No. 16-1275

In the Supreme Court of the United States

VIRGINIA URANIUM, INC., ET AL., PETITIONERS

v.

JOHN WARREN, ET AL.

ON WRIT OF CERTIORARI
TO THE UNITED STATES COURT OF APPEALS
FOR THE FOURTH CIRCUIT

BRIEF FOR THE UNITED STATES
AS AMICUS CURIAE SUPPORTING PETITIONERS

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QUESTION PRESENTED

Whether the Atomic Energy Act of 1954 (AEA), 42 U.S.C. 2011 *et seq.*, preempts state laws that prohibit activities within a State's regulatory jurisdiction (here, conventional uranium mining) when such laws are grounded in radiological-safety concerns about related activities that are federally regulated under the AEA (here, the milling of uranium ore and disposal of "tailings" byproduct).

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INTEREST OF THE UNITED STATES

This case concerns whether the Atomic Energy Act of 1954 (AEA), 42 U.S.C. 2011 *et seq.*, preempts a state law that prohibits an activity within a State's regulatory jurisdiction, when such a law is motivated by radiological-safety concerns about related activities that are federally regulated under the AEA. Because this case directly implicates federal regulatory responsibilities, the United States has a substantial interest in the Court's resolution of the preemption issue. At the Court's invitation, the United States filed an amicus brief at the petition stage of this case.

STATEMENT

A. Regulatory Background

1. In 1946, Congress created a federal-government monopoly over the production, ownership, and use of "fissionable material," including enriched uranium and

other materials that are "capable of releasing substantial quantities of energy through nuclear chain reaction." Atomic Energy Act of 1946 (1946 Act), ch. 724, §§ 1(b)(4), 5(a)(1), 60 Stat. 756, 760. To implement this federal monopoly, Congress restricted the transfer, delivery, and receipt of nuclear "source materials" like uranium. § 5(b)(1) and (2), 60 Stat. 761.

In 1954, through the AEA, 42 U.S.C. 2011 *et seq.*, Congress eliminated the federal government's monopoly over the "use, control, and ownership of nuclear technology," *Pacific Gas & Elec. Co.* v. *State Energy Res. Conservation & Dev. Comm'n*, 461 U.S. 190, 206 (1983) (*Pacific Gas*), in order "to encourage widespread participation in the development and utilization of atomic energy for peaceful purposes to the maximum extent consistent with the common defense and security and with the health and safety of the public," 42 U.S.C. 2013(d). The AEA preserves the States' authority to regulate "with respect to the generation, sale, or transmission of electric power produced through the use of nuclear facilities licensed by the [NRC]." 42 U.S.C. 2018; see Act of Aug. 30, 1954 (1954 Act), ch. 1073, § 1, 68 Stat. 921. In 1965, Congress clarified that the AEA's preservation of state regulatory authority "shall not be deemed to confer upon any Federal, State, or local agency any authority to regulate, control, or restrict any activities of the [NRC]." 42 U.S.C. 2018; see Act of Aug. 24, 1965, Pub. L. No. 89-135, 79 Stat. 551.

In order to promote private-sector development of nuclear energy, subject to strict federal control, Congress has fashioned a comprehensive scheme for the regulation and development of nuclear energy. *Pacific Gas*, 461 U.S. at 193; see *Duke Power Co.* v. *Carolina*

Envtl. Study Grp., Inc., 438 U.S. 59, 63 (1978). Responsibility for implementing the AEA is currently shared among the Nuclear Regulatory Commission (NRC), which serves as the principal licensing and safety regulator, see 42 U.S.C. 5841-5845; the U.S. Department of Energy (DOE), which oversees federal research and promotional activities, see 42 U.S.C. 5811-5813, 7151(a); and the Environmental Protection Agency (EPA), which establishes generally applicable standards for certain radiation hazards, see, *e.g.*, 42 U.S.C. 2022.[1]

Among other responsibilities, NRC licenses and regulates the transfer, possession, use, and disposal of nuclear materials throughout the nuclear fuel cycle, as needed to "promote the common defense and security" and to "protect health or to minimize danger to life or property." 42 U.S.C. 2201(b). "[S]ource material," including uranium, is regulated upon removal from its place of deposit in nature. 42 U.S.C. 2092; see 42 U.S.C. 2014(z) (defining "'source material'" to include "uranium"); 10 C.F.R. 40.4 (same). "[N]o person may transfer or receive in interstate commerce * * * any source material after removal from its place of deposit in nature" unless such actions are "authorized by a general or specific license issued by [NRC]." 42 U.S.C. 2092; see 42 U.S.C. 2093, 2099; 10 C.F.R. Pt. 40 (implementing regulations).

The AEA requires similar licenses for the transfer or possession of "'special nuclear material,'" which includes uranium that has been "enriched in the isotope 233 or in the isotope 235." 42 U.S.C. 2014(aa); see 42 U.S.C. 2073-2074 (2012 & Supp. III 2015) (licensing requirements); 10 C.F.R. Pt. 70 (implementing regulations). The AEA

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[1] Those functions were allocated among NRC, DOE, and EPA in the 1970s, after the Atomic Energy Commission was abolished. See *Huffman* v. *Western Nuclear, Inc.*, 486 U.S. 663, 666 n.4 (1988).

also requires licenses for the transfer or possession of any "byproduct material" that is generated during nuclear-fuel production or use. See 42 U.S.C. 2014(e)(1)-(4) (defining several categories of "byproduct material"); 42 U.S.C. 2111-2114 (licensing requirements); 10 C.F.R. Pts. 30-39 (implementing regulations). NRC also requires licenses for the operation of nuclear utilization and production facilities, including nuclear power plants, uranium-enrichment facilities, and fuel-fabrication facilities, as well as spent-nuclear-fuel storage installations. See 42 U.S.C. 2014(v) and (cc), 2131-2133; 10 C.F.R. Pts. 50, 52, 72 (implementing regulations).

2. Nuclear source material may be obtained through several means. This case concerns conventional uranium recovery, through which uranium ore is excavated from the ground through open-pit or underground mining and then subjected to above-ground chemical processing. Pet. App. 4a. NRC does not regulate the physical excavation of uranium ore through conventional mining (as opposed to other, "in situ" methods of uranium recovery). See *In re Hydro Res., Inc.*, 63 N.R.C. 510, 512-513 (2006).[2] NRC requirements begin to apply once uranium is removed from its "place of deposit in nature." 42 U.S.C. 2092; 10 C.F.R. 40.3.; p. 3, *supra*.[3]

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[2] "In situ" recovery involves injecting chemicals directly into the earth and pumping the resulting uranium-infused solution to the surface. Pet. App. 4a n.1, 54a-55a. This method is feasible only in certain geological settings, which are not alleged to be present in Virginia. *Id.* at 22a n.2 (Traxler, J., dissenting). NRC regulates the process of "in situ" recovery. See *In re Hydro Res., Inc.*, 63 N.R.C. at 512-513.

[3] NRC has exempted from regulation "unrefined and unprocessed ore containing source material," but any such ore may not be refined or processed without a license. 10 C.F.R. 40.13(b); see 10 C.F.R.

Once excavated, the uranium ore is transferred by truck or conveyor belt to a nearby mill for processing. See U.S. NRC, *Conventional Uranium Mills* (May 15, 2017), https://www.nrc.gov/materials/uranium-recovery/extraction-methods/conventional-mills.html. "Uranium mills are a part of the nuclear fuel cycle," as "[t]hey extract uranium from ore for eventual use in nuclear weapons and powerplants." H.R. Rep. No. 1480, 95th Cong., 2d Sess. Pt. 2, at 25 (1978). "[M]illing" involves physically grinding the ore into particles and then applying chemicals that separate the uranium from the surrounding rock. Pet. App. 54a-55a. This process generates a small quantity of concentrated uranium known as "'yellowcake,'" as well as a large amount of sandy waste known as "[t]ailings." *Id.* at 4a, 54a-55a & n.2 (citation omitted); see H.R. Rep. No. 1480, 95th Cong., 2d Sess. Pt. I, at 11 (1978) (noting that milling 2000 pounds of uranium ore yields "only 1 to 5 pounds of usable uranium"). Tailings are classified as a "byproduct material" under the AEA. 42 U.S.C. 2014(e)(2).

The yellowcake is "sold and shipped off-site for enrichment," Pet. App. 23a (Traxler, J., dissenting), while the tailings are typically stored at a nearby site. Because uranium mill tailings contain several substances that are potentially hazardous to human health, *id.* at 205a, 210a, they are subject to extensive federal regulation. EPA is responsible for promulgating generally applicable health, safety, and environmental standards associated with the processing and disposal of uranium mill tailings. 42 U.S.C. 2022(b)(1)-(2); see 40 C.F.R. Pt. 192 (containing

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40.4 (defining "[u]nrefined and unprocessed ore" as "ore in its natural form prior to any processing, such as grinding, roasting or beneficiating, or refining") (emphases omitted).

standards).[4] NRC implements those standards through regulations and site-specific licensing conditions. 42 U.S.C. 2111 (requiring licenses for byproduct materials); 10 C.F.R. 40.1-40.3, 40.20-40.21, 40.26-40.28, 40.31(h), 40.32, 40.51 (regulating tailings "[b]yproduct [m]aterial" as defined in 10 C.F.R. 40.4); 10 C.F.R. Pt. 40 App. A (establishing "criteria relating to the operation of uranium mills and the disposition of tailings or wastes" from milling) (capitalization omitted).

3. In 1959, Congress amended the AEA to "clarify the respective responsibilities * * * of the States and the [federal government] with respect to the regulation of byproduct, source, and special nuclear materials." 42 U.S.C. 2021(a)(1); see Act of Sept. 23, 1959, Pub. L. No. 86-373, 73 Stat. 688. That amendment empowered NRC to enter agreements that authorize States to license and regulate the transfer, possession, use, and disposal of nuclear source material, byproduct material, and/or sub-critical quantities of special nuclear material. 42 U.S.C. 2021(b). NRC approves such an agreement under Section 2021 if the State has developed a regulatory program that is both "adequate to protect the public health and safety with respect to the materials within the State covered by the proposed agreement" and "compatible with [NRC's] program for the regulation of such materials." 42 U.S.C. 2021(d)(1)-(2). A State that enters

[4] For example, EPA has specified technical requirements for the design of surface impoundments that store tailings, 40 C.F.R. 192.32(a)(1); set maximum allowable groundwater concentrations for specified hazardous substances, 40 C.F.R. 192.32(a)(2); required the installation of a "permanent radon barrier" around nonoperational impoundments, 40 C.F.R. 192.32(a)(3)(i); and mandated monitoring and analysis of radon levels, 40 C.F.R. 192.32(a)(4).

into a Section 2021 agreement may "regulate the materials covered by the agreement for the protection of the public health and safety from radiation hazards." 42 U.S.C. 2021(b); S. Rep. No. 870, 86th Cong., 1st Sess. 12 (1959) (*Senate Report*) (stating that, absent such an agreement, NRC "has exclusive authority to regulate for protection against radiation hazards").

Certain responsibilities, including regulation of "the construction and operation" of nuclear power plants and uranium-enrichment facilities, are reserved to NRC and cannot be delegated to a State. 42 U.S.C. 2021(c). With respect to those responsibilities, Section 2021 gives States an advisory role, allowing them to be heard by NRC before such activities commence within a State. 42 U.S.C. 2021(*l*). Section 2021 also contains a savings clause, which provides that "[n]othing in this section shall be construed to affect the authority of any State or local agency to regulate activities *for purposes other than protection against radiation hazards*." 42 U.S.C. 2021(k) (emphasis added).

B. The Virginia Law

1. In the late 1970s, the "largest known uranium deposit in the United States" was discovered in Pittsylvania County, Virginia. Pet. App. 5a, 216a. Following that discovery, the Virginia General Assembly directed a commission to "evaluate the environmental effects of uranium exploration, mining and milling," and to identify "any possible detriments" from those activities to the "health, safety, and welfare of Virginia citizens." 1981 Va. Acts 1404 (Pet. App. 169a-170a). In 1982, the General Assembly enacted a law that permitted uranium exploration but imposed a one-year moratorium on uranium mining. See 1982 Va. Acts 426 (Pet. App. 170a-177a).

In 1983, the General Assembly extended the moratorium indefinitely. See 1983 Va. Acts 3 (1983 Act) (Pet. App. 177a-189a). It found that, "while uranium mining and milling activity can generate substantial benefits, it also raises a wide range of environmental and other local concerns." Pet. App. 178a. The 1983 Act directed that "permit applications for uranium mining shall not be accepted by any agency of the Commonwealth * * * until a program for permitting uranium mining is established by statute." *Id.* at 177a-178a (emphasis omitted). The 1983 Act also created a working group to consider, *inter alia*, the costs and benefits of permitting development of the Pittsylvania deposit, including consideration of the risk that "radionuclides" generated by "mining, milling and tailings management" could contaminate the surrounding water, air, and plant and animal life. *Id.* at 183a-184a.

In 1985, the commission and working group issued their final report. Pet. App. 219a. The working group observed that "there was no area where [it] had greater concern than on the potential effects of radiation which would be produced by [a] uranium development facility." D. Ct. Doc. 48-14, at 15 (Sept. 11, 2015). A majority of participants recommended lifting the moratorium, but only if the General Assembly "simultaneously" adopted certain recommendations "to assure adequate state regulation of uranium mining and milling." D. Ct. Doc. 48-17, at 8 (Sept. 11, 2015). Those included the "essential" recommendation that Virginia become an "agreement state" under Section 2021, with the right to regulate milling and tailings storage, *id.* at 6; cf. 42 U.S.C. 2021, as well as proposed technical limits on radiological emissions from milling and tailings-storage activities,

see D. Ct. Doc. 48-17, at 6-7. Despite those recommendations, the General Assembly neither lifted the moratorium nor enacted a "comprehensive mining, milling and tailing statute." See D. Ct. Doc. 48-14, at 7.

In 2009, Virginia signed a Section 2021 agreement with NRC. The Commonwealth thereby acquired regulatory authority over "[s]ource materials," "[s]pecial nuclear materials," and specified categories of "[b]y-product materials" within the Commonwealth, Pet. App. 300a; see *id.* at 298a-305a; but the agreement expressly excluded the regulation of uranium mill tailings, see *id.* at 301a (excluding "[t]he regulation of byproduct material as defined in Section 11e.(2) of the [AEA]"); cf. 42 U.S.C. 2014(e)(2) (classifying tailings as byproduct material).

2. For several decades after the discovery of the Pittsylvania County uranium deposit, the owners of that deposit did not pursue efforts to overturn the Commonwealth's mining moratorium. In the mid-2000s, however, uranium prices rose sharply and the landowners lobbied for a repeal of the ban. Pet. App. 222a. The General Assembly, the Governor, and Commonwealth agencies commissioned studies addressing the feasibility, benefits, and risks of potential uranium development. See *id.* at 222a-223a, 227a-228a. In 2013, bills to lift the moratorium were introduced in the General Assembly, but those legislative efforts failed. *Id.* at 228a-229a.

C. The Proceedings Below

Petitioners are the current landowners of the Pittsylvania County uranium deposit. In 2015, petitioners brought suit in federal district court, asserting that the Commonwealth's moratorium was preempted by

the AEA, and seeking declaratory and injunctive relief. Pet. App. 190a-238a.

1. The district court dismissed petitioners' complaint for failure to state a claim. Pet. App. 53a-82a. The court noted petitioners' allegation that the moratorium rested on "radiological safety concerns" associated with milling and tailings management. *Id.* at 68a. The court concluded, however, that the moratorium was not preempted because it applied only to mining, and conventional uranium mining is not regulated by NRC. *Id.* at 71a-80a. The court recognized that the mining ban "might obviate one's decision to mill and manage the mill tailings" in Virginia, but it suggested that "such a consequence [wa]s too far attenuated" to result in preemption. *Id.* at 80a.

2. The court of appeals affirmed. Pet. App. 1a-52a.

a. The court of appeals agreed with the district court that petitioners had failed to state a claim that Virginia's moratorium is preempted. Pet. App. 13a-19a. The court of appeals recognized that "uranium milling and tailings storage" are "regulated by the NRC," and that under Section 2021(k), "[S]tates may therefore not regulate them except for purposes other than protection against radiation hazards." *Id.* at 13a-14a. The court found it dispositive, however, that "the plain language of the Commonwealth's ban does not mention uranium milling or tailings storage," and it declined to "look past the statute's plain meaning to decipher whether the legislature was motivated to pass the ban by a desire to regulate uranium milling or tailings storage." *Id.* at 14a. The court described this Court's decision in *Pacific Gas*, *supra*, as "warn[ing] against the 'unsatisfactory venture' of 'inquiry into legislative motive.'" Pet. App. 14a (quoting *Pacific Gas*, 461 U.S. at

216). The court of appeals also stated that it would be pointless to invalidate the statute based on a finding of improper purpose because the Commonwealth could simply reenact the law "with a different motive." *Ibid.*

The court of appeals further held that Virginia's moratorium was not preempted under conflict-preemption principles. Pet. App. 18a-19a. The court concluded that the moratorium would not pose an obstacle to Congress's objective of encouraging the development and use of nuclear energy because most uranium used in the United States' atomic-energy industry is imported, and because many uranium-extraction facilities in the United States—those on federal lands and those that use "in situ" recovery—are already licensed by NRC and thus beyond the reach of any state ban. *Id.* at 19a.

b. Judge Traxler dissented. Pet. App. 20a-52a. He explained that "established Supreme Court law makes clear that the AEA preempts state statutes enacted for the purpose of protecting against the radiological dangers of activities the AEA regulates," including "uranium milling and tailings management." *Id.* at 52a; see *id.* at 32a-38a. He further noted that, if the allegations in petitioners' complaint were taken as true, the Commonwealth had "banned uranium mining only as a means to prevent milling and tailings management from occurring in Virginia." *Id.* at 27a; see *id.* at 21a n.1, 40a-41a. Because "Congress has taken away a state's ability to limit mining for th[at] particular reason," *id.* at 20a, Judge Traxler concluded that petitioners had stated a valid preemption claim.

Judge Traxler further concluded that petitioners had stated a claim of preemption under conflict-preemption principles. He explained that a uranium-mining ban premised on radiological-safety concerns

would stand as an obstacle to the accomplishment of Congress's objective to permit the private sector to develop nuclear energy "to the maximum extent consistent with the common defense and security and with the health and safety of the public." Pet. App. 47a (quoting 42 U.S.C. 2013(d)). He expressed the view that Virginia had sought to prevent the private sector from developing nuclear energy because the State did "not trust[] that the federal government has sufficiently protected against the radiological dangers of uranium milling and tailings management." *Id.* at 47a-48a.

SUMMARY OF ARGUMENT

I. Petitioners have alleged that Virginia's uranium-mining moratorium is motivated by concern that uranium milling and tailings-management activities may pose nuclear-safety risks. If that allegation is true, the moratorium is preempted because Congress has entrusted such nuclear-safety regulation exclusively to the federal government. The courts below therefore erred in ordering, and upholding, dismissal of petitioners' complaint.

A. The AEA's text and structure demonstrate Congress's intent to reserve for the federal government control over the management of all radiation hazards stemming from activities licensed under the statute. The accompanying legislative history and subsequent agency interpretations confirm the federal government's primacy in this field.

B. The AEA's preemptive effect depends in part on the purpose of the state law at issue. State laws that are "grounded in safety concerns" about AEA-regulated activities encroach upon the field occupied by the federal government, even if the State purports to act within an area of traditional state authority. *Pacific Gas & Elec.*

Co. v. *State Energy Res. Conservation & Dev. Comm'n*, 461 U.S. 190, 213 (1983). That purpose-based approach to field preemption in this sphere is rooted in the text of Section 2021(k), which preserves the States' authority to regulate certain activities "for purposes other than protection against radiation hazards." 42 U.S.C. 2021(k).

C. Petitioners have credibly alleged that Virginia banned uranium mining for the purpose of guarding against the radiation hazards posed by uranium milling and tailings management, which are activities regulated under the AEA. Accordingly, petitioners' complaint should not have been dismissed.

II. If Virginia's uranium-mining ban rests on a legislative judgment that uranium milling and tailings management cannot be conducted safely, it is preempted for the additional reason that it conflicts with federal law.

A. In enacting the AEA, Congress sought to ensure that nuclear technology would be safe enough for widespread development and use. State regulation premised on a contrary judgment that an aspect of nuclear development cannot safely be undertaken stands as an obstacle to the accomplishment and execution of Congress's objectives.

B. The AEA establishes alternative mechanisms through which States can participate in federal regulation of nuclear development. Allowing a State to address radiation hazards by banning uranium mining would conflict with Congress's decision that States should utilize other specific methods to participate in that regulatory process.

ARGUMENT

Because federal law is "the supreme Law of the Land," U.S. Const. Art. VI, Cl. 2, congressional enactments can preempt otherwise permissible state laws. See, *e.g.*, *English* v. *General Elec. Co.*, 496 U.S. 72, 78 (1990). In the absence of express statutory language that defines the scope of a federal law's preemptive effect, state law can be preempted in two ways. *Id.* at 79. First, "state law is pre-empted where it regulates conduct in a field that Congress intended the Federal Government to occupy exclusively." *Ibid.* Second, state law is "pre-empted to the extent that it actually conflicts with federal law," including when "state law 'stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress.'" *Ibid.* (citation omitted).

Under the AEA, the federal government "has occupied the entire field of nuclear safety concerns, except [for] the limited powers expressly ceded to the States." *Pacific Gas & Elec. Co.* v. *State Energy Res. Conservation & Dev. Comm'n*, 461 U.S. 190, 212 (1983). If, as petitioners allege, Virginia banned uranium mining as a means of addressing the radiological hazards associated with uranium milling and tailings management, the Virginia law would fall squarely within the preempted field, even though the immediate object of the ban (uranium mining) is outside the NRC's jurisdiction. A state law motivated by such concerns would also conflict with Congress's determination—buttressed by the conclusions of the expert technical agencies assigned responsibility for such matters—that uranium milling and tailings management can be conducted safely under federal regulation.

I. THE ATOMIC ENERGY ACT OCCUPIES THE FIELD OF NUCLEAR-SAFETY REGULATION, AND IT PREEMPTS ANY STATE URANIUM-MINING BAN THAT IS MOTIVATED BY CONCERNS ABOUT THE RADIOLOGICAL SAFETY OF FEDERALLY REGULATED URANIUM MILLING AND TAILINGS MANAGEMENT

A. The Federal Government Has Exclusive Authority To Regulate Nuclear Safety Except To The Extent That It Has Delegated That Authority To States

1. Through the AEA, the federal government "occupie[s] the entire field of nuclear safety concerns, except [for] the limited powers expressly ceded to the States." *Pacific Gas*, 461 U.S. at 212. Congress first regulated nuclear safety in 1946 by creating a "program for Government control" of nuclear technology that excluded both the private sector and the States. 1946 Act § 1(b)(4), 60 Stat. 756.

When Congress ended that monopoly in 1954 to permit private development of nuclear energy, it did not relinquish federal control over the safety risks related to nuclear energy production, but instead concluded that nuclear source materials must continue to "be regulated in the national interest in order to provide for the common defense and security and to protect the health and safety of the public." 42 U.S.C. 2012(d); see 1954 Act § 2(d), 68 Stat. 921. The 1954 Act created a comprehensive regulatory and licensing scheme that vested a federal agency with responsibility for the radiological safety of each aspect of the nuclear fuel cycle. See pp. 2-6, *supra*. Although States retained their traditional authorities with respect to "the generation, sale, [and] transmission of electric power," 42 U.S.C. 2018; see 1954

Act § 271, 68 Stat. 960, "no significant role was contemplated for the States" regarding "'national security, public health, and safety,'" *English*, 496 U.S. at 81.

In 1959, by establishing the Section 2021 agreement program, Congress created a limited path for States to manage the radiation hazards of activities licensed under the AEA. 42 U.S.C. 2021(b). Under Section 2021, NRC may delegate to a State NRC's regulatory jurisdiction over the transfer, possession, use, and disposal of nuclear source material (including uranium ore), byproduct material (including tailings), and small quantities of special nuclear material (such as enriched uranium). *Ibid.*; see 42 U.S.C. 2014(e)(2) and (z). Pursuant to such an agreement, the State may "regulate the materials covered by the agreement for the protection of the public health and safety from radiation hazards." 42 U.S.C. 2021(b).

In establishing that cooperative program and "clarify[ing] the respective responsibilities under [the AEA] of the States and the [NRC] with respect to the regulation of byproduct, source, and special nuclear materials," 42 U.S.C. 2021(a)(1), Congress provided that nothing in the Section 2021 program would affect the authority of States "to regulate activities for purposes *other than protection against radiation hazards*." 42 U.S.C. 2021(k) (emphasis added). The italicized language "underscore[s] the distinction * * * between the spheres of activity left respectively to the Federal Government and the States." *Pacific Gas*, 461 U.S. at 210. Under that division of responsibilities, absent an agreement between a State and the federal government, "the Federal Government maintains complete control of the safety and 'nuclear' aspects of energy generation," while "the States exercise their traditional authority over the need for additional generating capacity, the

type of generating facilities to be licensed, land use, ratemaking, and the like." *Id.* at 212; see *id.* at 205.

2. The legislative history of the 1959 AEA amendments confirms Congress's intent that the federal government would maintain its primacy in the field of nuclear safety, even with the introduction of state regulation through Section 2021 agreements. The Joint Committee on Atomic Energy explained that Section 2021(k) was "intended to make it clear that the bill does not impair the State authority to regulate activities of AEC [Atomic Energy Commission] licensees for the manifold health, safety, and economic purposes *other than radiation protection*." *Senate Report* 12 (emphasis added). Under that approach, the federal government would retain "exclusive authority to regulate for protection against radiation hazards until such time as the State enters into an agreement with the Commission to assume such responsibility." *Ibid.* That explanation reinforces the conclusion that Congress intended to maintain federal control over radiological safety risks, except where the authority to regulate such risks has been delegated to a State by agreement. Absent such an agreement, States would remain free to regulate the activities of AEC licensees, but not for the purpose of protecting against radiological safety risks.

3. An interpretation by the AEC, the federal agency originally charged with regulating nuclear safety under the AEA, further confirms federal supremacy in the regulation of radiological safety risks. In 1969, the AEC issued a regulation setting forth its general counsel's understanding of Section 2021(k). The regulation states that Congress, "in enacting [Section 2021(k)], intended to preempt to the Federal Government the total respon-

sibility and authority for regulating, from the standpoint of radiological health and safety, the specified nuclear facilities and materials." 34 Fed. Reg. 7273, 7274 (May 3, 1969).[5] That understanding reinforces the conclusion that Congress left no room for States to encroach upon the preempted radiological-safety field.

B. State Laws That Are Grounded In Nuclear-Safety Concerns About AEA-Regulated Activities Are Preempted

This Court has addressed the AEA's preemptive reach on several occasions and has determined that the statute's preemptive effect depends in part on the purpose of the state law at issue. Under that framework, state laws that are "grounded in safety concerns" about AEA-regulated activities like uranium milling and tailings management encroach upon the field occupied by the federal government and are preempted. *Pacific Gas*, 461 U.S. at 213.

1. In *Pacific Gas*, the Court considered a California law that banned new construction of nuclear power plants until a method for permanent disposal of nuclear waste became available. 461 U.S. at 198. After reviewing the relevant statutory provisions and legislative history, the Court concluded that "the Federal Government has occupied the entire field of nuclear safety concerns, except [for] the limited powers expressly ceded to the States." *Id.* at 212; see *Silkwood* v. *Kerr-McGee Corp.*, 464 U.S. 238, 240-241 (1984) (explaining that the Court in *Pacific Gas* had "examined the relationship between federal and state authority in the nuclear energy

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[5] This rule was codified at 10 C.F.R. 8.4. Although 10 C.F.R. Part 8 was subsequently removed, NRC "continues to adhere to the substance of the interpretation in § 8.4." 77 Fed. Reg. 21,625, 21,627 (Apr. 11, 2012).

field" and had "concluded that States are precluded from regulating the safety aspects of nuclear energy").

The Court observed that the AEA gives NRC "exclusive jurisdiction to license the transfer, delivery, receipt, acquisition, possession, and use of nuclear materials," *Pacific Gas*, 461 U.S. at 207, and permits state regulation of such materials only if authorized by agreement, *id.* at 208-209. The court also explained that the AEA's preservation of state authority to "regulate activities for purposes other than protection against radiation hazards," 42 U.S.C. 2021(k), "underscored the distinction" drawn by Congress "between the spheres of activity left respectively to the Federal Government and the States." 461 U.S. at 210. Under that division of responsibility, the federal government "regulate[s] the radiological safety aspects involved" in AEA-regulated activities—there, the "construction and operation of a nuclear plant"—while the States retain their "traditional responsibility" to "determin[e] questions of need, reliability, cost, and other related state concerns" not involving radiological safety. *Id.* at 205.

The *Pacific Gas* Court observed that California had not sought to regulate the *manner* in which a nuclear power plant should be constructed or operated, which would conflict with NRC's exclusive regulatory authority over plant construction and operation and would thus be preempted whether the State had acted out of concern for radiological-safety hazards or for some other reason. 461 U.S. at 212; see 42 U.S.C. 2021(c)(1). Rather, California had sought to regulate the antecedent question *whether* a plant should be constructed, not *how* it should be constructed. 461 U.S. at 212. California had argued that, "although safety regulation of nuclear plants by

States is forbidden," the State could exercise its traditional authority over generation to ban new construction of power plants "until [the State's] safety concerns are satisfied." *Ibid.*; see 42 U.S.C. 2018 (preserving States' authority to regulate "with respect to the generation, sale, or transmission of electric power produced through the use of nuclear facilities licensed by the [NRC]").

This Court "reject[ed] th[at] line of reasoning." *Pacific Gas*, 461 U.S. at 212. The Court explained that, because the federal government had "occupied the entire field of nuclear safety concerns," "[a] state moratorium on nuclear construction grounded in safety concerns [would] fall[] squarely within the prohibited field." *Id.* at 212-213. The Court found that California's moratorium on construction of new power plants survived preemption only because the State had plausibly explained—with reference to legislative reports prepared during the passage of the moratorium—that the purpose of its legislation was to address "economic problems, not radiation hazards." *Id.* at 213; see *id.* at 213-216. In reaching that conclusion, however, the Court made clear that, by giving NRC exclusive responsibility to address nuclear-safety risks, Congress had preempted States from regulating to protect against radiation hazards, even when a State purports to act within the scope of its traditional authority. *Id.* at 212.

2. In its subsequent decision in *English*, *supra*, the Court explained that the AEA establishes two related forms of field preemption. 496 U.S. at 84. Observing that *Pacific Gas* had "defined the pre-empted field, in part, by reference to the motivation behind the state law," the Court reaffirmed that a state law "motivated by safety concerns" about AEA-regulated activities is preempted. *Ibid.* The Court noted that this purpose-

based "approach to defining the field" finds support in the text of Section 2021(k), which recognizes continued state authority "to regulate activities for purposes other than protection against radiation hazards." *Ibid.* (quoting 42 U.S.C. 2021(k)).

The Court in *English* further defined the preempted field to include state regulations that are "'enacted out of nonsafety concerns'" but have a sufficiently "direct and substantial effect" on NRC licensees' decisions "concerning radiological safety levels." 496 U.S. at 84-85 (quoting *Pacific Gas*, 461 U.S. at 212). Thus, "even as * * * part of the pre-empted field is defined by reference to the purpose of the state law in question," another part "is defined by the state law's actual effect on nuclear safety." *Id.* at 84 (recognizing that "a finding of safety motivation" was sufficient, but not necessary, to "place a state law within the pre-empted field").[6] The Court in *English* thus reaffirmed that state law is preempted if it is grounded in concerns about the radiation hazards of activities and materials that are regulated under the AEA—a field occupied by the federal government. *Id.* at 84-85.

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[6] The Court in *English* held that the state-law claim at issue, a tort claim for intentional infliction of emotional distress brought by an employee of a nuclear-fuels production facility, was not preempted under either of those rationales. The Court concluded that the relevant state law was not "motivated by safety concerns," and that the effect of imposing tort liability for intentional infliction of emotional distress would be neither "direct nor substantial enough" to cause employers to alter radiological-safety protocols. 496 U.S. at 84-85.

C. Because Petitioners Have Credibly Alleged That Virginia's Uranium-Mining Ban Was Motivated By Nuclear-Safety Concerns About Federally Regulated Milling And Tailings Management, Their Complaint Should Not Have Been Dismissed

Respondents conceded below that, for purposes of their motion to dismiss petitioners' complaint, Federal Rule of Civil Procedure 12(b)(6) "required [respondents] to accept as true that Virginia enacted the [uranium-mining] moratorium based on radiological safety concerns." J.A. 216. The court of appeals therefore erred in affirming the district court's dismissal of petitioners' complaint. Because petitioners have credibly alleged that the ban is grounded in radiological-safety concerns about uranium milling and tailings management, which are within the federal government's regulatory jurisdiction, and because regulation of those activities for radiological-safety purposes has not been delegated to Virginia in a Section 2021 agreement, petitioners' complaint states a claim that the ban is preempted. That is so despite the fact that conventional uranium mining itself is not regulated by NRC.

1. Petitioners have adequately alleged that Virginia's moratorium falls within the preempted "field of nuclear safety concerns." *English*, 496 U.S. at 82 (citation omitted). Petitioners contend that the Commonwealth has banned uranium mining not because of concerns about mining per se, but because of fears about radiological hazards associated with the next steps of the uranium-development process, which NRC regulates under the AEA. Petitioners have alleged that the "true design" of the moratorium is "to act as an absolute bar on the construction of a tailings management facil-

ity," which Virginia legislators feared would lead to radioactive contamination of the Commonwealth's groundwater and environment. Pet. App. 232a.

If petitioners' allegations are correct, Virginia's moratorium is preempted. The radiological safety of milling and tailings management is subject to exclusive federal oversight, except to the extent that regulatory authority is expressly delegated to States by agreement. Just as "[a] state moratorium on nuclear construction * * * falls squarely within the prohibited field" if it is "grounded in safety concerns" about the operation of NRC-licensed nuclear power plants, *Pacific Gas*, 461 U.S. at 213, a State's moratorium on uranium mining is preempted if that moratorium is grounded in safety concerns about the operation of NRC-licensed milling and tailings-management facilities.

By entering into a Section 2021 agreement with NRC, Virginia has acquired regulatory authority over "[s]ource materials," "[s]pecial nuclear materials," and specified categories of "[b]yproduct materials" within the Commonwealth. Pet. App. 300a; see *id.* at 298a-305a. That agreement, however, expressly excludes authority to regulate uranium mill tailings. See *id.* at 301a (excluding "[t]he regulation of byproduct material as defined in Section 11e.(2) of the [AEA]"); cf. 42 U.S.C. 2014(e)(2) (defining "byproduct material" to include tailings). Within Virginia, the "field of nuclear safety concerns" related to tailings management from the process of uranium milling therefore remains within the regulatory jurisdiction of the federal government. *English*, 496 U.S. at 82 (citation omitted). If the Commonwealth's uranium-mining ban was motivated by such concerns, it is preempted because it encroaches on that federally regulated field.

2. In holding that Virginia's moratorium was not preempted, the court of appeals construed Section 2021(k) to prohibit States from directly regulating, for purposes of protecting against radiological hazards, only "activities" that are regulated under the AEA. Pet. App. 11a. Emphasizing that the moratorium "does not mention uranium milling or tailings storage," *id.* at 14a, the court concluded that the ban is not preempted because the activity it directly regulates—conventional uranium mining—is not regulated under the AEA, *id.* at 11a. The court "decline[d]" to "look past the statute's plain meaning to decipher whether the legislature was motivated" by an impermissible radiological-safety consideration. *Id.* at 14a. The court understood the AEA to preempt state law only when "a state purports to regulate an activity that is also regulated by the [AEA]" *and* the State lacks a "'non-safety rationale' for the state rule." *Id.* at 9a (citation omitted). That approach was misconceived.

a. A State's purposeful effort to address the radiological hazards that it associates with AEA-regulated activities is preempted even if the State attempts to regulate those hazards indirectly, by prohibiting necessary antecedent activities that fall outside direct federal control. The court of appeals' contrary understanding is irreconcilable with *Pacific Gas*. As explained above (pp. 19-20, *supra*), California acknowledged in that case that it could not enact safety regulations for the construction or operation of power plants because NRC exercises authority over plant construction and operation. 461 U.S. at 212; see 42 U.S.C. 2021(c)(1). The State instead contended that it could exercise its authority over generation to ban new construction of power plants altogether "until [the State's] safety concerns are satisfied."

461 U.S. at 212; see 42 U.S.C. 2018. This Court rejected that argument, explaining that "[a] state moratorium on nuclear construction *grounded in safety concerns* [would] fall[] squarely within" the federally occupied nuclear-safety field, even if the State had purported to act within the scope of its traditional authority. 461 U.S. at 212-213 (emphasis added).

The court of appeals in this case described the California law at issue in *Pacific Gas* as involving an activity "clearly committed to the NRC's regulatory authority." Pet. App. 10a n.2 (citation omitted). As the foregoing discussion demonstrates, that is incorrect. *Pacific Gas* involved two California laws: Section 25524.1(b), which required case-by-case approval of a proposed nuclear power plant's capacity to store spent nuclear fuel rods, and Section 25524.2 (Cal. Pub. Res. Code §§ 25524.1(b), 25524.2 (West 1977)), which banned all new nuclear power plants until a permanent nuclear-waste disposal solution was developed. 461 U.S. at 197-198.

The court of appeals suggested that the Court in *Pacific Gas* had analyzed the first provision, which the court described as regulating an activity—power-plant construction—that was committed to NRC's regulatory authority. Pet. App. 9a-10a & n.2. That understanding appears to underlie the court's determination that purpose-based preemption analysis is appropriate only when "a state purports to regulate an activity that is also regulated by the [AEA]." *Id.* at 9a. In fact, however, the Court in *Pacific Gas* analyzed only the second provision (discussed above) because it determined that the first was not ripe for review. 461 U.S. at 203. After concluding that the second provision (barring construction of nuclear power plants) did *not* directly regulate a subject committed to NRC's regulatory authority, the

Court looked to the purpose of the law to determine whether it encroached on the federal field of nuclear safety. *Id.* at 212-213. Contrary to the court of appeals' belief, the Court in *Pacific Gas* thus did not limit purpose-based preemption analysis to direct state regulation of AEA-regulated activities. See *id.* at 213 (finding it "necessary to determine whether there [wa]s a nonsafety rationale" for California's ban on plant construction); *English*, 496 U.S. at 84 (reaffirming that "part of the pre-empted field is defined by reference to the purpose of the state law in question"); 42 U.S.C. 2021(k).

b. The court of appeals also cited other language in which the *Pacific Gas* Court had commented on the difficulty of ascertaining "legislative motive." Pet. App. 14a (quoting *Pacific Gas*, 461 U.S. at 216). The *Pacific Gas* Court made those observations, however, only after stating that it was "necessary to determine whether there [wa]s a nonsafety rationale for" the challenged California law, 461 U.S. at 213; that California had asserted an economic, non-safety-related rationale for that law, *ibid.*; and that the court of appeals in that case had found the law to be "directed towards purposes other than protection against radiation hazards," *id.* at 214 (citation omitted). Here, by contrast, the Fourth Circuit simply "decline[d] to examine why the Commonwealth chose to ban uranium mining," Pet. App. 15a, thus treating as irrelevant petitioners' allegation that Virginia's mining moratorium is intended to address radiological-safety hazards associated with milling and tailings-management activities. That was error. Given the relevance of legislative purpose to the AEA preemption inquiry, and petitioners' credible allegations that Virginia has banned uranium mining to address concerns about the radiological-safety aspects of milling and tailings management, petitioners'

complaint states a valid preemption claim and should not have been dismissed under Rule 12(b)(6).[7]

3. Under the approach taken by the court below, a State could effectively subvert federal regulatory judgments in the field of nuclear safety simply by choosing, as the immediate object of state regulation, an antecedent activity that is not itself subject to federal regulation under the AEA. That approach would provide an easy roadmap for evasion of Congress's judgments regarding the States' carefully defined and limited role in this sphere.

a. In *Skull Valley Band of Goshute Indians* v. *Nielson*, 376 F.3d 1223 (2004), cert. denied, 546 U.S. 1060 (2005) (*Skull Valley*), the Tenth Circuit considered a series of Utah laws motivated by concerns about the storage and transportation of spent nuclear fuel (SNF). Although some of the challenged laws facially regulated SNF, others did not. One provision converted to state control a county road that led to a proposed SNF storage site. *Id.* at 1251-1252. Another provision restricted counties' ability to provide "law enforcement, fire protection, waste and garbage collection" to SNF storage facilities. *Id.* at 1247. A third provision abolished limited liability for stockholders in companies operating SNF facilities. *Id.* at 1250-1251.

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[7] Because petitioners' complaint was disposed of at the motion-to-dismiss stage, and the Fourth Circuit took as true petitioners' allegation that Virginia's moratorium was grounded in radiological-safety concerns about uranium milling and tailings management, this Court need not address what evidence would be necessary or sufficient to prove those allegations on remand. Rather, the Court need only decide whether these allegations, if proved, would provide a sound basis for holding that the Virginia moratorium is preempted.

Although the AEA does not regulate state roads, municipal services, or shareholder-liability rules, the Tenth Circuit applied the preemption test set forth in *Pacific Gas* and concluded that "a state cannot use its authority to regulate" such matters "as a means of regulating radiological hazards" associated with NRC-licensed activities. *Skull Valley*, 376 F.3d at 1248. The court ultimately found each provision preempted, based on evidence that the State had enacted them to discourage the transportation and storage of spent nuclear fuel "for reasons of radiological safety." *Id.* at 1252; see *id.* at 1245-1248, 1250-1253. The Tenth Circuit thus correctly ensured that Utah could not effectively preclude, based on nuclear-safety concerns, AEA-regulated transportation and storage activities that the State lacked power to regulate directly.

In this case, the court below attempted to distinguish *Skull Valley* by noting that "all but two of the challenged Utah laws specifically mentioned this NRC-regulated activity [*i.e.*, storage of SNF]," and that the remaining two provisions "w[ere] packaged with two other transportation regulations targeting [SNF] directly." Pet. App. 16a. But if that distinction is treated as controlling, a State can effectively prevent federally regulated conduct that it views as causing nuclear-safety hazards, by proscribing necessary precursors to that conduct, so long as it is careful to forgo any express statutory reference to nuclear-safety concerns or federally regulated activities. The Fourth Circuit's approach would provide an easy means for States to subvert Congress's determinations regarding the appropriate allocation of power between federal and state governments.

b. This Court has recognized in other contexts that a State cannot escape preemption simply by regulating

a stage of the production process or stream of commerce that lies outside the area of direct federal regulation. In *National Meat Ass'n* v. *Harris*, 565 U.S. 452 (2012), the Court considered a California law that prohibited slaughterhouses from selling meat products of nonambulatory animals. *Id.* at 459. California argued that its law was not preempted by the Federal Meat Inspection Act, 21 U.S.C. 601 *et seq.*, which provides that States may not impose requirements on slaughterhouse operations that exceed or differ from federal requirements, 565 U.S. at 457, because the challenged state law focused not on slaughterhouse *operations* but rather on commercial *sales*, which are traditionally subject to state regulation. *Id.* at 463-464. The Court rejected that argument and found the state regulation preempted. The Court explained that, although the state law nominally regulated sales, its inevitable effect was to require slaughterhouses to structure their operations in a different way. *Id.* at 464.

Likewise in *Engine Manufacturers Ass'n* v. *South Coast Air Quality Management District*, 541 U.S. 246 (2004), the Court considered a set of local rules that barred public and private fleet operators from buying vehicles that did not comply with the city's emission requirements. *Id.* at 249. The Court found the local rules preempted by a federal law that prohibited any state or local "standard[s] relating to the control of emissions from new motor vehicles." *Id.* at 251. The Court explained that, although the local rules did not compel manufacturers of new motor vehicles to meet any new emissions limits, the manufacturer's federally protected right to sell vehicles would be "meaningless in the absence of a purchaser's right to buy them." *Id.* at 255; see *American Trucking Ass'ns* v. *City of Los Angeles*,

569 U.S. 641, 652 (2013) ("We have often rejected efforts by States to avoid preemption by shifting their regulatory focus from one company to another in the same supply chain."); *Rowe* v. *New Hampshire Motor Transp. Ass'n,* 552 U.S. 364, 371-373 (2008) (finding preemption even though the State's regulation "t[old] *shippers* what to choose rather than *carriers* what to do").

So too here, where Congress has excluded States from the management of nuclear-safety hazards, Virginia cannot escape preemption simply by precluding a necessary antecedent activity (uranium mining) instead of acting on the nuclear fuel cycle itself. If petitioners can show that Virginia has banned uranium mining in order to prevent radiation hazards posed by uranium milling and tailings management, then Virginia has encroached on a field reserved for the federal government and the state law is preempted.

II. IF VIRGINIA'S URANIUM-MINING BAN WAS MOTIVATED BY RADIOLOGICAL-SAFETY CONCERNS, IT IS BARRED BY CONFLICT-PREEMPTION PRINCIPLES BECAUSE IT IS INCONSISTENT WITH THE JUDGMENT OF FEDERAL AUTHORITIES THAT URANIUM MILLING AND TAILINGS MANAGEMENT CAN BE SAFELY CONDUCTED IF PERFORMED IN ACCORDANCE WITH FEDERAL REQUIREMENTS

A state law that bans uranium mining based on radiological-safety concerns about milling and tailings management also runs afoul of conflict-preemption principles. Under the AEA, one of Congress's primary objectives is to ensure that nuclear technology is safe enough for widespread development and use. *Pacific Gas*, 461 U.S. at 213. A state law that aims to protect against radiation hazards by preventing nuclear development—as Virginia's ban is alleged to have done

here—would "stand[] as an obstacle to the accomplishment and execution" of that objective. *English*, 496 U.S. at 79 (citation omitted).

A. This Court recognized in *Pacific Gas* that "[a] state prohibition on nuclear construction for safety reasons" would "be in the teeth of the [AEA]'s objective to insure that nuclear technology be safe enough for widespread development and use—and would be pre-empted for that [additional] reason." 461 U.S. at 213. Such a state prohibition would subvert the federal government's implementation of the AEA because "a state judgment that nuclear power is not safe enough to be further developed would conflict directly with the countervailing judgment of the NRC." *Ibid.*

In eliminating the federal monopoly over nuclear technology, Congress sought to encourage private parties to develop and use nuclear energy, consistent with public health and safety. 42 U.S.C. 2013(d). Here, Virginia has allegedly "interfere[d] with the objective of the federal regulation" by deciding for itself that milling and tailings management cannot be safely undertaken, *Pacific Gas*, 461 U.S. at 219, thus "unilaterally * * * prevent[ing] the involvement of the very private-sector forces that the [AEA] was designed to unleash." Pet. App. 47a-48a (emphasis omitted) (Traxler, J., dissenting). Congress committed those safety considerations to the federal government's oversight. If petitioners' allegations are true, Virginia's moratorium has "circumvented the AEA's requirements and frustrated its objectives" by intentionally "prevent[ing] the occurrence of" activities that Congress intended the federal government to regulate, for reasons committed to the federal government's jurisdiction. *Id.* at 21a, 52a.

To be sure, "Congress did not intend that nuclear power be developed 'at all costs,'" and it generally left States free to address concerns other than radiological safety. *Pacific Gas*, 461 U.S. at 200; see *id.* at 222-223. But Congress and executive branch agencies have made the judgment that milling and tailings management may be undertaken safely under federal regulations. *Id.* at 213. A moratorium intended to render such activities infeasible, based on a State's disagreement with that federal safety judgment, "stands as an obstacle" to the fulfillment of Congress's objectives. *English*, 496 U.S. at 79 (citation omitted).

B. A state law that bans uranium mining in order to prevent radiological hazards purportedly associated with downstream AEA-regulated activities also conflicts with Congress's chosen system for state participation in the regulatory field of nuclear-safety concerns. Under the AEA, any State that is concerned about radiological hazards from uranium milling and tailings management may seek NRC's authorization to regulate uranium mill tailings. See pp. 6-7, *supra*; 42 U.S.C. 2021. If granted that authority, a State may even impose radiological-safety standards that are "more stringent than" those adopted and enforced by NRC. 42 U.S.C. 2021(*o*)(2). NRC continues to regulate these activities in the national interest, however, and "[i]f the NRC determines that a State has a program that disrupts the orderly pattern of regulation among the collective regulatory efforts of the NRC and other Agreement States, i.e., creates conflicts, gaps, or duplication in regulation, the program would be found not compatible." 62 Fed. Reg. 46,517, 46,521 (Sept. 3, 1997).

Congress has separately permitted States to address certain low-level radiation hazards. 42 U.S.C. 2023(a).

Thus, States may directly regulate "on the basis of radiological hazard" the disposal or off-site incineration of low-level radioactive waste, "if the [NRC] * * * exempts such waste from regulation." *Ibid.*; see 42 U.S.C. 2021b(9)(A)(i) (excluding uranium mill tailings from the definition of "low-level radioactive waste"). States concerned about the safety of AEA-regulated activities may also participate in NRC licensing and rulemaking proceedings and may seek judicial review of NRC's determinations if they are aggrieved. See *Entergy Nuclear Vermont Yankee, LLC* v *Shumlin*, 733 F.3d 393 (2d Cir. 2013); *Skull Valley*, 376 F.3d at 1254. And even with respect to the construction and operation of nuclear power plants, where Congress has prohibited the federal government from delegating regulatory authority to a State, see 42 U.S.C. 2021(c), NRC must notify a State of any license application filed with NRC and must afford the State a reasonable opportunity to express its view concerning whether the application should be granted. 42 U.S.C. 2021(*l*).

Congress has thus established very specific mechanisms for state involvement in addressing radiological-safety hazards. Pursuant to one such statutory method, Virginia has entered into a Section 2021 agreement with NRC, but the Commonwealth declined to seek authority to regulate the radiological-safety aspects of uranium mill tailings. See pp. 9, 23, *supra*. Petitioners allege that the Commonwealth has attempted to address the same concerns through the alternative means of banning uranium mining. If that was in fact the Commonwealth's motivation, Virginia has impermissibly second-guessed the federal government's judgment that uranium milling and tailings management are safe enough

to proceed under federal standards. See *Gade* v. *National Solid Wastes Mgmt. Ass'n*, 505 U.S. 88, 98-101 (1992) (opinion of O'Connor, J.) (holding that federal law preempted an Illinois attempt to enforce training standards for hazardous-waste workers that were stricter than federal standards without using the mandated process of an approved state plan). That conflict with the judgment of federal regulatory authorities, and with Congress's chosen methods for state involvement in the sphere of nuclear safety, provides an additional ground for concluding that petitioners' complaint states a claim of federal preemption.

CONCLUSION

The judgment of the court of appeals should be reversed, and the case should be remanded for further proceedings.

Respectfully submitted.

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