEXAS; GREG ABBOTT, GOVERNOR OF THE STATE OF TEXAS; TEXAS COMMISSION ON ENVIRONMENTAL QUALITY; FASKEN LAND AND MINERALS, LIMITED; PERMIAN BASIN LAND AND ROYALTY OWNERS,

Petitioners,

 ν .

Nuclear Regulatory Commission; United States of America,

Respondents.

On Petition for Review of Action by the Nuclear Regulatory Commission

BRIEF FOR STATE PETITIONERS

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CERTIFICATE OF INTERESTED PERSONS

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STATE OF TEXAS; GREG ABBOTT, GOVERNOR OF THE STATE OF TEXAS; TEXAS COMMISSION ON ENVIRONMENTAL QUALITY; FASKEN LAND AND MINERALS, LIMITED; PERMIAN BASIN LAND AND ROYALTY OWNERS,

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Under the fourth sentence of Fifth Circuit Rule 28.2.1, petitioners, as governmental parties, need not furnish a certificate of interested persons.

/s/ Michael R. Abrams

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STATEMENT REGARDING ORAL ARGUMENT

This case merits oral argument. The Nuclear Regulatory Commission has approved a license for a private facility to store deadly radioactive waste in the Permian Basin Region in West Texas. The license would allow hazardous nuclear material to flow into Texas for decades (and perhaps permanently) from waste sites across the country. Congress has never authorized the Commission to license a private waste facility like the one it approved in the agency proceedings below.

This matter carries significant consequences for the State of Texas. It will affect the State's economy, environment, and citizenry. In light of those interests, the interplay of multiple federal laws governing nuclear waste, and the decades-long backstory of the country's efforts to store that waste safely and efficiently, oral argument is likely to aid the Court in its decisional process.

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Introduction

Over thirty years ago, Congress declared that the federal government must permanently store America's growing stockpile of spent nuclear fuel and high-level radioactive waste deep in an underground repository. Multiple courts have recognized the government's "unconditional obligation to take the nuclear materials." *E.g.*, *N. States Power Co. v. DOE*, 128 F.3d 754, 757 (D.C. Cir. 1997); *Ind. Mich. Power Co. v. DOE*, 88 F.3d 1272, 1276 (D.C. Cir. 1996) (finding that Congress directed the Secretary of Energy to accept nuclear waste by January 31, 1998 "without qualification or condition"). But the federal government has committed a "massive breach" of that obligation. *Ala. Power Co. v. DOE*, 307 F.3d 1300, 1302 (11th Cir. 2002). There has been no progress toward the actual construction of a permanent repository. *See New York v. NRC*, 824 F.3d 1012, 1015 (D.C. Cir. 2016).

The Nuclear Regulatory Commission, which Congress tasked with ensuring the safe use of radioactive materials, has reacted to the consequences of that breach by undertaking a risky, wholly unauthorized approach: issuing a license to allow a private entity to take possession of nuclear waste and transport it from numerous locations across the entire country to an above-ground storage site in Texas, far from the reactor sites where the waste was generated. The Commission claims that the license is only "interim." But the license was issued for a forty-year term, is renewable, and is unaccompanied by any plan to eventually transfer the waste to the permanent repository. If the Commission's plan proceeds, the odds are that this waste will be stored forever in the State of Texas.

The Commission acted unlawfully. Congress established that an underground permanent repository in Yucca Mountain in Nevada should be the solution to the Nation's nuclear waste problem. Recognizing that some interim storage might be necessary before that repository is online, Congress also authorized some limited stop-gap measures. But Congress did not grant the Commission authority to license a private "interim" storage facility for nuclear waste, much less one in a random location in Texas thousands of miles from where the materials were generated. "At this point"—just like many times before—the Commission "is simply defying a law enacted by Congress, and the Commission is doing so without any legal basis." *In re Aiken County*, 725 F.3d 255, 266 (D.C. Cir. 2013).

The Commission's decision was also arbitrary and capricious. Congress has instructed that all of the Commission's licensing decisions must prioritize safety and the environment. The Commission failed to comply with that directive. All of the nuclear waste that will be transported to this new facility in Texas is *already* being stored at the site of generation under licenses that ensure safety and environmental protection. The Commission nevertheless decided that the waste should be moved to Texas and consolidated in a new facility so that the existing facilities can be shut down and their land restored to non-nuclear uses. That is a goal the Commission has no authority to pursue. And it flouts Congress's instruction that transportation of the nuclear waste must be kept to a bare minimum.

Finally, the Commission's license issuance violated the National Environmental Policy Act (NEPA). Under NEPA and its implementing regulations, the Commission was required to address a host of environmental impacts that may result from

its license issuance, including the potential impact of a terrorist attack on the facility. It failed to do so.

The question of what to do with nuclear waste in the wake of the Commission's failure to license a permanent repository is a difficult one. But difficult and even intractable problems do not give an agency a blue pencil to rewrite its governing statute. Because the Commission has done so here, the license should be set aside.

STATEMENT OF JURISDICTION

Under the Hobbs Act, the courts of appeals have "exclusive jurisdiction" to enjoin, set aside, suspend, or determine the validity of "final orders" of the Commission. 28 U.S.C. § 2342(4).¹ The State of Texas, Governor Greg Abbott, and the Texas Commission on Environmental Quality (TCEQ) seek judicial review of the Commission's final order issuing a license to Interim Storage Partners, LLC (ISP) to store nuclear waste at a storage facility in Andrews County, Texas. *See* C.I. No. 130 (Materials License for ISP).²

The Hobbs Act provides that "[a]ny party aggrieved by the final order may, within 60 days after its entry, file a petition to review the order in the court of appeals

¹ Although the Hobbs Act refers to final orders of the "Atomic Energy Commission," the Energy Reorganization Act of 1974 abolished the Atomic Energy Commission and transferred all licensing and related regulatory functions to its successor, the Nuclear Regulatory Commission. 42 U.S.C. § 5841(a), (f).

² "C.I." refers to the revised certified index of record contents that the Commission filed on December 6, 2021. *See* Fed. R. App. P. 17(b)(1)(B). In accordance with Fifth Circuit Rule 30.2(a), the State will file an appendix containing the portions of the record cited in its and the other parties' briefs.

wherein venue lies." 28 U.S.C. § 2344. The State filed its petition for review in this Court on September 23, 2021. The petition is thus timely. Venue is appropriate here because it is the judicial circuit in which "the petitioner[s] reside[]" and have their principal offices. *Id.* § 2343. And the State is a "party aggrieved" because it objects to the storage of the Nation's nuclear waste within state borders, and also because the State and its officials "participated in the agency proceeding under review." *Wales Transp., Inc. v. ICC*, 728 F.2d 774, 776 n.1 (5th Cir. 1984); *see also* Texas Resp. to Mot. to Dismiss 5-9 (explaining the State's participation in the underlying agency proceedings).

ISSUES PRESENTED

Congress gave the Executive Branch a mandate to build a permanent repository for spent nuclear fuel and other radioactive waste in Yucca Mountain. The federal government has failed to license and build that repository. Instead, the Nuclear Regulatory Commission has now licensed an "interim" storage facility for those waste materials, on the premise that the waste will eventually be transferred to the permanent repository at Yucca Mountain. The questions presented are:

- 1. Whether any federal statute authorizes the Commission to issue a license to a private facility to store spent nuclear fuel away from the reactor site where it was generated.
- 2. Whether the Commission properly took account of the statutory factors that it is directed to consider when issuing a license for a nuclear facility.

3. Whether the Commission violated its NEPA obligations by refusing to consider the potential that the licensed facility will be the target of a terrorist attack.

STATEMENT OF THE CASE

I. Statutory Framework and Historical Backdrop

Commercial nuclear energy generates nuclear waste through a process known as the "nuclear fuel cycle," which is the series of industrial processes used to produce electricity from uranium in a nuclear reactor. *See* Blue Ribbon Comm'n on Am.'s Nuclear Future, *Report to the Secretary of Energy* 9 (2012), https://tinyurl.com/2p8k2rzr (last visited Feb. 7, 2022). That cycle has an initial stage, in which uranium is mined and processed into fuel for use in a nuclear reactor, a second stage in which the fuel is used in a reactor, and a "back end" stage in which spent fuel is first stored and ultimately sent for disposal or reprocessing. *Id.* Spent nuclear fuel is highly dangerous and is so hot that it must initially be stored in deep pools for years before it can be transferred to dry cask containers for transportation and storage. *Id.* at 10-11.

In 1954, Congress passed the Atomic Energy Act, which declared a federal policy that "the development, use, and control of atomic energy shall be directed so as to promote world peace, improve the general welfare, increase the standard of living, and strengthen free competition in private enterprise." 42 U.S.C. § 2011(b). The Atomic Energy Act granted regulatory authority over nuclear energy to the Atomic

Energy Commission. In 1974, however, Congress disbanded that agency and redistributed its former authority to the Nuclear Regulatory Commission and a predecessor to the Department of Energy. Under that distribution, the Nuclear Regulatory Commission "retains jurisdiction over nuclear plant licensing and regulation," while the Department of Energy is in charge of "energy research and development." *See County of Rockland v. NRC*, 709 F.2d 766, 769 n.2 (2d Cir. 1983).

In the decades after the Atomic Energy Act's passage, the civilian development of nuclear energy boomed. And for decades most stakeholders were not concerned about disposal of the spent nuclear fuel that was used in this nuclear energy boom. That is because "[p]rior to the late 1970's . . . it was accepted that spent fuel would be reprocessed" and so did not need to be disposed. Idaho v. DOE, 945 F.2d 295, 298-99 (9th Cir. 1991). And nuclear power plants were built with storage capacity to handle spent nuclear fuel before reprocessing. NRC, Spent Fuel Storage: Intent to Prepare Generic Environmental Impact Statement on Handling and Storage of Spent Light Water Power Reactor Fuel, 40 Fed. Reg. 42,801, 42,801 (Sept. 16, 1975). But in the "mid-70's" the entire reprocessing concept "collapsed" for technological and political reasons. *Idaho*, 945 F.2d at 298-99. Suddenly, spent nuclear fuel became a real problem. Id. With the reprocessing option off the table, spent nuclear fuel would instead have to be stored long-term. But spent nuclear fuel remains radioactive and must be stored "for time spans seemingly beyond human comprehension." New York v. NRC, 681 F.3d 471, 474 (D.C. Cir. 2012).

In 1978, the Commission recognized the growing spent nuclear fuel storage problem and proposed a brand new, extra-statutory method to deal with it. The

Commission recognized that spent nuclear fuel was already being stored at the site of nuclear reactors, and that these on-site facilities could be expanded with "negligible" impacts to the environment. See NRC, NUREG-0404, Generic Environmental Impact Statement on Handling and Storage of Spent Light Water Power Reactor Fuel at ES-5 (Mar. 1978).³ But the Commission concluded that it would be beneficial to also store spent nuclear fuel "at installations built specifically for this [storage] that are not coupled to either a nuclear power plant or a fuel reprocessing plant." NRC, Proposed Rule, Storage of Spent Fuel in an Independent Spent Fuel Storage Installation, 43 Fed. Reg. 46,309, 46,309 (Oct. 6, 1978). At that time, there was no "definitive regulatory base" for this independent storage facility concept. See NUREG-0404 at ES-9. Nevertheless, two years later, the Commission promulgated a final rule purporting to codify the availability of this extra-statutory method. See NRC, Final Rule, Licensing Requirements for the Storage of Spent Fuel in an Independent Spent Fuel Storage Installation, 45 Fed. Reg. 74,693 (Nov. 12, 1980).

Stakeholders, however, expressed grave concerns with the new rule. Some thought the waste should remain at the reactors where it was already housed in order to avoid "transportation risks" from moving such dangerous material. *Id.* at 74,696. Others "expressed a concern that the promulgation of a rule covering" this issue "would decrease pressures on both industry and government to solve the radioactive waste problem." *Id.* at 74,693. The Commission did not explain how the provisions

³ This document does not appear to be available online and was not included in the Commission's administrative record. Texas will include a copy of the document in the appendix it files pursuant to Fifth Circuit Rule 30.2(a).

in the Atomic Energy Act or any other Act of Congress had authorized this rulemaking. No parties challenged the rule.

To the extent that the relevant statutes had left any void, Congress quickly filled it. In 1982, Congress enacted the Nuclear Waste Policy Act to comprehensively deal with the nation's spent nuclear fuel problem. Congress concluded that "Federal efforts during the past 30 years to devise a permanent solution to the problems of civilian radioactive waste disposal have not been adequate" and that "State and public participation in the planning and development of repositories is essential in order to promote public confidence in the safety of disposal of such waste and spent fuel." 42 U.S.C. § 10131(a)(3), (6). The Act tasked the Department of Energy with establishing a suitable location for a permanent geologic repository to indefinitely dispose of high-level radioactive waste and spent nuclear fuel deep below the Earth's surface. *Id.* § 10132. And the Act made the Commission responsible for licensing the repository, ensuring that it is safe and environmentally benign. *Id.* § 10134.

Congress amended the Act in 1987 to direct the Department of Energy to consider Yucca Mountain in Nevada as the primary site for the Nation's first permanent geologic repository, *id.* § 10134, and to prohibit the Department of Energy from evaluating other sites for a permanent repository, *id.* § 10172(a). The Nuclear Waste Policy Act also provided limited measures to deal with spent nuclear fuel in addition to the permanent repository. First, spent nuclear fuel could be stored temporarily at an already existing *federal* facility if necessary to avoid a commercial reactor shut-down; and second, spent nuclear fuel could be stored on an interim basis at a federal facility

for so-called "monitored retrievable storage." *See id.* §§ 10131-10145 (Part A, permanent repository); *id.* §§ 10151-10157 (Part B, temporary storage); *id.* §§ 10161-10169 (Part C, monitored retrievable storage facility). Even though Congress provided these limited options, development of the permanent repository at Yucca Mountain is the paramount goal: "The statute is obviously designed to prevent the Department from delaying the construction of Yucca Mountain as the permanent facility while using temporary facilities." *NARUC v. DOE*, 736 F.3d 517, 519 (D.C. Cir. 2013); 42 U.S.C. § 10168(d)(1) (Commission may not license a "monitored retrievable storage facility until the Commission has issued a license for the construction of [the permanent] repository").

Congress recognized that these facilities could impose substantial burdens on States and local governments. To alleviate those burdens, affected local governments and communities were given: (a) detailed participation rights (including participation in siting decisions and consultation on a wide range of impacts); (b) generous procedural rights, including the right to veto the facility (subject to override by majority vote of both Houses of Congress); and (3) rights to substantial financial assistance if a facility was built within its borders. *See* 42 U.S.C. §§ 10136, 10155(d), 10156(e), 10166, 10169.

Unfortunately, progress towards completion—and even initial construction—of the permanent facility at Yucca Mountain has been halting. Congress directed the Department of Energy to accept waste from the States by January 31, 1998, *id*. § 10222(a)(5)(B), but "by the mid-1990s, the Department of Energy made clear that

it could not meet the 1998 deadline, and it came and went without the federal government accepting any waste." *Texas v. United States*, 891 F.3d 553, 555-56 (5th Cir. 2018).

In 2008, after much delay, the Department of Energy eventually pursued the Yucca Mountain site and submitted a license application to the Commission. *Id.* at 556. But the Commission, "by its own admission," refused to follow the statutory instruction to evaluate that application and said it "has no current intention of complying with the law." In re Aiken County, 725 F.3d at 258. That led to the D.C. Circuit ordering the Commission to "promptly continue with the legally mandated licensing process." Id. at 267. Regrettably, that licensing process has stalled. Texas v. United States, 891 F.3d at 557. The problem is now politically fraught. Although the statute has not been amended to displace Yucca Mountain as the preferred solution, the Biden Administration has announced that it "opposes the use of Yucca Mountain for the storage of nuclear waste." See Nuclear Newswire, Energy Secretary Nominee Comments on Granholm Yucca Mountain (Jan. 28, 2021), nyurl.com/3s93herx (last visited Feb. 7, 2022). No other Congressionally authorized solution has come to fruition.

II. ISP's Application and License for a "Consolidated Interim Storage Facility"

On April 28, 2016, ISP applied for a license to operate a "consolidated interim storage facility." ISP's license application for a "consolidated interim storage facility" would allow ISP to store up to 40,000 metrics tons of spent nuclear fuel and Greater-Than-Class-C waste on the Earth's surface at the facility in dry cask storage

systems in Andrews County, Texas. C.I. No. 5 (initial ISP application). The license would be valid for 40 years. *See id.* ISP has indicated that it may seek to renew the license for an additional 20 years. *See* C.I. No. 1148.

Many stakeholders, including the State of Texas, objected to the issuance of the license. In addition to the plain statutory problems discussed *infra* at 14-22, the Governor submitted a comment letter to the Commission addressing site-specific problems with the ISP facility. Specifically, prior to the issuance of the license, the Governor explained that Andrews County lies within the Permian Basin Region, which has surpassed Saudi Arabia's Ghawar Field as the largest producing oilfield in the world. C.I. No. 1128 (Letter from Texas Governor Greg Abbott ("Abbott Letter")). The Governor objected that (1) the Commission failed to take into account the risk of terrorist attacks on the facility in light of its unique geographic vulnerabilities, and (2) the Commission did not consider any contingency for the spent nuclear fuel if a permanent repository is not ready when ISP's license expires. *Id.* The Governor also explained that under NEPA, the Commission has an obligation to consider the environmental effects of a terrorist attack on the proposed ISP facility but that the Commission failed to do so. *Id.*

TCEQ separately objected to the "unprecedented implications" of the license and the "significant unease" it created with the public. C.I. No. 1148. Like the Governor, TCEQ noted that "the U.S. Department of Energy has been unsuccessful in developing a permanent geologic repository," and thus, TCEQ expressed concern that a consolidated interim storage facility in Texas "will become the permanent solution for dispositioning the nation's spent nuclear fuel." *Id*.

On September 13, 2021, over a substantial number of objections from a wide range of businesses, States, and environmental interest groups, the Commission issued the license for ISP's proposed facility. *See* Materials License for ISP. The State of Texas, the Governor, and TCEQ have challenged the issuance of the ISP license and asked this Court to hold unlawful and set aside the order and vacate the license.⁴ ISP has intervened in these proceedings in support of the license.

After the State, the Governor, and TCEQ filed their petition for review, the Commission sought dismissal of the petition, asserting that the State had not "participated" in the case because the State had not sought to intervene in the underlying agency proceedings. The State responded that it had meaningfully participated in the agency proceedings through the detailed comment letters it timely submitted for the Commission's consideration. The State also noted that even if the Commission were correct that the State was required to comply with the Commission's rules in order to invoke this Court's jurisdiction, circuit precedent eliminates any such requirement "if the agency action is 'attacked as exceeding the power of the Commission." Am. Trucking Ass'ns, Inc. v. ICC, 673 F.2d 82, 85 n.4 (5th Cir. 1982) (per curiam). The State explained that the petition for review falls within that exception

⁴ The Texas Legislature has also passed legislation, which the Governor signed, that bans high-level radioactive waste from entering Texas except in limited circumstances not met here. *See* Act of Sept. 2, 2021, 87th Leg., 2d C.S., ch. 2, 2021 Tex. Sess. Law Serv. 3813.

because the State intends to challenge the Commission's authority to issue the license. The Court carried that motion with the case and instituted a briefing schedule on the merits of the State's petition.⁵

SUMMARY OF THE ARGUMENT

I. The Commission lacks authority to license the ISP facility. The Atomic Energy Act does not authorize the storage or disposal of spent nuclear fuel away from the site where the fuel was generated. And subsequent Congressional enactments, including the Nuclear Waste Policy Act, make clear that the federal government must take steps to develop the Yucca Mountain permanent repository site *before* turning to other locations to store spent nuclear fuel, and those other locations must *not* be private. Those enactments also provide substantial protections for States that the Commission was not free to discard. The interlocking provisions of these statutes preclude the Commission from issuing a license to a private entity to operate an away-from-reactor spent nuclear fuel storage site.

But even if the Commission did have the authority to temporarily license a private away-from-reactor site, the Commission does not contend that it has any au-

⁵ The Commission also referred the Court to several petitions for review that were filed in the D.C. Circuit related to the Commission proceedings and that were subsequently consolidated. Those petitions were filed *before* the Commission's final order of September 13, 2021, and sought review of interlocutory orders that preceded issuance of the license. *See* State Resp. to Mot. to Dismiss or Transfer at 3-4 (explaining procedural history of D.C. Circuit proceedings). On the court's own motion, the briefing schedule in those consolidated cases has been suspended. Order, *Don't Waste Michigan v. NRC*, No. 21-1048 (D.C. Cir. Jan. 11, 2022).

thority to issue a *permanent* storage license, recognizing that any permanent repository must be located in Yucca Mountain. The "interim" ISP facility is almost certain to become a *de facto* permanent facility because of the federal government's longstanding failure to find a suitable permanent facility. The Commission's actions are thus an impermissible end-run around a longstanding Congressional directive.

II. The Commission's issuance of the license was also arbitrary and capricious in violation of the Administrative Procedure Act. The Commission's rationale for the license is that a consolidated facility in Texas will allow for the land at decommissioned nuclear reactor sites to be restored to non-nuclear uses. But that is an extra-statutory goal that Congress never directed the Commission to pursue. Worse, the Commission elevated this extra-statutory goal while ignoring an explicit statutory instruction—to minimize transport of spent nuclear fuel. And even if the Commission could legitimately pursue its preferred goal, its rationale is arbitrary on the record's facts.

III. Finally, by failing to adequately consider the potential for terrorist activities, the Commission violated NEPA. As the Governor explained in his comment letter, the ISP facility would be a uniquely provocative target. The probability of a terrorist attack is higher at the ISP facility than at a generic reactor site because the consequences are graver when a terrorist can disrupt the country's energy supply with a major radioactive release. In light of those considerations, the Commission was obligated to specifically grapple with the environmental risks posed by a terrorist attack on the ISP facility, which is located in the biggest oil-producing region in the

world. The Commission did not do so and thereby transgressed its obligations under NEPA.

ARGUMENT

I. The Commission Lacks the Statutory Authority to License a "Consolidated Interim Storage Facility."

A. The Atomic Energy Act does not authorize the ISP license.

No language in the Atomic Energy Act grants the Commission the power to license private, away-from-reactor storage facilities for spent nuclear fuel. The power that the Commission has arrogated to itself is significant: the ISP facility will invariably affect Texas's economy, its environment, and its susceptibility to terrorist threats. Its presence will require Texas to invest significant resources to ensure that the facility does not operate to the detriment of the State or her citizens. And it will require state officials to plan for contingencies that they otherwise would not have to consider. For instance, a rail accident or derailment during the spent nuclear fuel's transport into Texas would, even absent a radiological release, drain significant resources and logistics and "would severely disrupt the transportation of oilfield and agricultural commodities, to the detriment of the entire country." Abbott Letter at 3.

"[A]n agency literally has no power to act . . . unless and until Congress confers power upon it." *La. Pub. Serv. Comm'n v. FCC*, 476 U.S. 355, 374 (1986). And the courts "expect Congress to speak clearly when authorizing an agency to exercise powers of 'vast economic and political significance'" and to use "exceedingly clear language if it wishes to significantly alter the balance between federal and state

power." Ala. Ass'n of Realtors v. HHS, 141 S. Ct. 2485, 2489 (2021) (per curiam) (quotation omitted). The question of how to resolve the nation's spent nuclear fuel storage problem is such a question, see 42 U.S.C. § 10131(a)(7) (Congress recognizing this is a "major subject[] of public concern"); and it is one that uniquely implicates the States and their sovereignty, id. § 10131(a)(6) (recognizing "State... participation... is essential"). But the Atomic Energy Act did not grant the Commission this authority, much less do so "clearly."

The Atomic Energy Act, upon which the Commission relies for its authority to issue the license, e.g., C.I. No. 130 (referencing the Atomic Energy Act in the Materials License), "does not specifically refer to the storage or disposal of spent nuclear fuel." Bullcreek v. NRC, 359 F.3d 536, 538 (D.C. Cir. 2004). Indeed, specific features of the Act foreclose the authority the Commission asserts. In order to handle nuclear materials, private persons must generally obtain "a license issued by the Commission pursuant to" specific sections of the Atomic Energy Act. 42 U.S.C. § 2131 (cross-referencing id. §§ 2133-2134). Those sections, and other portions of the Act, specifically refer to the types of "facilities" licenses that the Commission may grant. It may grant a license to operate "utilization" or "production" facilities. Id. § 2132. These are carefully defined terms that do not contemplate a stand-alone facility, away from a nuclear reactor, that will simply store spent nuclear fuel. See 42 U.S.C. § 2014(v), (cc). And there is no authority to license a facility for that purpose. That

may explain why, for the first several decades of the Act's operation, spent nuclear fuel was stored at the place it was generated. *See* 43 Fed. Reg. at 46,309.⁶

The Commission shifted course in its 1980 regulations, see supra at 6-7, not because of any legislative change, but because it thought the facts on the ground warranted something new, and that it would be beneficial to store spent nuclear fuel at facilities far away from the reactor where the fuel was processed, even if that meant long-scale transport of this hazardous material. 45 Fed. Reg. at 74,693, 74,696, 74,698. Nothing in the Atomic Energy Act authorized the Commission's dramatic expansion of its own power. Instead, the Commission seized authority to license this kind of facility based on a self-assessed "need" for the facilities. 43 Fed. Reg. at 46,309. But that is not a valid exercise of administrative agency power. See, e.g., Util. Air Regul. Grp. v. EPA, 573 U.S. 302, 328 (2014) ("We reaffirm the core administrative-law principle that an agency may not rewrite clear statutory terms to suit its own sense of how the statute should operate."); Gulf Fishermens Ass'n v. Nat'l Marine Fisheries Serv., 968 F.3d 454, 460 (5th Cir. 2020) (organic statute "sa[id] nothing about" the power the agency claimed to have, and this Court rejected the argument that this left a "gap" for the agency to lawfully fill); Texas v. United States, 809 F.3d

⁶ Of course, the Commission was authorized to make sure that spent nuclear fuel being stored at reactor sites was being stored *safely*. Congress gave it authority to "establish by rule, regulation, or order, such standards and instructions to govern the possession and use" of all types of nuclear material to "protect health or to minimize danger to life or property." 42 U.S.C. § 2201. But the power to promulgate "standards and instructions" for *existing* facilities cannot plausibly be read as authority to license an extra-statutory type of facility.

134, 186 (5th Cir. 2015) (rejecting argument that "congressional silence has conferred on [agency] the power to act").

B. The Nuclear Waste Policy Act explicitly precludes authority for the ISP license.

No statutory authority empowered the Commission to promulgate those regulations in 1980 authorizing stand-alone, private, spent nuclear fuel storage facilities away from a nuclear reactor. But to the extent the statutory question was unclear at that time, the Nuclear Waste Policy Act of 1982 settled it in terms that squarely foreclose what the Commission has done.

In the Nuclear Waste Policy Act, Congress addressed in unusually comprehensive and explicit terms the problem of spent nuclear fuel and the options it was authorizing for storage and disposal. Congress left no room for privately run "interim" storage facilities located away from the reactor where the fuel was processed. Specifically, Congress said that "the *Federal Government* has the responsibility to provide for the permanent disposal of . . . spent nuclear fuel." 42 U.S.C. § 10131(a)(4) (emphasis added). Before that can be done, "the persons owning and operating civilian nuclear power reactors have the primary responsibility for providing *interim* storage of spent nuclear fuel" by using "existing storage facilities at the site of each civilian nuclear power reactor, and by adding new *onsite* storage capacity in a timely manner where practical." *Id.* § 10151(a)(1) (emphases added). There are also stopgaps: the federal government can help "add[]" "new storage capacity at the site of each civilian nuclear power reactor," and, for a brief period, could even accept a lim-

ited amount of spent nuclear fuel at *its own* facilities, if civilian nuclear reactors desperately needed that help. *Id.* § 10151(a)(2), (3) (emphasis added). But there is no authority to license a private facility to store nuclear fuel away from the reactor where the fuel was processed.

If that were unclear, Congress added explicit language confirming that the Commission cannot use private, away-from-reactor storage locations to solve the Nation's spent nuclear fuel problem. The Nuclear Waste Policy Act provides that "[n]otwithstanding any other provision of law, nothing in [that Act] shall be construed to encourage, authorize, or require the private or Federal use . . . of any storage facility located away from the site of any civilian nuclear power reactor and not owned by the Federal Government on" the date of enactment. *Id.* § 10155(h). The upshot of this language is plain: The Commission cannot "authorize" *any* "private" "storage facility located away from the site of any civilian nuclear power reactor." *Id.* That should be the end of the matter. *See, e.g., Chamber of Com. of U.S. v. Dep't of Labor*, 885 F.3d 360, 369 (5th Cir. 2018) ("Where the text and structure of a statute unambiguously foreclose an agency's statutory interpretation, the intent of Congress is clear, and 'that is the end of the matter.'").

But there is more. The structure of the Nuclear Waste Policy Act further confirms that the Commission has no authority to license private, away-from-reactor spent nuclear fuel facilities. In the only instances in which the Act specifically addresses spent nuclear fuel storage, it provides extensive protections for state and local governments, including rights of participation in the site-selection process and even a veto to the siting decision altogether (subject to override only by both Houses

of Congress). *E.g.*, 42 U.S.C. §§ 10135-10138.⁷ But under the Commission's extrastatutory framework for private, away-from-reactor storage, all of these provisions are inapplicable. States are left with no recourse. There is no rational explanation why Congress would eliminate those protections when the spent nuclear fuel storage facility is private in nature; if anything, privately owned facilities are more likely to threaten local interests. The need for the Act's extensive procedural protections are all the more important here. Instead of vindicating those interests, the Commission has swept them away.

Other provisions in the Nuclear Waste Policy Act reinforce that the Commission lacks authority to license ISP's facility. The Act requires the Secretary of Energy to stop all site-specific activities other than those at Yucca Mountain. See Id. § 10133(a) ("The Secretary shall carry out, in accordance with the provisions of this section, appropriate site characterization activities at the Yucca Mountain site."); id. § 10172(a)(1) ("The Secretary shall provide for an orderly phase-out of site specific activities at all candidate sites other than the Yucca Mountain site."); id. § 10172(a)(2) ("The Secretary shall terminate all site specific activities ... at all candidate sites, other than the Yucca Mountain site, within 90 days after December 22, 1987."). There would be no need to instruct the Secretary of Energy to focus exclusively on developing Yucca Mountain if, at the same time, the Commission still had

⁷ Congress later took it upon itself to specifically designate Yucca Mountain as the permanent repository, and overrode the State of Nevada's notice of disapproval of that siting decision. *Nuclear Energy Inst.*, *Inc. v. EPA*, 373 F.3d 1251, 1311 (D.C. Cir. 2004).

power to license private, away-from-reactor facilities to indefinitely store spent nuclear fuel.

The Act also provides that if the Yucca Mountain site is "unsuitable for development as a repository," the Department of Energy must "report to Congress not later than 6 months after such determination[s]...[with] recommendations for further action to assure the safe, permanent disposal of spent nuclear fuel and high-level radioactive waste, *including the need for new legislative authority*." *Id.* § 10133(c)(3) (emphasis added). The Commission's approach likewise converts this provision to a nullity because it proceeds from the premise that the Commission already has the "legislative authority" to solve the spent nuclear fuel storage problem for the indefinite future even if Yucca Mountain fails. *See Reiter v. Sonotone Corp.*, 442 U.S. 330, 339 (1979) ("In construing a statute we are obliged to give effect, if possible, to every word Congress used.").

Finally, the Act's treatment of the alternative measures that may be used besides a permanent repository also shows that Congress did not authorize what the Commission has done here. The Act allows the government to operate one "monitored retrievable storage" center as a supplement to the Yucca Mountain site. 42 U.S.C. § 10162(b). But the Department of Energy cannot construct that facility until the Commission has licensed the repository at Yucca Mountain. *Id.* § 10168(d)(1). This timing limitation exists "[b]ecause of fears that," if the monitored retrieval storage site could be opened before Yucca Mountain, the site "would reduce the need to open the permanent repository and become a de facto repository itself." Cong. Rsch. Serv., Civilian Nuclear Waste Disposal 33 (updated Sept. 17, 2021). This led the

D.C. Circuit to observe that "[t]he statute is obviously designed to prevent [the Department of Energy] from delaying the construction of Yucca Mountain as the permanent facility while using temporary facilities." *NARUC*, 736 F.3d at 519. If it is "obvious" that the federal government cannot disregard its obligation to move forward with the Yucca Mountain site by proceeding with federally operated storage sites, then necessarily the Commission cannot use *private* sites to avoid this prohibition. *See City of Eugene v. FCC*, 998 F.3d 701, 711 (6th Cir. 2021) (parties "[may] not 'end-run' the Act's limitations by using other . . . entities or other sources of authority to accomplish indirectly what [they] are prohibited from doing directly" (cleaned up)). After all, section 10155(h) provides that any away-from-reactor storage facility must be "owned by the Federal Government." 42 U.S.C. § 10155(h).

Indeed, even Congress has recognized that the federal government needs additional authority before it can license private interim storage facilities. In 2019, several legislators introduced H.R. 2699, which would have authorized "DOE to store spent fuel at an NRC-licensed interim storage facility owned by a nonfederal entity." Civilian Nuclear Waste Disposal, *supra*, at 15-16. The legislation failed to pass.⁸

⁸ This is all in contrast to existing, well-established *low-level* radioactive storage processing and disposal licenses in Texas and elsewhere, which are authorized by both state and federal law. *See* 42 U.S.C. §§ 2021b-2021j; Tex. Health & Safety Code §§ 403.001-.006. No comparable laws allow for such storage, management, or disposal of spent fuel at a private, away-from-reactor facility in Texas.

C. The Court should decline to follow the D.C. Circuit's construction of the two Acts.

The D.C. Circuit came to a different conclusion in *Bullcreek*, 359 F.3d at 543, and concluded that the Atomic Energy Act (not the Nuclear Waste Policy Act) authorized the Commission to license a private, away-from-reactor storage facility for spent nuclear fuel. But the opinion is irreconcilable with core tenets of statutory interpretation that the Supreme Court has repeatedly endorsed and recently reinforced.⁹

First, the *Bullcreek* court started from a flawed premise. It conceded that the Atomic Energy Act "does not specifically refer to the storage or disposal of spent nuclear fuel," but cited three cases for the proposition that "it has long been recognized that the [statute] confers on the [Commission] authority to license and regulate the storage and disposal of such fuel." 359 F.3d at 538. From there, it concluded that the Commission must also have authority to license a private facility away from a reactor. But the cases the court cited dealt with State and local authority to regulate spent nuclear fuel storage—not anything close to this premise. One case upheld a State's authority to condition construction of new nuclear reactors on the existence of adequate storage and disposal. *Pac. Gas & Elec. Co. v. State Energy Res. Conservation & Dev. Comm'n*, 461 U.S. 190, 194-95 (1983). The two other cases just held that state and local governments were preempted from prohibiting already-constructed

⁹ The Tenth Circuit later adopted the D.C. Circuit's holding but did not expand on the court's reasoning. *Skull Valley Band of Goshute Indians v. Nielson*, 376 F.3d 1223, 1232 (10th Cir. 2004).

nuclear reactors from offering to store spent nuclear fuel produced by other reactors. See Bullcreek, 359 F.3d at 538 (citing Illinois v. Gen. Elec. Co., 683 F.2d 206, 214-15 (7th Cir. 1982), and Jersey Cent. Power & Light Co. v. Twp. of Lacey, 772 F.2d 1103, 1112 (3d Cir. 1985)). None of those cases dealt with the specific problem of licensing a private, stand-alone storage facility, much less one that was away-from-reactor.

Because it started from this flawed premise, the D.C. Circuit proceeded to ask only whether the Nuclear Waste Policy Act "repeal[ed] or supersede[d]" the Commission's authority to license a private, away-from-reactor storage facility for spent nuclear fuel. *Id.* at 543. But that posed the wrong question. The Commission never had such authority in the first place. Supra 14-22. The framing of the question that way also improperly sidestepped Supreme Court precedent making clear that Congress must "enact exceedingly clear language if it wishes to significantly alter the balance between federal and state power." United States Forest Serv. v. Cowpasture River Pres. Ass 'n, 140 S. Ct. 1837, 1849-50 (2020) (citing Gregory v. Ashcroft, 501 U.S. 452, 460 (1991)). The Nuclear Waste Policy Act recognized that "State . . . participation" is "essential," and it explicitly was designed to "define the relationship between the Federal Government and the State governments with respect to the disposal of [spent nuclear fuel]." 42 U.S.C. 10131(a)(6), (b)(3). As explained above, the Act provides the States with significant power and responsibility in this problem's resolution. Id. §§ 10135-38. The Commission's extra-statutory approach nullifies the States' role in the nuclear waste storage process and the protections that Congress carved out. Bullcreek did not account for those problems.

It is also doubtful that *Bullcreek* comports with the D.C. Circuit's more recent precedent, which clarifies that an administrative agency "must point to something in [its organic statute] that gives it authority to" take the challenged action. *Clean Air Council v. Pruitt*, 862 F.3d 1, 9 (D.C. Cir. 2017) (per curiam). That cannot be squared with a holding that the Commission has always had authority—even though it is nowhere in the text—to license a private, away-from-reactor storage facility for spent nuclear fuel. *Bullcreek*, 359 F.3d at 538 (admitting "the [Atomic Energy Act] does not specifically refer to the storage or disposal of spent nuclear fuel," but concluding "it has long been recognized" that the Commission has this power).

The better manner of harmonizing the two statutes is to find that nothing in either the Atomic Energy Act or the Nuclear Waste Policy Act gives the Commission the authority to license a private, away-from-reactor spent nuclear fuel facility, especially in the absence of the protections afforded to state and local governments when storage sites are expressly permitted by statute. The *Bullcreek* court also lacked the benefit of nearly twenty years of subsequent developments, *supra* 9-10, which have made it even more apparent that the Yucca Mountain site is not any closer to solving the country's nuclear waste problems.

D. The Commission has licensed a *de facto* permanent facility.

For the reasons discussed above, the Commission lacks the authority to license a private, away-from-reactor storage facility, regardless of whether the site is temporary or permanent. But if the Court concludes that the Commission has the authority to issue a temporary license, the Commission's license still exceeds the agency's authority. The Commission does not contend that it may issue a *permanent* license to

store spent nuclear fuel above-ground at a private, away-from-reactor facility. That argument is too much of a stretch even for the Commission. The Commission's regulations instead provide that all applications for a license to operate a storage facility will be temporary and that applicants must include a plan for the future decommissioning of the site. *See* 10 C.F.R. § 72.130. In addition to preparing a plan for final decommissioning, applicants must estimate the cost of decommissioning and provide financial assurances as to their ability to pay for it. *See id.* § 72.30(b); *see also id.* § 72.22(e)(3).

The State's concerns about the permanency of the ISP facility are grounded in the federal government's extensive, ongoing breach of its duty to construct a permanent repository. ISP's license may stretch on for over half a century. The Commission can offer no reason to believe that the ensuing decades will rectify the federal government's decades-long failure to meet its Congressional mandate. After thirty years of searching, the federal government is yet again in dire need of a new path forward. As the D.C. Circuit recognized, the federal government "apparently has no long-term plan other than hoping for a geologic repository. If the government continues to fail in its quest to establish one, then [spent nuclear fuel] will seemingly be stored on site at nuclear plants on a permanent basis." New York, 681 F.3d at 479. The same logic applies even more forcefully to the ISP facility. Deadly waste will traverse hundreds, sometimes thousands, of miles to arrive in Andrews County. That facility will hold an accumulation of the Nation's waste for at least forty years. In that way, the ISP "interim" storage facility will be markedly different from onsite nuclear storage facilities dispersed throughout the country.

If a permanent repository is not built in the next sixty years, why would the Commission allow ISP's facility to close down? Where would all that waste go? The inertia would all but guarantee that the ISP facility will transform into the de facto permanent repository for the Nation's nuclear waste. In the face of the unique historical and political obstacles to redressing the Nation's waste disposal policy problems, the Commission's assurance that the ISP license is temporary is implausible and need not be given any weight. NARUC v. DOE, 736 F.3d 517, 519 (D.C. Cir. 2013) (vacating Commission's ability to undertake regulatory activity that was keyed to its "pie in the sky" projection that a permanent repository will be open by 2048); Dep't of Com. v. New York, 139 S. Ct. 2551, 2575 (2019) (judges are "not required to exhibit a naivete from which ordinary citizens are free"). Indeed, the Commission itself seems to recognize that the ISP facility may operate well-past the terms of the license. See C.I. No. 125 at 5-15 (Final Environmental Impact Statement, ("FEIS")) ("incorporat[ing]" into license analysis previous generic determinations about the consequences of allowing spent nuclear fuel to remain in storage facility after the license's expiration). The ISP license is therefore an impermissible encroachment into Congress's authority to find a permanent storage facility for spent nuclear fuel.

II. The Commission's Issuance of the License Violates the Administrative Procedure Act.

A. The Commission's stated purpose for the ISP license is arbitrary and capricious.

Even assuming that the Commission had statutory authority to license an awayfrom-reactor, private storage facility, the Commission was required to conform to the Administrative Procedure Act. See 42 U.S.C. § 2239(b). That means that the Commission's decisionmaking process had to be reasonable, supported by substantial evidence, and not arbitrary and capricious. See 5 U.S.C. § 706; Vt. Yankee Nuclear Power Corp. v. Nat. Res. Def. Council, Inc., 435 U.S. 519, 535 n.14 (1978) (arbitrary and capricious review applies to Commission licensing); Shieldalloy Metallurgical Corp v. NRC, 768 F.3d 1205, 1208 (D.C. Cir. 2014) (same). The Commission failed to meet those obligations.

1. It is textbook arbitrary and capricious action for an agency to "rel[y] on factors which Congress has not intended it to consider." *Motor Vehicle Mfrs Ass'n v. State Farm Mut. Auto Ins. Co.*, 463 U.S. 29, 43 (1983). The Commission's overriding purpose here was based on a factor Congress never provided. Specifically, the Commission wants to allow existing facilities to offload their waste so that their land can be restored to non-nuclear uses. FEIS at 1-3. Nothing approximating that goal appears anywhere in the Commission's organic statutes, and the goal implicates matters wholly outside the Commission's jurisdiction.

The purpose of the Atomic Energy Act is to "promote the civilian development of nuclear energy, while seeking to safeguard the public and the environment from the unpredictable risks of a new technology." *Pac. Gas*, 461 U.S. at 194. And the statute enumerates these goals through specific factors that the Commission must evaluate when it issues a license. *See* 42 U.S.C. § 2232(a) (Commission must evaluate whether licensee's operations "will be in accord with the common defense and security and will provide adequate protection to the health and safety of the public"). The Commission's regulatory activities are ordinarily harmonious with this purpose

in a straightforward way: when it licenses a nuclear reactor, it "promote[s] the civilian development of nuclear energy," *Pac. Gas*, 461 U.S. at 194, and when the Commission regulates how spent nuclear fuel will be stored at the reactor site, it "safeguard[s] the public and the environment," *id.* The ISP license, however, does not advance these goals. The license does not even purport to "promote the civilian development of nuclear energy," *id.*—nor could it, because it is strictly about storing waste and not about producing energy. And the license does not "safeguard the public and the environment," *id.*, because all of the spent nuclear fuel that ISP would store under the license is already being safely housed at existing facilities.

2. Instead, the Commission's overriding rationale is one that has no statutory foundation. The Commission claims that the ISP facility is "needed" to "provide the option" to remove spent nuclear fuel from "decommissioned reactor sites" so that the "land at these sites could be made available for other uses." FEIS at 1-3. That is a classic land use determination that the Commission has no jurisdiction over. *See Pac. Gas*, 461 U.S. at 212 (States retain "traditional authority over . . . land use" under the Atomic Energy Act); *see also Va. Uranium, Inc. v. Warren*, 139 S. Ct. 1894, 1903 (2019) (plurality op.) ("[T]he [Commission] has long believed, and still maintains, that the [Atomic Energy Act] affords it no authority to regulate uranium mining on private land."). 10

¹⁰ If any federal agency did have jurisdiction over local land-use determinations, it would not be the Commission. *Cf. King v. Burwell*, 576 U.S. 473, 486 (2015) (no deference to "IRS" decision affecting "health insurance policy"—a subject matter where the IRS had no expertise); *Nat'l Fed'n of Indep. Bus. v. Dep't of Labor, OSHA*,

The Commission's reliance on this factor—indeed, its decision to justify the entire license on this basis—is the type of classic arbitrary and capricious action that the courts routinely vacate. See, e.g., Luminant Generation Co. v. EPA, 675 F.3d 917, 926, 930 (5th Cir. 2012) (EPA rejection of State plan for implementing federal air quality standards was arbitrary and capricious because EPA's rejection was based on "state law standards" that the federal statute did not permit EPA to consider) (emphasis added); Ctr. for Biological Diversity v. BLM, 698 F.3d 1101, 1109-10 (9th Cir. 2012) (vacating agency record of decision authorizing pipeline project where agency relied on justification that was "inconsistent with the statutory scheme").

3. Even if the Commission's goal were statutorily legitimate (it is not), the license would still fail because the license undermines and is inconsistent with the Commission's stated goal in multiple respects.

First, under the Administrative Procedure Act, the Commission was required to support its key findings with "substantial evidence." 5 U.S.C. § 706(2)(E). Speculation does not suffice. See, e.g., Dish Network Corp. v. NLRB, 953 F.3d 370, 376 (5th Cir. 2020) ("[T]he evidence 'must be substantial, not speculative, nor derived from inferences upon inferences.'") (citation omitted). Yet the Commission conceded that it is entirely speculative whether any decommissioned reactors will actually be disassembled and restored to a non-nuclear use. FEIS at 8-9 (Commission admitting it cannot even "quantif[y]" potential future benefit of making the land available for

¹⁴² S. Ct. 661, 668 (2022) (Gorsuch, J., concurring) (OSHA vaccine mandate invalid because OSHA "arguably [was] not even the agency most associated with public health regulation").

other uses because it depends on contingencies outside the Commission's control). The Commission stated that, for those sites where the reactor is no longer in use, the Commission can "terminate" the decommissioned facility's license once spent nuclear fuel is shipped to ISP and then "release[] the property for other uses." *Id.* But there is no telling when another party will take advantage of that "release" and actually operationalize any "other uses." The Commission's decisional documents pointed to no evidence—much less substantial evidence—indicating that any party has a concrete plan to restore these decommissioned reactor sites. As a result, the sole stated purpose of the Commission's decision is to achieve a purely theoretical benefit that the agency has no reasonable way of predicting will ever be achieved.

Second, agency action is fatally flawed where the explanation for the action is marred by "unexplained inconsistencies." See Sierra Club v. EPA, 939 F.3d 649, 664 (5th Cir. 2019). And the Commission's record here contains multiple unexplained inconsistencies. For example: the Commission recognized that many reactors—particularly the existing decommissioned ones—require infrastructure upgrades before they can ship spent nuclear fuel, including installation of "rail track, roads, or barge slips." FEIS at 4-10. So, instead of disassembling and restoring the land to a different use, these facilities will have to expand their existing footprint. That reality is at cross-purposes with the Commission's stated goal. The Commission also recognized that spent nuclear fuel may be shipped to ISP from active reactors, even though an active reactor by definition cannot be used for non-nuclear uses. FEIS at 2-1 ("During operation, [ISP] would receive [spent nuclear fuel] from decommissioned and

decommissioning reactor sites, as well as from operating reactors prior to decommissioning."). These inconsistencies are the hallmark of arbitrary decisionmaking. *ANR Storage Co. v. FERC*, 904 F.3d 1020, 1028 (D.C. Cir. 2018) (vacating federal agency's "internally inconsistent" order).

Third, even if the Commission's action was rationally constructed to advance the agency's stated restoration goal, the action is still fatally flawed because it elevates this extra-statutory consideration over "environment[al]" considerations that the Atomic Energy Act makes paramount. See Pac. Gas, 461 U.S. at 194. The Commission concedes that, if no license is issued, then environmental impacts would merely continue to occur unchanged at facilities where the fuel is being stored. FEIS at 8-9.11 With the license, however, the situation gets worse: "[i]n addition [to the] environmental impacts [that] would continue to occur at" existing facilities, new impacts would occur at the ISP location. Id. The Commission recognized 14 different categories of environmental impacts. See FEIS at 2-25-29 (table of categories). Some, it alleged, would be small, such as the "minor increases in traffic hazards and road degradation" during construction. FEIS at 4-7. In other cases, the Commission conceded the environmental impacts would be larger: The ISP facility would impose at least "moderate" ecological impacts, FEIS at 2-26, such as "habitat loss from land clearing," "collisions of wildlife with power lines," and "increased soil erosion from

¹¹ Indeed, even if those facilities are forced to expand their on-site storage, the Commission previously found that the environmental consequences would be "negligible." *See* NUREG-0404, *supra*, at ES-5.

wind and surface water runoff," FEIS at 4-39. But in every instance, the Commission recognized the ISP facility would take a toll on the environment. FEIS at 2-25-29.¹²

B. The Commission's order flouts the statutory directive to minimize transportation of spent nuclear fuel.

The Commission's decision to license the ISP facility also ignores the clear statutory directive that spent nuclear fuel should reach its final destination through minimal transportation. Under the Nuclear Waste Policy Act, Congress provided that the national regulatory authorities "shall seek to minimize the transportation of spent nuclear fuel." 42 U.S.C. § 10155(a)(3); see also id. § 10164(2) (federal monitored retrievable storage location should "minimize the impacts of transportation and handling of [spent nuclear] fuel and waste"). The Commission was not free to disregard Congress's judgment. Agency action is arbitrary and capricious if the agency "entirely fail[s] to consider an important aspect of the problem." See State Farm, 463 U.S. at 43. And transport minimization is undeniably an important aspect of the problem of storing spent nuclear fuel. See, e.g., Nat'l Urban League v. Ross, 977 F.3d 770, 777 (9th Cir. 2020) (statutory factors are important aspect of the problem); Cigar Ass'n v. FDA, 964 F.3d 56, 61 (D.C. Cir. 2020) (same).

¹² One of the 14 environmental categories that the Commission considered was the project's "socioeconomic" effects. FEIS at 2-28, 4-66-77. Here, the Commission did purport to find a benefit—"primarily associated with workers who might move into the area and tax revenues that the proposed project would generate." FEIS at 4-67. But these are plainly economic considerations, not environmental ones.

But here the Commission issued a license that will inevitably result in duplicative transport—once to ISP, and then again to a permanent repository (if the Commission's dubious promises materialize)—without any reasoned explanation. See FEIS at 8-1 (conceding that under the ISP license, spent nuclear fuel will be transported once to the ISP facility and then again later to a permanent repository—instead of just once from its current location to the permanent repository). The facts of ISP's plan make this failure particularly arbitrary. For example, the Commission recognized that the current likely location for a permanent repository is at Yucca Mountain (in Nevada). FEIS at 3-9. The Commission also anticipates that the ISP facility would initially receive spent nuclear fuel from 12 specific decommissioned reactor sites. *Id.* Some of these sites, however, are substantially closer to Yucca Mountain than they are to Andrews County, Texas. In fact, for some of the sites, the waste would likely have to pass by Yucca Mountain to arrive at Andrews County. Take the decommissioned reactor site in Rainier, Oregon—just outside of Portland. Id. (Commission listing this as one of the 12 specific sites). The Commission does not yet know what route the waste would take from this location to Andrews County. FEIS at 8-12 ("[T]he routes for transportation have not yet been established."). But Rainier, Oregon is located northwest of Nevada, and Andrews County, Texas is located southeast of Nevada. Unsurprisingly, then, one possible travel route would cut through the entire state of Nevada. So, one likely upshot of the ISP license is not merely that spent nuclear fuel will be transported twice, but that some of the fuel will literally travel past its intended final destination (in Nevada) to reach an allegedly

temporary destination (in Andrews County, Texas). There is no conceivable argument that Congress would have sanctioned that. *See* 42 U.S.C. § 10155(a)(3); *see also id.* § 10164(2).

The Commission does not have an answer to how this irrational transportation scheme fits with the statutory directive to minimize transportation. The Commission does, however, take the position that transport would be safe—so safe, in fact, that the Commission believed it was not even worth "attempt[ing] to directly quantify the economic cost of any particular hypothetical accident." FEIS at 8-6. But Congress's instruction is to limit transport full-stop—not merely to make sure it is "safe." That is because there are many non-safety considerations involved with transport, including social and institutional problems that are beyond the ken of the Commission. See Nat'l Academy of Sciences, Going the Distance?: The Safe Transport of Spent Nuclear Fuel and High-Level Radioactive Waste in the United States 149-54 (2006) ("NAS Report").

There are also ample reasons to reject the Commission's rosy safety projection. For one, a long-distance spent nuclear fuel transportation campaign of this magnitude has never been tried. See, e.g., U.S. Nuclear Waste Tech. Review Bd., 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 Transp. Waste ("DOE Analysis") (Sept. at xxii 2019), https://tinyurl.com/549f746k (last visited Feb. 7, 2022) ("For decades, small-scale shipments of [spent nuclear fuel] have occurred . . . However, transporting large quantities of [spent nuclear fuel] has not been done and will require significant planning

and coordination by DOE."). And the Department of Energy does not share the Commission's rosy outlook. It recognized that a transportation incident could result in costs up to \$10 billion. FEIS at 8-6. The Department has also recognized that, while *one-time* transport of spent nuclear fuel may be safe, it has no idea "whether any technical problems will be associated with moving [spent nuclear fuel] more than once." DOE Transp. Analysis 14. And the Department believes that a number of preparatory steps must first occur before a campaign of this magnitude can be undertaken. *Id.* at 15-16.

Even if the Commission's safety assessment could validate this irrational transportation approach (it cannot), the assessment depends on an impossible premise. Specifically, the Commission anticipates that there will be literally zero meaningful transportation incidents because it expects perfect compliance with regulatory standards by the manufacturers and shippers who will be involved in packaging and transporting the spent nuclear fuel. But the Commission is not entitled to base a safety assessment on the unrealistic assumption that private industry will be 100%

¹³ The Commission's conclusion that there would be no significant transportation incidents was based on its analysis in "NUREG-2125"—"the most recent [Commission] sponsored [spent nuclear fuel] transportation risk assessment." FEIS at 4-12. The conclusions in NUREG-2125, in turn, are based on "spent fuel transport conducted in compliance with [10 CFR Part 71]." NRC, NUREG-2125, Spent Fuel Transportation Risk Assessment: Final Report at 131 (Jan. 2014). Those regulations occupy 57 pages of the Code of Federal Regulations and are some of the most complex regulations in that Code. And they, in turn, also assume compliance with another agency's set of regulations. See 10 C.F.R. Part 71.5(a)(1) (assuming "compl[iance] with" voluminous Department of Transportation regulations).

compliant. See Nat'l Fam. Farm Coal. v. EPA, 960 F.3d 1120, 1139 (9th Cir. 2020) (vacating EPA registration of hazardous pesticide because the "EPA entirely failed to acknowledge" that there may be private "[n]on-compliance with the restrictions" that EPA imposed on how the pesticide could be used). It was required to assess the likelihood and consequences of regular human error. See NAS Report at 154 (recognizing "human error play[s] a large role in determining [spent nuclear fuel] transportation risks"). The Commission's own regulations anticipate that human error is possible. See 10 C.F.R. § 71.37 (requiring "quality assurance program" to check for problems regarding "design, fabrication, assembly, testing, maintenance, repair, modification, and use of the proposed [transportation] package."); see also id. § 71.107. But the Commission here failed to evaluate the consequences of human error.

C. The Commission's cost-benefit analysis does not justify the ISP license.

The Commission also cannot justify the ISP license on the ground that it will be economically beneficial. *See* FEIS at 8-1-11 (asserting that the benefits of consolidated interim storage outweigh its costs).

The desirability of an additional storage facility like ISP's—while there is no indication that current storage is less safe—reflects economic, not safety, considerations. *See Pac. Gas*, 461 U.S. at 196-97 (recognizing that storage uncertainty may make it "uneconomical" to produce more nuclear energy). But the Commission is not allowed to let economic considerations override statutory safety and environmental factors. *See, e.g., Union of Concerned Scientists v. NRC*, 824 F.2d 108, 117-18

(D.C. Cir. 1987) ("Allowing consideration of costs at the [licensing] stage . . . would flout the mandate we have found in the statute—*i.e.*, that the Commission ensure a level of public health and safety without regard to economic costs."). ¹⁴ Instead, as the Supreme Court has explained, the economics of nuclear energy are a consideration for state regulators. *Pac. Gas*, 461 U.S. at 212 ("[T]he federal government maintains complete control of the safety and 'nuclear' aspects of energy generation; the states exercise their traditional authority over the need for additional generating capacity."). That is why "[t]he [Commission's] imprimatur . . . indicates only that it is safe to proceed with [a] plant[], not that it is economically wise to." *Id.* at 218. The Commission's cost-benefit analysis, then, can play no role in justifying the ISP license.

Even if the Commission could lawfully use a cost-benefit analysis to justify the ISP license, the analysis here was riddled with errors and inconsistencies. The foundational datapoint for the Commission's cost-benefit equation—how long the ISP facility will operate—is irreconcilable with projections the Commission has made for when the permanent repository will become available. *See Sierra Club*, 939 F.3d at 664 ("unexplained inconsistencies" doom agency action); *ANR Storage*, 904 F.3d at 1028 (same). The Commission concluded that benefits will outweigh the costs based

¹⁴ The Commission may consider economic costs when "devising or administering requirements that offer protection *beyond*" the statutory requirements. *See Union of Concerned Scientists*, 824 F.2d at 114. That authority is inapplicable here, where the Commission was issuing an initial license and was required to satisfy the statutory factors for that issuance.

on the premise that the ISP facility will consolidate at one facility the functions being performed by multiple facilities, and that economies of scale will result in savings. FEIS at 8-7 ("potential savings are estimated by subtracting the costs associated with storing [spent nuclear fuel] at the proposed [ISP facility] from the costs of continuing to store [spent nuclear fuel] at reactor sites"). Necessarily, the benefits that will accrue depend on how long the ISP facility will operate. If the facility operates for only one year, then the benefits from consolidation only accrue for that one year, and would not outweigh substantial start-up and other fixed costs (i.e., building the facility, transporting fuel to the facility, storing the fuel, and then decommissioning the facility). FEIS at C-5 (chart depicting significant share of cost in construction of the facility). If the facility operates for a longer period after the start-up costs have been incurred, then the benefits will increase, and—according to the Commission—will eventually result in a less costly solution to spent nuclear fuel storage than the status quo. The Commission assumed the facility will operate for at least 40 years, and so compared the calculated savings of storage at ISP versus the status quo over a 40year horizon. FEIS at 8-10. But the Commission also projects that a permanent repository will be available by 2048. FEIS at 2-2. That is 27 years after the license's 2021 issuance—not 40 years. At most, then, the Commission's calculations should have been based on a 27-year horizon. That would have dramatically reduced the benefits of the ISP facility, and so could have changed the entire result of the analysis.

The Commission also irrationally based its analysis on ISP's representation that its operations costs would be static "regardless of how much [spent nuclear fuel] was stored at" its facility. FEIS at C-3. That is implausible as a common-sense matter—

more storage requires more overhead. And the Commission's own analysis undercuts it. Specifically, the Commission concluded that the storage cost at *existing*, atreactor facilities is directly proportional to the amount of fuel being stored. FEIS at C-13. The Commission projected that it would take 10 years to transport all fuel from such a facility, and so calculated a "10 percent" reduction in storage costs for "each year" during that "10-year period." *Id.* It is not apparent how existing facilities' costs could be dependent on the amount they must store, whereas ISP's costs are not. And even if in theory it is possible to square this circle, the Commission made no attempt to do so. That was significant because it resulted in a dramatic underestimate of ISP's actual costs, skewing the cost-benefit analysis in ISP's favor.

Finally, the Commission stacked the deck in multiple other respects to the advantage of the ISP side of the cost-benefit ledger. For example, the Commission refused to consider certain costs associated with moving the spent nuclear fuel to ISP, thereby reducing the overall cost of the ISP plan. It recognized that some existing storage facilities would have to build new infrastructure before their spent nuclear fuel could be shipped to ISP. FEIS at 8-11. But the Commission flatly refused to quantify this cost and include it in the cost-benefit analysis, explaining that it would be too "difficult" to do so. *Id.* The Commission also assumed that every facility from which ISP would receive spent nuclear fuel would be decommissioned by the twenty-third year of ISP's operation. *See* FEIS at C-18-19. This was highly significant because the Commission concluded that the storage cost at a *decommissioned* reactor site is *ten times* as much as the storage cost at an active reactor site. *See* FEIS at 8-8 ("10,864,743" per year for storage at "decommissioned reactor site" versus

"1,086,474" at active site). So, the savings from storing that spent nuclear fuel at ISP dramatically increases if it comes from a decommissioned reactor site versus an active one. But the Commission cited no evidence supporting its conclusion that all reactor sites would be decommissioned by the twenty-third year of ISP's operations.

* * *

The Commission's rationales for the license are illegitimate, and do not pass muster even on their own terms. The Court should vacate the license because the Commission's decisionmaking process violated the Administrative Procedure Act.

III. The Commission Violated NEPA by Failing to Assess the Risks from Potential Terrorist Attacks.

The Commission also violated NEPA when it issued the license. Under NEPA, federal agencies must prepare a "detailed statement... on ... the environmental impact" of any proposed major action "significantly affecting the quality of the human environment." 42 U.S.C. § 4332(C)(i). The Council on Environmental Quality has promulgated regulations that govern all federal agencies' NEPA evaluations. *See, e.g., Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 355 (1989) (recognizing role of these programmatic regulations and explaining they are entitled to "substantial deference"); 40 C.F.R. §§ 1500.1 *et seq.* Under these regulations, an agency must assess the "reasonably foreseeable significant adverse effects" of its action, including "impacts that have catastrophic consequences, even if their probability of occurrence is low." *See* 40 C.F.R. § 1502.21(d).

The Commission was thus required to consider the threat of a potential terrorist attack on the ISP facility. Although the probability of a terrorist attack may be relatively "low," the consequences of such an attack could plainly be "catastrophic." *Id.* § 1502.21(d). Spent nuclear fuel is one of the most hazardous substances on the face of the Earth; it poses a "dangerous, long-term health and environmental risk" and "will remain dangerous for time spans seemingly beyond human comprehension." *See New York*, 681 F.3d at 474. Even when mere accidents occur at nuclear facilities, the resulting catastrophes can have destabilizing, devastating consequences that last for generations.

A deliberate attempt to trigger a catastrophe could result in even greater consequences. That is why Congress has recognized that the Commission must evaluate the potential for terrorist attacks, see 42 U.S.C. § 2210e, and why NEPA specifically requires such an evaluation when the Commission licenses new nuclear facilities, San Luis Obispo Mothers for Peace v. NRC, 449 F.3d 1016 (9th Cir. 2006) (finding that the Commission violated NEPA when it failed to consider environmental effects of terrorist attack targeting on-site spent fuel storage installation).

The Commission flatly declined to consider the potential for a terrorist attack in its Environmental Impact Statement. See FEIS at D-149-150. It recognized that many commenters "express[ed] concerns about security and the potential for terrorist attacks." Id. at D-149. But then it baldly asserted that these concerns were outside "the scope of the environmental review." Id. at D-150. Under the Mothers for Peace holding, that indisputably violates NEPA. See Mothers for Peace, 449 F.3d at 1035

("[W]e conclude that the [Commission's] determination that NEPA does not require a consideration of the environmental impact of terrorist attacks does not satisfy reasonableness review.").

The Commission may contend that the Third Circuit's decision in *New Jersey Department of Environmental Protection v. NRC*, 561 F.3d 132 (3d Cir. 2009), excused the agency from considering the potential consequences of a terrorist attack. That case purported to create a circuit split with *Mothers for Peace* on the issue of whether NEPA requires assessment of terrorist attacks in Commission proceedings. But that case was demonstrably different than *Mothers for Peace* and thus bears little weight here.

In *Mothers for Peace*, the Commission licensed new storage (at the reactor). 449 F.3d at 1021 (license for facility for "on-site storage of spent fuel, the byproduct of the two nuclear reactors at th[e] site"). But in *New Jersey*, the Commission was "relicens[ing] a nuclear power facility" that already existed. 561 F.3d at 133 (emphasis added). When the *New Jersey* court purported to depart from the *Mothers for Peace* holding, it explicitly noted this key distinction and explained how it counseled against the need to evaluate the consequences of a potential terrorist attack. *See id.* at 142 ("We note, initially, that *Mothers for Peace* is distinguishable on the ground that it involved the proposed construction of a new facility—a change to the physical environment arguably with a closer causal relationship to a potential terrorist attack than the mere relicensing of an existing facility."). Here, by contrast, the need to assess consequences of a terrorist attack are even more prominent than they were in *Mothers for Peace* because here the Commission intends to consolidate a massive quantity

of the nation's spent nuclear fuel in one place, whereas in *Mothers for Peace* the only spent nuclear fuel would be coming from the new location's own nuclear reactors. More spent nuclear fuel necessarily will increase the consequences if a terrorist attack succeeded. And the need to transport the spent nuclear fuel will multiply the opportunities for a terrorist attack.

To the extent the *New Jersey* decision supports categorically excluding terrorist concerns from the Commission's NEPA evaluations, however, it was wrong. The court there concluded that the Commission did not need to analyze potential environmental effects of a terrorist attack because the Commission's licensing action would not be "the proximate cause of environmental harm in a terrorist attack." 561 F.3d at 140. The Third Circuit purported to adopt this analytical approach from the Supreme Court's NEPA decision in Metropolitan Edison Co. v. People Against Nuclear Energy, 460 U.S. 766 (1983). But the Metropolitan Edison decision was demonstrably inapposite—it was about the alleged psychological harm that would flow to surrounding residents from permitting the resumption of operations at the notorious Three Mile Island nuclear power plant, id. at 768-69. The Supreme Court there was not prepared to say the Commission had to consider such risk because, among other things, the possibility of psychological harm was almost impossible to divorce from "claims that are grounded solely in disagreement with a democratically adopted policy"—which NEPA could not be read to mandate consideration of. Id. at 778. That case did not purport to establish a rule about what kinds of risks the Commission must consider. And it expressly recognized that it would be an "entirely different case" if the Commission were being "asked to consider effects that will occur if a

risk is realized, for example, if an accident occurs at [Three Mile Island]." *Id.* at 775 n.9. That is essentially what Texas has asserted in this matter: Texas contends that the Commission should have considered the deleterious effects on Texas and the country if a terrorist attack occurs at the ISP facility.

The Commission may also assert that its generic safety and security regulations adequately address and prevent the possibility of a terrorist attack. *See* FEIS at D-150 (citing agency's regulatory requirement at 10 CFR Part 73 and 10 CFR Part 72). But that would be wrong for multiple reasons. Those regulatory requirements implement the Commission's obligation under *the Atomic Energy Act* to ensure it licenses facilities that are safe. And "compliance with the [Atomic Energy Act] does not excuse the agency from its NEPA obligations." *Mothers for Peace*, 449 F.3d at 1020. So even if those regulations mitigate the likelihood of a successful terrorist attack, the Commission was nevertheless required *under NEPA* to consider the consequences *if* such an attack were executed.

In addition, there are many site-specific qualities of the ISP facility that demanded specific analysis and that were specifically brought to the Commission's attention. The Commission was not permitted to rely on generic regulatory requirements and ignore these specific features. *See, e.g., New York*, 824 F.3d at 1018 ("When the [Commission] does make a licensing decision in partial reliance on [generic determinations], it must at that time ensure that it has fully complied with NEPA."); *New York*, 681 F.3d at 477 (Commission asserting that "site-specific factors that differ from plant to plant" can give rise to specific challenges "at the time of [that] specific plant's licensing").

Governor Abbott specifically noted that the ISP facility would give rise to heightened terrorism concerns because the facility would consolidate spent nuclear fuel
from many different locations in a particularly important area of the country. Abbott
Letter at 1-2. The Governor informed the Commission that the proposed ISP facility
"lies within the Permian Basin Region"—the "largest producing oilfield in the
world"—and that an attack on this location would be particularly catastrophic because it could cause a "major radioactive release that could travel hundreds of miles
on the region's high winds" and decimate as much or more than 30 percent of total
U.S. crude oil production. *Id.* at 1-2. The "Permian Basin is a significant economic
and natural resource for the *entire country*," and placing the ISP facility in the heart
of that region makes the facility a "uniquely provocative target." *Id.* at 1-2 (emphasis
added).

Andrews County is also close to the country's southern border. It is public record that terrorists have successfully entered the United States through that border in recent years. *See, e.g.*, Ted Hesson & Mark Hosenball, U.S. arrested two Yemenis on terror watchlist who tried to cross border from Mexico, REUTERS (Apr. 5, 2021), https://tinyurl.com/vp4nf5au (last visited Feb. 7, 2022). For these reasons, even if the Commission could rely in part on generic regulatory requirements, it was still required to take these specific considerations into account in its NEPA determination. But it failed to do so.

The Commission may argue that even if it fell down in its NEPA obligations, the license need not be vacated because this failure was purely procedural and can be fixed on remand. That would be wrong. The proper remedy is vacatur of the ISP

license. The Administrative Procedure Act provides that all invalid agency action should be "set aside." 5 U.S.C. § 706(2); FCC v. NextWave Pers. Commc'ns Inc., 537 U.S. 293, 300 (2003) ("The Administrative Procedure Act requires federal courts to set aside federal agency action that is not in accordance with law."). And it is well established that "set aside" means "vacate." Action on Smoking & Health v. CAB, 713 F.2d 795, 797 (D.C. Cir. 1983) (per curiam) ("To vacate ... means ... to set aside."). The courts will occasionally remand action to an agency without vacating it—but that remedy is "rare," United Steel v. MSHA, 925 F.3d 1279, 1287 (D.C. Cir. 2019), only granted in "exceptional" cases, Am. Great Lakes Ports Ass'n v. Schultz, 962 F.3d 510, 519 (D.C. Cir. 2020), and has no textual basis in the Administrative Procedure Act. The courts routinely vacate action that was not adequately explained, even when it is possible the agency will be able to go back and fix the problem. See, e.g., Mfrs. Ry. Co. v. STB, 676 F.3d 1094, 1097 (D.C. Cir. 2012) (Kavanaugh, J.) ("[T]he [agency] failed to reasonably explain and justify [its decision] Under the APA, the [agency's] decision is therefore arbitrary and capricious. We must vacate."). That approach is warranted here because the Commission's actions are unlawful, and there are no special considerations counseling against vacatur.

Conclusion

The Court should hold unlawful and set aside the order issuing Materials License No. SNM-2515 and vacate the license. The State prays for any other relief the Court deems appropriate.

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CERTIFICATE OF SERVICE

On February 7, 2022, this brief was served via CM/ECF on all registered counsel and transmitted to the Clerk of the Court. Counsel further certifies that: (1) any required privacy redactions have been made in compliance with Fifth Circuit Rule 25.2.13; (2) the electronic submission is an exact copy of the paper document in compliance with Fifth Circuit Rule 25.2.1; and (3) the document has been scanned with the most recent version of Symantec Endpoint Protection and is free of viruses.

/s/ Michael R. Abrams
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CERTIFICATE OF COMPLIANCE

This brief complies with: (1) the type-volume limitation of Federal Rule of Appellate Procedure 32(a)(7)(B) because it contains 12,929 words, excluding the parts of the brief exempted by Rule 32(f); and (2) the typeface requirements of Rule 32(a)(5) and the type style requirements of Rule 32(a)(6) because it has been prepared in a proportionally spaced typeface (14-point Equity) using Microsoft Word (the same program used to calculate the word count).

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