No. 16-1275

In The Supreme Court of the United States

VIRGINIA URANIUM, INC., *et al.*,

Petitioners,

v.

JOHN WARREN, *et al.*,

Respondents.

On Writ Of Certiorari To The United States Court Of Appeals For The Fourth Circuit

BRIEF FOR PETITIONERS

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QUESTION PRESENTED

In *Pacific Gas & Electric Co. v. State Energy Resources Conservation & Development Commission* ("*PG&E*"), 461 U.S. 190, 212 (1983), this Court held that the Atomic Energy Act ("AEA") "has occupied the entire field of nuclear safety concerns," and a state law that is "grounded in [radiological] safety concerns falls squarely within the prohibited field." *Id*. at 213. Because the field preempted by the Act is "defined . . . , in part, by reference to the motivation behind the state law," *English v. General Electric Co.*, 496 U.S. 72 (1990), the lower courts have uniformly held that "a state cannot use its authority" over activities indisputably subject to State regulation as a pretextual "means of regulating radiological hazards" arising from activities regulated by the Nuclear Regulatory Commission pursuant to the AEA. *Skull Valley Band of Goshute Indians v. Nielson*, 376 F.3d 1223, 1247–48 (10th Cir. 2004). *Accord*, *e.g.*, *Entergy Nuclear Vermont Yankee, LLC v. Shumlin*, 733 F.3d 393, 416 (2d Cir. 2013).

In contrast, a divided panel of the court below held that so long as a challenged law "does not [on its face] purport to regulate an activity within the [AEA]'s reach," courts may *not* "conduct a pretext analysis to ascertain [the] legislature's true motive." Pet.App.15a, 18a. Under the ruling below, courts may *not* "look past the statute's plain meaning to decipher whether the legislature was motivated" by radiological safety concerns. Pet.App.14a.

The question presented is:

Does the AEA preempt a state statute that on its face regulates an activity within the regulatory

QUESTION PRESENTED—Continued

jurisdiction of the States (here uranium mining), but has the purpose and effect of regulating the radiological safety hazards of activities within the jurisdiction of the Nuclear Regulatory Commission (here, the milling of uranium ore after it is mined and the management of the resulting uranium tailings)?

PARTIES TO THE PROCEEDING

Petitioners Virginia Uranium, Inc., Coles Hill, LLC, Bowen Minerals, LLC, and Virginia Energy Resources, Inc. were the plaintiffs before the District Court and the plaintiffs-appellants in the Court of Appeals.

Respondents John Warren, in his official capacity as Director of the Virginia Department of Mines, Minerals and Energy, Bradley C. Lambert, in his official capacity as Deputy Director of the Virginia Department of Mines, Minerals and Energy, and James P. Skorupa, in his official capacity as Director of the Virginia Department of Mines, Minerals and Energy's Division of Mineral Mining, were defendants before the District Court and defendants-appellees in the Court of Appeals. Conrad Spangler, the former Director of the Virginia Department of Mines, Minerals and Energy, was also initially docketed by the Court of Appeals as an appellee, but the current director, John Warren, was substituted in his place on January 5, 2016, pursuant to FED. R. APP. P. 43(c)(2).

CORPORATE DISCLOSURE STATEMENT

The disclosure statement in the Petition for Writ of Certiorari remains accurate.

TABLE OF CONTENTS

TABLE OF CONTENTS—Continued

TABLE OF AUTHORITIES

TABLE OF AUTHORITIES—Continued

TABLE OF AUTHORITIES—Continued

TABLE OF AUTHORITIES—Continued

TABLE OF AUTHORITIES—Continued

INTRODUCTION

Recognizing that atomic power can make a vital "contribution to the common defense and security and the national welfare," Congress has since the dawn of the atomic age provided that this unprecedented source of energy must be regulated "by the United States." 42 U.S.C. §§ 2012(e), 2013(c). To secure "the national interest," *id.* § 2012(d), Congress therefore carefully delineated the boundary lines between state and federal authority over nuclear materials. Under the Atomic Energy Act ("AEA"), "the federal government has occupied the entire field of nuclear safety concerns," *Pacific Gas & Elec. Co. v. State Energy Res. Conservation & Dev. Comm'n* ("*PG&E*"), 461 U.S. 190, 212 (1983), while the States are left with authority "to regulate activities for *purposes other than* protection against radiation hazards," 42 U.S.C. § 2021(k) (emphasis added). This division of regulatory authority ensures that duplicative and conflicting requirements cannot prevent the nuclear industry from "mak[ing] the maximum contribution to the common defense and security and the national welfare." *Id.* §§ 2013(c), 2021(a)(3). And because Congress determined that the federal Nuclear Regulatory Commission ("NRC" or "Commission") "was more qualified" than State regulators "to determine what type of safety standards should be enacted in this complex area," *Silkwood v. Kerr-McGee Corp.*, 464 U.S. 238, 250 (1984), federal jurisdiction over radiological safety is also necessary "to protect the health and safety of the public," 42 U.S.C. § 2012(e).

The provision governing the preemptive scope of the AEA limits state authority based on *the purpose* for which States may act, not simply *the activities or materials* their laws may regulate. To eliminate any doubt about the regulatory domain denied to the States, Congress twice identified the prohibited purpose. Thus, while States may "regulate activities for purposes other than protection against radiation hazards," they *may not*, absent a specific agreement with the NRC, regulate "for the protection of the public health and safety from radiation hazards" entrusted to the care of the NRC. *Id.* § 2021(b), (k). As this Court has put the point, Congress has thus "defined the pre-empted field, in part, by reference to the motivation behind the state law." *English v. General Elec. Co.*, 496 U.S. 72, 84 (1990).

Accordingly, as the Court's landmark decision in *PG&E* makes clear, even where a State *purports* to take an action unquestionably within its sphere, it remains "necessary to determine [the] . . . rationale" for the law, and if it is "grounded in safety concerns" related to radiological materials within the exclusive jurisdiction of the NRC, then it "falls squarely within the prohibited field." 461 U.S. 212–13. For the last half-century, the atomic energy industry has grown and developed based upon this division of regulatory turf, with federal courts deploying the AEA's purpose-based preemption test to strike down state and local attempts to openly or surreptitiously regulate radiological safety based on localist concerns, not national interests. *See*, *e.g.*, *Entergy Nuclear Vermont Yankee,*

LLC v. Shumlin, 733 F.3d 393, 416–20 (2d Cir. 2013); *Skull Valley Band of Goshute Indians v. Nielson*, 376 F.3d 1223, 1246–52 (10th Cir. 2004).

The approach adopted by the Fourth Circuit panel majority in this case upends this equilibrium. The Commonwealth of Virginia has banned the mining of the largest deposit of uranium in the United States. Although framed as a moratorium on uranium *mining*—an activity within Virginia's jurisdiction—there is no doubt, as Respondents and both courts below have conceded at this stage in the litigation, that the ban is motivated by concerns about the radiological safety of activities which lie within *the NRC*'s exclusive ambit: the milling of the ore that takes place after it is mined, and the storage of the waste rock, or "tailings," left behind. Because Virginia's ban is thus "grounded in [radiological] safety concerns" relating to activities that are within the jurisdiction of the NRC, it "falls squarely within the prohibited field," under the plain text of the AEA and this Court's unambiguous case law. So it cannot stand. *PG&E*, 461 U.S. at 213.

The panel majority below nevertheless upheld Virginia's uranium ban. In the teeth of Congress's instructions and this Court's teaching, the majority refused "to look past the statute's plain meaning to decipher whether the legislature was motivated" by radiological safety concerns relating to uranium milling and tailings storage, Pet.App.14a, even though the Commonwealth itself conceded this was in fact its purpose, Pet.App.29a (Traxler, J., dissenting). The panel majority reasoned that the inquiry into a state law's

"rationale" demanded by the AEA is only necessary when "a state *purports* to regulate an activity that is also regulated by the Act." Pet.App.9a (emphasis added). And because Virginia *purported* to ban only uranium mining, the majority refused to undertake "a pretext analysis to ascertain [the] legislature's true motive." Pet.App.15a.

The majority's approach is irreconcilable with the plain language of the AEA and this Court's precedent. It is in the *very nature* of an inquiry into a state law's purpose that the inquiry must go forward even if *the face of the law disclaims the impermissible purpose*. The literacy tests of the Jim Crow South were not insulated from scrutiny because they did not *purport* to limit the right to vote based on race. By establishing a preemption standard based on "the motivation behind the state law," *English*, 496 U.S. at 84, Congress has thus instructed the courts to determine whether a State's purpose—its *true* purpose—is "to regulate the materials" entrusted to the NRC's care "for the protection of the public health and safety from radiation hazards" *even if* the State's law *purports* to govern materials and activities left within its own jurisdiction. 42 U.S.C. § 2021(b). "[A] state cannot use its authority" over non-preempted matters "as a means of regulating radiological hazards." *Skull Valley*, 376 F.3d at 1248.

The Fourth Circuit's refusal to "conduct a pretext analysis," Pet.App.15a—in a case where *the pretext is admitted*—amounts to nothing less than a nullification of the AEA's core purposes of promoting atomic energy and ensuring that matters of radiological safety are

left to the care of the NRC. The approach adopted below is effectively a guidebook for every state or local official wishing to frustrate the development of atomic energy—based on local, not national, interests—explaining how they may ban nuclear development while circumventing the AEA's preempted field. This Court should reverse the decision below and reaffirm that when a State law is "grounded in safety concerns" that Congress entrusted to the NRC, it "falls squarely within the prohibited field." *PG&E*, 461 U.S. at 213.

OPINIONS BELOW

The panel opinion of the Court of Appeals is reported at 848 F.3d 590 and reproduced in the Appendix to the Petition for Writ of Certiorari at Pet.App.1a. The order of the District Court granting Respondents' motion to dismiss is reported at 147 F. Supp. 3d 462 and reproduced at Pet.App.53a.

JURISDICTION

The Court of Appeals entered judgment on February 17, 2017. The petition for writ of certiorari was filed on April 21, 2017, and granted on May 21, 2018. This Court has jurisdiction under 28 U.S.C. § 1254(1).

CONSTITUTIONAL PROVISIONS AND STATUTES INVOLVED

The relevant portions of Article VI of the United States Constitution; Atomic Energy Act, Title 42, Chapter 23 of the United States Code; Title 10, Part 40 of the Code of Federal Regulations; Title 45.1 of the Virginia Code; and the Acts of the General Assembly of the Commonwealth of Virginia are reproduced at Pet.App.83a.

STATEMENT

I. Domestic Production and Use of Uranium and the Coles Hill Deposit

1. Uranium is used primarily for the commercial and military production of atomic energy, making it a critically important natural resource. At the outset of the atomic age, Congress recognized "the benefits of peaceful applications of atomic energy," and thus acted "to encourage widespread participation in the development and utilization of atomic energy for peaceful purposes." 42 U.S.C. § 2013(d), (e). Under the federal superintendence that Congress established in 1954, as interpreted by this Court in the *PG&E* case, nuclear reactors powered by uranium have come to generate nearly 20 percent of the electricity consumed in the

United States—all without significant production of greenhouse gases. Compl., Pet.App.202a.[1]

Uranium is also critical to national security. It is a necessary ingredient, of course, in our arsenal of nuclear weapons. Pet.App.4a. And it also powers our Nation's fleet of over 80 nuclear submarines and aircraft carriers. Pet.App.397a. As the United States has emphasized in briefing before this Court, uranium is necessary to "the United States' ability to produce materials critical to military operations," and ensuring its domestic supply is "a matter of compelling importance to U.S. national security interests." Petition for Writ of Certiorari at 30, 31, *United States v. Eurodif, S.A.*, No. 07-1059 (Feb. 2008), Pet.App.347a, 349a.

Ninety-four percent of the uranium used to supply the Nation's atomic energy needs is imported. Pet.App.352a. Even more troubling, 17 percent of those imports come from Russia, and another 22 percent come from Russia-allied states Kazakhstan and Uzbekistan. Pet.App.353a. The United States thus relies on *its geopolitical rivals* to supply nearly 40 percent of its need for this critical resource—and we rely on other foreign sources for the great bulk of the remainder.

Accordingly, the political branches have repeatedly emphasized the United States' acute economic and strategic interest in securing a domestic supply of

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[1] Because this case was resolved on a motion to dismiss, the allegations in Petitioners' complaint must be accepted as true for purposes of this Court's review. *Hernandez v. Mesa*, 137 S. Ct. 2003, 2005 (2017).

uranium. For instance, federal legislation gives the Secretary of Energy "a continuing responsibility for the domestic uranium industry to encourage the use of domestic uranium," in furtherance of "the national need to avoid dependence on imports" of the material. 42 U.S.C. §§ 2296b-3(a), 2296b-6(a). The Department of the Interior recently recognized uranium as a "critical mineral" that is "vital to the Nation's security and economic prosperity," emphasizing that our dependency on foreign sources for the material "creates a strategic vulnerability for both its economy and military." Final List of Critical Minerals 2018, 83 Fed. Reg. 23,295 (May 18, 2018). And numerous members of Congress have repeatedly stressed that establishing a domestic source of uranium—and curbing our reliance on Russian-controlled sources—is a critical national security imperative. *See*, *e.g.*, Pet.App.381a (Statement of Sen. Portman); *see also* Brief of Senator Tom Cotton *et al.* as *Amici Curiae* in Support of Petitioners at 14–20 (May 25, 2017).

2. Petitioners own a deposit of approximately 119 million pounds of uranium ore that lies below the Coles Hill estate in Pittsylvania County, Virginia. Compl., Pet.App.201a. It is the largest natural deposit of uranium in the United States and one of the largest in the world, and its energy-generating potential is enormous. *Id.* The development of this massive resource would also be economically advantageous for the region on a vast scale, leading to the creation of an estimated 1,052 annual jobs and nearly $5 billion of net revenue for local businesses. Compl., Pet.App.202a.

Conventional uranium mining involves three basic processes: mining, milling, and tailings management. First, the raw ore that contains the uranium must be extracted from the ground. Compl., Pet.App.203a. Second, the uranium ore must then be milled, or processed into usable form. *Id.* A uranium mill grinds the uranium ore into a sand, which is then run through either an acidic or alkaline solution to separate the uranium from the waste rock commonly known as "tailings." *Id.* The uranium is then concentrated and dried into "yellowcake," which is commercially sold and shipped off-site for enrichment. *Id.* Finally, the tailings, which remain radioactive, must be permanently stored in a secure tailings management facility.

Like any other human activity, uranium development is not risk-free. But numerous studies have concluded that if done in accordance with modern mining techniques and in compliance with the rigorous health and safety regulations promulgated by the Commission, the risk posed by uranium development is negligible. For example, an independent study of the radiological risks involved in developing the Coles Hill deposit concluded that if the uranium were developed according to best practices, the *most-exposed* resident of the area surrounding the operation would be exposed to only an additional 7.8 millirems of radiation annually. J.A.114. That amounts to a tiny fraction of the 620 millirems of radiation the average American is exposed to each year. Compl., Pet.App.205a. Indeed, a typical adult is exposed to nearly 7.8 additional

millirems each time they take a round-trip, coast-to-coast airplane flight. *Radiation from Air Travel*, CENTERS FOR DISEASE CONTROL (Mar. 2, 2016), http://goo.gl/IVsR76. And because of background variations in radiation, the average Virginia resident would be exposed to over *twenty-seven times* this amount annually merely by moving across the border to Maryland. *See* John Mauro & Nicole M. Briggs, *Assessment of Variations in Radiation Exposure in the United States*, U.S. ENVTL. PROT. AGENCY at 4 tbl.1 (July 15, 2005), https://goo.gl/kgXiun (average background radiation level in Maryland 215 millirems/year higher than in Virginia).

II. The Scope of Federal Authority over Atomic Energy

1. Shortly after the Manhattan Project first succeeded in detonating an atomic bomb, Congress enacted the AEA to provide for federal regulation of the new source of energy. The initial version of the Act, passed in 1946, made "the use, control and ownership of nuclear technology . . . a federal monopoly." *PG&E*, 461 U.S. at 206; *see* Atomic Energy Act of 1946, Pub. L. No. 79-585, 60 Stat. 755. Over the next several years, however, it became apparent that "the national interest would be best served if the Government encouraged the private sector to become involved in the development of atomic energy for peaceful purposes under a program of federal regulation and licensing." *PG&E*, 461 U.S. at 207.

In 1954, therefore, Congress amended the AEA to end the federal monopoly on the production and use of atomic power, instead "providing for licensing of private construction, ownership, and operation of commercial nuclear power reactors" and other facilities. *Id*. And because Congress determined that the federal NRC "was more qualified to determine what type of safety standards should be enacted in this complex area" than the States, it also vested the NRC with exclusive authority to establish regulatory limits and controls necessary to protect the public health and safety. *Silkwood*, 464 U.S. at 250.[2]

The NRC establishes and enforces these regulatory limits and controls primarily through the use of its licensing authority. The AEA requires that anyone who wishes to "transfer or receive in interstate commerce, manufacture, produce, transfer, acquire, own, possess, import, or export" any radioactive "byproduct material"—specifically defined to include "the tailings or wastes produced by the extraction or concentration of uranium"—must first receive a license from the NRC. 42 U.S.C. §§ 2014(e)(2), 2111(a)–(b). Because uranium milling and tailings storage—the second and third stages of uranium development discussed above—involve, *inter alia*, the "produc[ing]" and "possess[ing]" of byproduct material, both processes are

[2] Prior to the 1970s, the licensing and public health and safety regulatory functions of the NRC were carried out by its predecessor, the Atomic Energy Commission. *See Huffman v. Western Nuclear, Inc.*, 486 U.S. 663, 666 n.4 (1988). For ease of reference, we refer to the agency as the NRC or the Commission without regard to this change.

exclusively regulated by the NRC, *id.* § 2111(a). Respondents have never disputed that the States may not directly regulate those activities.

The Act also requires an NRC license for the transfer, delivery, or possession of "source material," which is defined to include uranium. *Id.* § 2014(z). But because this license is only required for uranium "after removal from its place of deposit in nature," *id.* § 2092, the Commission determined early on that its licensing authority does not extend to conventional uranium mining.[3] Congress chose not to regulate uranium mining itself because it concluded that (i) ordinary mining itself does not pose serious radiological hazards; and (ii) regulation of uranium mining would undermine Congress's policy of encouraging the development of atomic energy by discouraging uranium mining and prospecting. S. REP. NO. 79-1211, at 18 (1946), Pet.App.373a; *see also Atomic Energy: Hearings on H.R. 4280 Before the H. Comm. on Military Affairs*, 79th Cong. 125 (1945), Pet.App.376a.

2. While it has limited authority over the first stage of uranium production, the NRC has plenary, exclusive jurisdiction over the second and third stages—milling and tailings storage. And the Commission has exercised this exclusive jurisdiction to establish and implement detailed and extensive regulations

[3] The NRC does, however, exercise exclusive jurisdiction over the modern "in situ" technique of uranium mining, which involves pumping chemicals into a uranium deposit to dissolve and separate the uranium from the surrounding ore underground. J.A.71–72.

governing the design, construction, and operation of uranium mills and tailings management facilities. 10 C.F.R. Pt. 40, App. A. In particular, the NRC's regulations go to great lengths to ensure that tailings are permanently stored in a manner that protects the public health and safety from radiological hazards.

The NRC's regulations govern, first, *where* a tailings management facility may be constructed. Tailings facility sites must ensure the "permanent isolation of tailings and associated contaminants by minimizing disturbance and dispersion by natural forces, and . . . without ongoing maintenance." *Id.* Once a site is chosen, the Commission requires that a tailings disposal facility either be placed below grade "in mines or specially excavated pits," or in an above-grade facility that is designed to "provide reasonably equivalent isolation of the tailings from natural erosional forces." *Id.*

The NRC also regulates the design and manufacture of the liner that must be placed at the bottom of the tailings storage facility. The liner must be "designed, constructed, and installed to prevent any migration of wastes out of the impoundment to the adjacent subsurface soil, groundwater, or surface water," and must be "[c]onstructed of materials that have appropriate chemical properties and sufficient strength and thickness." *Id.* And the Commission also regulates the design and construction of the cap or cover that is placed over the tailings storage cell once operations are complete; it must be made out of earth or an approved alternative and must be engineered so as to provide "reasonable assurance" that it will control the release

of radon gas and other radioactive materials within strict, specified limits "for 1,000 years, to the extent reasonably achievable." *Id.*

3. Because of confusion over the precise dividing line between federal and state authority over nuclear matters, in 1959 Congress again amended the AEA, to "clarify the respective responsibilities . . . of the States and the Commission with respect to the regulation of byproduct, source, and special nuclear materials." Act to Amend the Atomic Energy Act of 1954, Pub. L. No. 86-373, 73 Stat. 688 (1959) (codified at 42 U.S.C. § 2021(a)(1)). That amendment provided a narrow path through which States may assume limited regulatory authority under the watchful eye of the NRC. The Commission may "enter into agreements with the Governor of any State" to transfer to that State the NRC's regulatory jurisdiction over uranium milling and tailings management, 42 U.S.C. § 2021(b), but only if the NRC first ensures that the state program satisfies certain requirements, *id.* § 2021(d)(2). Once such an agreement is finalized, "the State shall have authority to regulate the materials covered by the agreement for the protection of the public health and safety from radiation hazards"—but only for "the duration of such an agreement." *Id.* § 2021(b). Unless such an agreement is in place, a State may regulate only "for *purposes other than protection against radiation hazards*." *Id.* § 2021(k) (emphasis added).

Although Virginia has entered a Section 2021 agreement with the NRC, that agreement explicitly

does *not* cover uranium milling or tailings management. Pet.App.298a, 301a.

III. Virginia's Ban on Uranium Mining

Since shortly after the Coles Hill uranium deposit was discovered in the late 1970s, Virginia has flatly banned the mining of any uranium within its borders:

> Notwithstanding any other provision of law, permit applications for uranium mining shall not be accepted by any agency of the Commonwealth prior to July 1, 1984, and until a program for permitting uranium mining is established by statute.

VA. CODE § 45.1-283.

Virginia enacted this ban as a temporary moratorium on uranium mining in 1982 and then extended it into an indefinite ban through a series of steps throughout the early-to-mid 1980s. The Commonwealth then reconsidered the ban during the period from 2008 to 2013 but ultimately declined to lift it. And although Section 45.1-283 is literally phrased as a ban on "uranium mining," *id.*, as the case comes to this Court, Virginia has admitted that the mining ban was and is motivated by radiological safety concerns related to uranium milling and tailings management activities. Through its ban, Virginia has thus attempted to do *pretextually* what it admits it may not do directly: ban uranium milling and the storage of uranium tailings in the State in order to assuage local radiological safety concerns.

1. Virginia first moved to regulate uranium in 1981, shortly after uranium was discovered at Coles Hill. In the 1981 session, the General Assembly passed a resolution calling for the creation of a Uranium Subcommittee tasked with "evaluat[ing] the environmental effects of uranium exploration, mining and milling . . . and any possible detriments to the health, safety, and welfare of Virginia citizens which may result from uranium exploration, mining or milling." Act of Feb. 20, 1981, H.J. Res. 324, 1981 Va. Acts 1404, Pet.App.170a. Based on the Subcommittee's recommendation, in 1982 the Assembly imposed a "moratorium" on mining uranium until July 1, 1983, to give the Commonwealth an opportunity for further study. Act of Apr. 7, 1982, ch. 269, 1982 Va. Acts 426, 427, Pet.App.176a.

In 1983, the General Assembly extended the moratorium "until a program for permitting uranium mining is established by statute"—the current form of the ban. Act of Feb. 24, 1983, ch. 3, 1983 Va. Acts 3, Pet.App.177a–78a. It simultaneously created a second entity, the Uranium Administrative Group ("UAG"), tasked with conducting a more in-depth "evaluation of the costs and benefits" of uranium development. *Id.*, Pet.App.178a.

The General Assembly's overriding concern with the radiological hazards arising from milling and tailings management operations is evident on the face of this 1983 Act. The General Assembly directed the UAG specifically to examine a number of potential radiological safety concerns arising out of milling and tailings management activities, including the "capacity of the

mill" that was to be used to process the ore, the "quantity and quality of liquid and solid wastes," "the quantity and characteristics of the tailings," the "method of disposal," and the potential "atmospheric releases and the methods for controlling such releases." *Id.*, Pet.App.184a–85a. The General Assembly specified the milling- and tailings-related issues the UAG was to study in the most granular detail possible—from the "reagents and processing materials to be used" in milling operations to the "size of the tailings disposal area" and its "hydrology, hydrogeology, and surficial and bedrock geology." *Id.*, Pet.App.185a.

After two years of studying the radiological safety concerns related to milling and tailings storage in detail, the UAG issued a final report recommending that the ban be lifted. J.A.124. The UAG Report was supported by 16 of the 18 members of the group, but dissents were filed by Elizabeth H. Haskell and Frank E. Wallwork. Both dissents confirm that the opposition to uranium mining focused almost exclusively on the radiological safety concerns raised by tailings management operations.

Ms. Haskell based her opposition to permitting mining on "[t]he risks of cancer deaths and illnesses from radiation released from the uranium ore and waste products called tailings." J.A.142. In particular, she maintained that because Virginia has a "climate where rainfall exceeds evaporation," the risk that water that "is discharged from the site and filters through tailings" might be transmitted "to people through streams and the groundwater is a major issue." *Id.* Ms.

Haskell also worried about the potential for "long-term deterioration or collapse of the 100 foot high tailings pile by flood, earthquake, erosion or design failure for the thousands of years the tailings are radioactive." J.A.143. Mr. Wallwork likewise objected to the recommendation to permit mining based on his belief, contrary to the judgment of the NRC, that "[t]he technology to prevent seepage of radionuclides, heavy metals, or chemicals from the tailings area into the ground water has not been developed." J.A.149.

The General Assembly ultimately followed the recommendation of the two dissenters and declined to lift the moratorium.

2. For the next twenty years, plans to develop the Coles Hill deposit were not pursued because uranium prices had fallen steeply. The price of uranium finally rebounded in the mid-2000s, and Petitioner Virginia Uranium, Inc., was formed and began to engage the political process, urging lawmakers to reconsider the ban on uranium mining.

In 2008, the General Assembly formally began reconsideration of its ban on uranium development. After several State-sponsored studies, a bill was introduced in 2013 that would have lifted the ban and allowed uranium development, subject to stringent regulation. As in the 1980s, however, the opponents of uranium development succeeded in keeping the ban in place. And once again, Virginia's refusal to permit uranium mining was grounded squarely in radiological

safety concerns related to milling and, primarily, tailings management.

There can be no question that the Virginia State legislators who supported the continued enforcement of the ban were motivated by radiological safety concerns, primarily fears that mill tailings would contaminate the downstream drinking water supply relied upon by the Hampton Roads and Southside Virginia parts of the State. Indeed, the uncontradicted record evidence in the district court indicates that of the 31 members of the General Assembly who expressed their opposition to lifting the ban in statements in the public record, *every single one* cited radiological health and safety concerns, and *all but two* of them referenced fears that uranium tailings would contaminate the groundwater. *See* Pet.App.239a–97a. Although the ban literally covers only "uranium mining," these legislators understood and treated it as a ban on *the storage of uranium tailings*—something Respondents admit Virginia could not impose directly.

Ultimately, the argument that the tailings left over from uranium mining would expose Hampton Roads and Southside Virginia residents to radioactive water proved dispositive. At the end of January 2013, the bill designed to lift the ban was withdrawn.

IV. The Proceedings Below

1. Petitioners filed suit in the Western District of Virginia, alleging that the Commonwealth's ban is preempted by the federal Atomic Energy Act.

Petitioners sought a declaration to that effect and an injunction prohibiting continued enforcement of the ban.

Respondents moved to dismiss the complaint for failure to state a claim upon which relief could be granted. The Commonwealth acknowledged that the AEA gives the federal NRC exclusive regulatory jurisdiction over the radiological safety of the milling of uranium ore and the management of the resulting tailings. Nevertheless, Respondents argued that federal law does not in any way limit the State's authority to regulate uranium mining itself—even if it is clear beyond doubt that Virginia was regulating mining as an *admitted pretext* for regulating milling and tailings operations on the basis of radiological safety concerns. Petitioners cross-moved for summary judgment, arguing that both the text of the AEA and this Court's decision in *PG&E* compel the conclusion that Virginia's uranium mining ban is within the AEA's preempted field, given its admitted purpose. Petitioners also argued that the uranium ban is independently preempted as an obstacle to the AEA's purpose and objective of encouraging uranium development.

The district court granted Respondents' motion to dismiss and denied Petitioners' cross-motion for summary judgment. Pet.App.53a. The court held that Virginia's ban on uranium mining was not preempted because "[t]he AEA institutes no permitting regime respecting nonfederal uranium deposits' conventional mining and does not otherwise regulate nonfederal uranium deposits or their conventional

mining." Pet.App.68a. The court deemed it entirely irrelevant that "the General Assembly enacted [the uranium mining ban] out of concern for uranium (and, therefore, radiological) safety," Pet.App.69a, because the Commonwealth "asserted the right to act," as a formal matter, only on an "activity or material"—uranium mining—over which "the AEA is silent and confers no authority." Pet.App.78a.

The court held that "there is no occasion to inquire into [the ban's] purpose." *Id.* *PG&E*'s clear statements to the contrary, the court concluded, were nonbinding dicta that the court was free to ignore. "Rather than . . . extrapolating *Pacific Gas & Electric Co.*'s dicta and selecting among the opinion's (at times) seemingly-inconsistent language, this Court will adhere to the surer conclusion by scrutinizing the statutes uniquely before it and addressing their interaction under intelligible and longstanding principles of preemption." Pet.App.79a (footnote omitted).

2. A divided panel of the Fourth Circuit affirmed. Pet.App.1a–20a. The panel majority acknowledged that Section 2021(k) of the AEA, as construed by this Court in *PG&E*, "prohibits states from regulating, for [radiological] safety reasons, activities that are in any way regulated by the federal government under the Atomic Energy Act." Pet.App.11a (quotation marks omitted). And the majority further conceded that "uranium milling and tailings storage are 'activities' under Section 2021(k) because they are regulated by the NRC," and that "states may therefore not regulate them except for purposes other than protection against

radiation hazards." Pet.App.13a–14a.[4] Moreover, the majority accepted the Commonwealth's concession (at least for purposes of the motion to dismiss) that the purpose and effect of the ban on uranium mining was to prohibit uranium milling and tailings storage activities based on radiological safety concerns. Pet.App.10a ("the Commonwealth concedes that it lacks a non-safety rationale for banning uranium mining").

Nevertheless, the majority held that it need not inquire into the purpose of Virginia's mining ban. Pet.App.14a–15a. Observing that "[t]here are some areas of law—such as actions arising under the Equal Protection Clause of the Fourteenth Amendment" where "we may conduct a pretext analysis to ascertain a legislature's true motive," the court reasoned that "this is not such a case" because Petitioners have "not allege[d] that the Virginia legislature acted with discriminatory intent. . . ." Pet.App.15a. Accordingly, because the Commonwealth's statute facially bans only the mining of uranium and "does not mention uranium milling or tailings storage," the majority declined "to look past the statute's plain meaning to decipher whether the legislature was motivated to pass the ban

[4] The majority also addressed whether "uranium mining" itself, as opposed to milling and tailings storage, "is an 'activity' under Section 2021(k) of the Atomic Energy Act, which . . . states can't regulate . . . for the purpose of protecting against radiation hazards," Pet.App.8a, but Petitioners have not sought review of that question, and it is beyond the scope of the Question Presented.

by a desire to regulate uranium milling [and] tailings." Pet.App.14a.

The majority declined to "follow the paths forged by our sister circuits in *Skull Valley* . . . and *Entergy*," Pet.App.16a—two cases which directly repudiated the proposition that a court may "blindly accept the articulated purpose of a state statute," *Entergy*, 733 F.3d at 416 (brackets omitted), and permit a State to use its authority over activities left within its jurisdiction "as a means of regulating radiological hazards," *Skull Valley*, 376 F.3d at 1248. Those cases, the majority asserted, involved state laws that expressly "targeted" activities within the NRC's exclusive jurisdiction and "specifically mentioned [these] NRC-regulated activit[ies]," while Virginia's uranium ban "does not purport to regulate an activity within the Act's reach, and thus we need proceed no further." Pet.App.16a, 18a.

Finally, the majority also concluded that the Commonwealth's ban was not preempted "as an obstacle to the full implementation of the objectives of the Atomic Energy Act." Pet.App.18a, 19a. Because "over ninety percent of the uranium used by the country's atomic energy industry is imported," and in any event, the AEA "allows the federal government to forcibly expand the production of domestic source material" by taking, through eminent domain, any "real property containing deposits" of uranium, the majority concluded that Virginia's ban did not "materially affect[]" the AEA's objective. Pet.App.19a.

Judge Traxler dissented. This Court's opinions in *PG&E* and *English*, he explained, "make[] clear that the AEA preempts state statutes enacted for the purpose of protecting against the radiological dangers of activities the AEA regulates." Pet.App.52a (Traxler, J., dissenting). And "[b]ecause the Commonwealth has conceded at this point in the litigation that its statute was enacted for just that purpose, the Virginia statute clearly falls within that prohibited field." *Id*. Indeed, Judge Traxler noted that "[u]ntil today, each Court of Appeals addressing the issue since *Pacific Gas* has held that state statutes enacted to protect against the radiological dangers of activities the AEA regulates are preempted *regardless of whether the statutory text reveals that purpose and regardless of whether the statute expressly prohibits an activity the Act regulates*." Pet.App.42a. Virginia's ban falls within the AEA's preempted field, Judge Traxler concluded, under "the very same principles." Pet.App.47a.

Finally, Judge Traxler also would have held that the Commonwealth's ban is preempted as an obstacle to the AEA's purposes and objectives, since the challenged law "*prevent[s] the involvement of the very private-sector forces that the Act was designed to unleash*." Pet.App.48a.

3. Both rulings below are thus predicated on the assumption that Virginia's uranium ban is motivated by radiological safety concerns related to milling and tailings management. The courts below have made that assumption because Respondents have *conceded* for purposes of the underlying motion to dismiss that

Virginia's ban is grounded in these concerns. In the District Court, Respondents accepted as true the lengthy and detailed allegations in Petitioners' complaint about the uranium ban's purpose, "[a]ssuming for purposes of" their motion to dismiss that "one of the purposes behind enacting § 45.1-283 was to address potential radiological safety concerns." J.A.43–44 (footnotes omitted); *see also* J.A.211–13. And before the Fourth Circuit, Respondents doubled down on that concession, arguing that the nearly 700 pages of evidence Petitioners introduced below showing the uranium ban's true motivation was "beside the point, . . . because Rule 12(b)(6) *required defendants to accept as true that Virginia enacted the moratorium based on radiological safety concerns*." J.A.216 (emphasis added). In short, as the case comes to this Court, it is undisputed that the purpose and effect of the uranium mining ban is to prohibit milling and tailings management operations based on the Commonwealth's disagreement with the NRC's judgment that such activities, when properly licensed and regulated, do not pose a radiological danger to public health and safety.[5]

4. On April 21, 2017, Petitioners petitioned this Court for a writ of certiorari. This Court requested the Solicitor General to file a brief giving the views of the United States, and on April 9, 2018, the United States

[5] In Petitioners' view, Respondents have forfeited any argument that the uranium ban has any other purpose by failing to present any evidence or legal argument on the point in response to Petitioners' cross-motion for summary judgment. But this Court need not resolve that issue as the courts below have not addressed it.

filed a brief urging the Court to grant the writ. On May 21, the Court granted certiorari to determine whether "the AEA preempt[s] a state law that on its face regulates an activity within its jurisdiction . . . , but has the purpose and effect of regulating the radiological safety hazards of activities entrusted to the NRC." Pet.i.

SUMMARY OF THE ARGUMENT

I. The text of the AEA and this Court's precedents establish that the field preempted by the Act is "defined . . . , in part, by reference to the motivation behind the state law" that is allegedly preempted. *English*, 496 U.S. at 84. Section 2021 of the AEA was enacted "to clarify the respective responsibilities under [the AEA] of the States and the Commission," 42 U.S.C. § 2021(a)(1), and that provision thus governs the scope of preemption under the Act. Section 2021 provides that if a State obtains the NRC's consent to assume jurisdiction over certain radiological materials, the State acquires "authority to regulate the materials covered by the agreement for the protection of the public health and safety from radiation hazards." *Id.* § 2021(b).

But where—as here—no such agreement applies, the State has authority only "to regulate activities for *purposes other than* protection against radiation hazards." *Id.* § 2021(k) (emphasis added). Accordingly, as this Court held in *PG&E*, "the federal government has occupied the entire field of nuclear safety concerns,"

and where a State enacts a law "grounded in safety concerns" without first obtaining the NRC's permission under Section 2021, such a law "falls squarely within the prohibited field." 461 U.S. at 212–13.

II. While Virginia's uranium ban ostensibly prohibits only the *mining* of uranium, an activity the NRC does not regulate, Respondents concede at this stage in the case that the ban was enacted and maintained for the purpose of assuaging local concerns about the radiological safety of the subsequent *milling* of uranium ore and the management of its *tailings*—matters that, they also concede, fall within the NRC's exclusive jurisdiction. That should have been sufficient to end this case. But the panel majority below upheld the ban, reasoning that it need not even *look* at the purpose behind Virginia's ban, solely because the Commonwealth's law *purported* to be regulating an activity over which it retained control. That proposition cannot be squared with this Court's precedents or with the AEA itself.

The central import of Section 2021 is that the preemption inquiry must turn not just on *the activity* a State purports to regulate, but also on *the purpose* that motivates the regulation and the effect the State's regulation has on activities that Congress has entrusted exclusively to the NRC. And the lesson of *PG&E* is that under Section 2021's purpose inquiry, *even if* a State *claims* to be exercising authority that the AEA leaves in its hands, the courts must determine whether the challenged state law is instead actually "grounded in [radiological] safety concerns" that

Congress entrusted exclusively to the NRC. *PG&E*, 461 U.S. at 213.

III. The approach to preemption adopted below would stultify the AEA's core purpose of encouraging the development of atomic energy. State and local governments routinely seek to block nuclear development, prioritizing localist concerns over the national interest. Accordingly, following *PG&E* the federal courts have applied Section 2021's preemption framework time and again to strike down attempted interference with the atomic energy industry. The field-preemption analysis adopted by the panel majority demolishes Section 2021's framework at its foundations, enabling state and local governments to freely block nuclear development so long as they write their bans, restrictions, and moratoriums with sufficient care to formally maintain the pretext.

IV. Virginia's ban is also preempted as an obstacle to the accomplishment of the AEA's purposes and objectives. The federal statute, and the NRC regulations implementing it, are designed to maintain a delicate balance between "the promotion of nuclear power," *PG&E*, 461 U.S. at 221, and the radiological health and safety concerns posed by the materials used to produce that power. Virginia, by banning uranium mining altogether based on a judgment about the radiological safety of milling and tailings management that *directly contradicts* the NRC's own judgment has "upset the careful balance struck by Congress." *Edgar v. MITE Corp.*, 457 U.S. 624, 634 (1982). Moreover, Virginia has effectively regulated milling-and-tailings-related materials and activities

without first obtaining the agreement of the NRC to take over these portions of its jurisdiction as required by Section 2021, it thereby frustrates that important aspect of the AEA as well. *See Gade v. Nat'l Solid Wastes Mgmt. Ass'n*, 505 U.S. 88, 98–101 (1992).

ARGUMENT

In 1954, Congress declared that "the policy of the United States" is to direct "the development, use, and control of atomic energy . . . 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). Accordingly, atomic energy and the "source materials" such as uranium used to produce it "must be regulated in the national interest and in order to provide for the common defense and security and to protect the health and safety of the public." *Id.* § 2012(d). To that end, Congress created an expert federal agency, the Nuclear Regulatory Commission, with power to "establish by rule, regulation, or order, such standards and instructions to govern the possession and use" of these materials "as [it] may deem necessary or desirable to promote the common defense and security or to protect health or to minimize danger to life or property." *Id.* § 2201(b).

By these actions, as this Court held in its foundational *PG&E* decision, the federal government "occupied the entire field of nuclear safety concerns." 461

U.S. at 212. And the text of the Atomic Energy Act itself establishes the boundary lines of this preempted field: while state and local governments may continue "to regulate activities for purposes other than protection against radiation hazards," they *may not*, absent an agreement approved by the NRC, regulate those materials and activities entrusted to the Commission "for the protection of the public health and safety from radiation hazards." 42 U.S.C. § 2021(b), (k).

The Supremacy Clause makes this determination "the supreme Law of the Land." U.S. CONST. art. VI, § 2. Under ordinary principles of preemption, by occupying this field Congress has "left no room for the States to supplement it." *Rice v. Santa Fe Elevator Corp.*, 331 U.S. 218, 230 (1947). As the Court held in *PG&E*, a State law "grounded in safety concerns falls squarely within the prohibited field," and is thus preempted. 461 U.S. at 213. And where such a State law also bans, based on impermissible radiological safety reasons, the very activities that the NRC permits, it is "in the teeth of the Atomic Energy Act's objective to insure that nuclear technology be safe enough for widespread development and use," and it is likewise "preempted for that reason." *Id.*

Virginia's ban on uranium mining is preempted on both scores, and the courts below thus erred in upholding it.

I. Virginia's Ban on Uranium Mining Encroaches on the Field Preempted by the Atomic Energy Act.

A. The AEA Preempts State Laws Imposed for the Purpose of Regulating Radiological Safety.

Because the language of a statute "necessarily contains the best evidence of Congress' pre-emptive intent," the preemption inquiry should begin with "text and structure of the statute at issue." *CSX Transp., Inc. v. Easterwood*, 507 U.S. 658, 664 (1993). In this case, the text and structure of the AEA clearly mark the boundaries of the preempted sphere: States may regulate *only* "for purposes other than protection against radiation hazards." 42 U.S.C. § 2021(k). Accordingly, as this Court held over three decades ago, a State law "grounded in [radiological] safety concerns falls squarely within the prohibited field." *PG&E*, 461 U.S. at 213.

1. The Text and Structure of the AEA Define the Field Preempted by the Act Based on the Purpose of State Regulation.

The language and basic architecture of the AEA establish limits on state authority that are drawn based on the *purposes* the States may pursue through regulation, not just the *activities* they may continue to regulate. Congress made this division of authority clear in Section 2021 of the Act.

Since 1954, Congress has encouraged the private development of atomic energy in the national interest under the superintendence of the NRC. In the years following the passage of the 1954 Act, however, some confusion developed over the regulatory role left to the States, in light of the NRC's authority to regulate radiological hazards. Accordingly, in 1959 Congress amended the Act to add a new section, Section 2021, designed both "to clarify the respective responsibilities under this chapter [i.e., the AEA] of the States and the Commission with respect to the regulation of . . . [the] materials" entrusted to the jurisdiction of the NRC and "to promote an orderly regulatory pattern between the Commission and State governments with respect to nuclear development and use and regulation of [these] materials." 42 U.S.C. § 2021(a)(1), (3).

The mechanism Congress adopted is straightforward. Under Section 2021, the NRC may "enter into agreements with the Governor of any State" to transfer to that State the NRC's regulatory jurisdiction over certain materials and activities, including uranium milling and tailings management,[6] if the NRC first

[6] Specifically, Subsection (b) authorizes agreements permitting States to regulate both "Byproduct materials" and "Source materials." 42 U.S.C. § 2021(b)(1) & (2). The Act defines "Byproduct materials" to include uranium tailings, *id*. § 2014(e)(2), and "Source materials" to include uranium ore, *id*. § 2014(z). Uranium milling and tailings management operations necessarily involve the transfer, delivery, and possession of these materials, thus rendering these activities subject to regulation exclusively by the NRC absent an agreement approved by the Commission authorizing a State to regulate them. *See id*. §§ 2092, 2111(a).

ensures that the state program is "adequate to protect the public health and safety" and satisfies certain other requirements. *Id.* § 2021(b), (d). If the NRC and a State reach such an agreement, subsection (b) provides that "[d]uring the duration of such an agreement it is recognized that the State shall have authority to regulate the materials covered by the agreement for the protection of the public health and safety from radiation hazards." *Id.* § 2021(b). Absent such an agreement, subsection (k) controls, providing 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." *Id.* § 2021(k).

These provisions thus establish that without an agreement with the NRC in hand, a State may regulate *only* "for purposes *other than* protection against radiation hazards." *Id.* § 2021(k) (emphasis added). After all, under Subsection (b) a State "ha[s] authority to regulate the materials covered by the agreement for the protection of the public health and safety from radiation hazards," only "*[d]uring the duration* of . . . an agreement" with the NRC. *Id.* § 2021(b) (emphasis added). The limited grant of authority to act for these purposes *during the duration* of such an agreement necessarily implies, by way of the *expressio unius* canon, that the State lacks that authority when such an agreement is *not* in force. "When a statute limits a thing to be done in a particular mode, it includes a negative of any other mode." *Raleigh & Gaston R.R. Co. v. Reid*, 13 Wall. (80 U.S.) 269, 270 (1871).

Moreover, a reading that permitted States to regulate for radiological safety purposes without entering an agreement with the NRC would effectively excise Subsection (k) from the text. "Unless the federal government possessed exclusive authority over radiation hazards," the clarification that States may continue to regulate "for purposes other than protection against radiation hazards . . . would have been meaningless and unnecessary." *Northern States Power Co. v. Minnesota*, 447 F.2d 1143, 1149–50 (8th Cir. 1971), *aff'd*, 405 U.S. 1035 (1972) (quotation marks omitted). Indeed, if a State could regulate for these purposes without entering into such an agreement, *the entire mechanism* set forth by Section 2021 would be rendered superfluous. *See Corley v. United States*, 556 U.S. 303, 314 (2009) ("one of the most basic interpretive canons" is "that a statute should be construed so that effect is given to all its provisions" (brackets and quotation marks omitted)).[7]

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[7] Congress recognized that this was the necessary implication of the text and structure of Section 2021 even as it was being drafted. The initial draft of Section 2021(k) had spelled out "the intention of this Act that State laws and regulations concerning the control of radiation hazards from [the materials regulated by the NRC] shall not be applicable except pursuant to an agreement entered into with the Commission pursuant to subsection b." As the Commission pointed out, however, "with or without the sentence, the Federal Government will clearly have 'preempted' the regulation and control of radiation hazards from [NRC-regulated] materials," and so Congress eliminated this language from the final draft as unnecessary. Letter from A.R. Luedecke, U.S. Atomic Energy Commission (Aug. 26, 1959), *reprinted in Hearings before the Joint Committee on Atomic Energy*, 86th Cong. at 500 (1959); *see also* U.S. Cert-Stage Br. 4–5, 18 n.5.

Section 2021's text and structure thus make clear that "the respective responsibilities under [the AEA] of the States and the Commission" are determined in part by the State's regulatory *purpose*. Without first entering into an agreement with the NRC, the States *may not* regulate for the purpose of "protection of the public health and safety from radiation hazards" arising from materials entrusted to the care of the NRC. 42 U.S.C. § 2021(b). Instead, it may only "regulate activities for *purposes other than* protection against radiation hazards." *Id*. § 2021(k) (emphasis added).

2. This Court's Precedent Confirms that the Scope of the AEA's Preempted Field Is Defined in Part Based on the Purpose of the State Law in Question.

In *PG&E*, this Court confirmed what is already clear from the text and structure of Section 2021: the AEA limits not only the *activities* the States may continue to regulate but also the *purposes* they may pursue when enacting regulations of *any* activity.

PG&E addressed a California law that imposed a "moratorium" on the construction of new nuclear power plants until such time as a state commission determined that "there has been developed . . . a demonstrated technology or means for the disposal of high-level nuclear waste." 461 U.S. at 198.

In analyzing the validity of that moratorium under the AEA, the Court emphasized at the outset that the California statute did not on its face seek to

regulate *an activity* over which the NRC possessed exclusive jurisdiction. To be sure, as California recognized, the States may not regulate *how* nuclear plants are constructed or operated, given "the NRC's exclusive authority over plant construction and operation." *Id.* at 212. But the Court "emphasize[d] that the [moratorium] does not seek to regulate the construction or operation of a nuclear powerplant." *Id.* Instead, California's law addressed the separate matter of *whether* new nuclear powerplants could be constructed at all. And with respect to that issue, the Court concluded, California retained substantial authority: "despite its comprehensiveness, [the AEA] does not at any point expressly require the States to construct or authorize nuclear power plants or prohibit the States from deciding, as an absolute or conditional matter, not to permit the construction of any further reactors." *Id.* at 205. Indeed, Section 2018 of the AEA makes clear that nothing in the Act "shall be construed to affect the authority or regulations of any . . . State[] or local agency 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.

The continuing existence of state jurisdiction over the *activities* of "the generation, sale, or transmission of electric power produced through the use of nuclear facilities," *id.*, however, did not resolve the preemption question. For the crucial line, *PG&E* reasoned, was not *what* California purported to be regulating but rather *why* the State was regulating it. While "the States

retain their traditional responsibility in the field of regulating electrical utilities for determining questions of need, reliability, cost and other related state concerns," the AEA's plain text dictated "that the federal government should regulate the radiological safety aspects involved in the construction and operation of a nuclear plant." *PG&E*, 461 U.S. at 205. That line followed directly, the Court concluded, from Section 2021. "[B]y permitting regulation 'for purposes other than protection against radiation hazards' [Section 2021(k)] underscored the distinction drawn in 1954 between the spheres of activity left respectively to the federal government and the states." *Id.* at 210.

California pressed a different view of the lines drawn by the AEA. Because "a state may completely prohibit new construction" of nuclear power plants under the reservation in Section 2018, the State argued that power over the *activity* in question necessarily includes the power to prohibit new construction "until its safety concerns are satisfied." *Id.* at 212. This Court unequivocally rejected this argument:

> *We reject this line of reasoning*. State safety regulation is not preempted only when it conflicts with federal law. Rather, the federal government has occupied the entire field of nuclear safety concerns, except the limited powers expressly ceded to the states. . . . A state moratorium on nuclear construction grounded in safety concerns falls squarely within the prohibited field. . . . That being the case, it is necessary to determine whether

> there is a non-safety rationale for [California's moratorium].

Id. at 212–13 (emphasis added). The Court ultimately determined that the moratorium in that case "was aimed at economic problems, not radiation hazards," *id.* at 213, and for that reason, the Court upheld the California statute.

The District Court in this case concluded that *PG&E*'s discussion of the *purposes* that States are allowed to pursue was "dicta" and thus "cannot serve as a source of binding authority." Pet.App.73a, 78a. That is plainly incorrect. As this Court has explained many times, "[w]hen an opinion issues for the Court, it is not only the result but also those portions of the opinion necessary to that result by which [the lower courts] are bound." *Seminole Tribe of Florida v. Florida*, 517 U.S. 44, 67 (1996). And *PG&E*'s interpretation of the AEA's preemptive scope as turning in part on the purpose of a challenged state law was a necessary part of that opinion's *ratio decidendi*—"the logical chain of conclusions announced" by the Court as a justification for its ultimate holding. *Liverpool & G.W. Steam Co. v. Phenix Ins. Co.*, 129 U.S. 397, 439 (1889). The Court rested its holding on an analysis of whether California's law was "grounded in safety concerns," *PG&E*, 461 U.S. at 213, and it is *that "*logical chain of conclusions," *Liverpool*, 129 U.S. at 439, that has controlling *stare decisis* effect, *Seminole Tribe*, 517 U.S. at 67.

This point is further confirmed by Justice Blackmun's separate concurrence. While Justice Blackmun

agreed that California's moratorium should be upheld, he wrote separately (joined by Justice Stevens) to express his disagreement with the majority's conclusion "that a State may not prohibit the construction of nuclear power plants if the State is motivated by concerns about the safety of such plants." *PG&E*, 461 U.S. at 223 (Blackmun, J., concurring in part and concurring in the judgment). "In my view, a ban on construction of nuclear power plants would be valid even if its authors were motivated by fear of a core meltdown or other nuclear catastrophe." *Id.* at 229.

This Court's two subsequent encounters with AEA preemption further confirm that the line between federal and state authority is based in part on the State's dominant motives or concerns. In *Silkwood*, the Court reaffirmed *PG&E*'s core holding that "the federal government has occupied the entire field of nuclear safety concerns," noting that "Congress' decision to prohibit the states from regulating the safety aspects of nuclear development was premised on its belief that the Commission was more qualified to determine what type of safety standards should be enacted in this complex area." 464 U.S. at 249, 250. And in *English*, the Court again recognized that "[*PG&E*] defined the pre-empted field, in part, *by reference to the motivation behind the state law*." 496 U.S. at 84 (emphasis added).

B. Because Virginia Has Conceded that Its Ban Is Imposed for the Purpose of Regulating the Radiological Safety of Milling and Tailings Activities, It Is Preempted.

Virginia's uranium mining ban, Respondents conceded for purposes of their motion to dismiss, is motivated by the purpose of protecting against the radiological hazards of uranium milling and the storage of uranium tailings. Yet both courts below declined to find the ban preempted, reasoning that because Virginia's ban *facially purported* to regulate a matter outside the NRC's jurisdiction, no analysis of the *purpose actually served* by the ban was necessary or appropriate. That was error.

1. As shown above, Petitioners alleged—and Respondents, for the purpose of their motion to dismiss, conceded—that Virginia's uranium ban is "grounded in [radiological] safety concerns" related to materials that remain subject to exclusive NRC jurisdiction: mined uranium ore and uranium tailings. Petitioners' complaint alleged at length and in detail that the ban "was almost exclusively based upon radiological safety concerns related to tailings management" and that "[t]he true design and function of Virginia's ban on uranium mining . . . is to act as an absolute bar on the construction of a tailings management facility in the Commonwealth." Compl., Pet.App.232a. And Respondents *conceded* that Virginia's ban is motivated by these concerns, recognizing that "Rule 12(b)(6) required [them] to accept as true" Petitioners' "claims about legislative motive." J.A.216 & n.58.

Indeed, as recounted above, the record evidence leaves *no conceivable doubt* that Virginia's ban was motivated by concerns regarding the radiological hazards of milling and tailings storage. Not only does the history of the ban from 1982 onward reveal its true purpose; the Commonwealth's motives are plain from the text of the law itself. As detailed above, the 1983 bill that enacted the ban in its current form simultaneously directed a comprehensive state study of the radiological safety aspects of milling and tailings storage—directing the examination of every last detail, from the probable "capacity of the mill" to the "size of the tailings disposal area" and its "hydrology, hydrogeology, and surficial and bedrock geology." Act of Feb. 24, 1983, ch. 3, 1983 Va. Acts 3, Pet.App.184a–85a.

Accordingly, Virginia's uranium ban is squarely "grounded in [radiological] safety concerns" related to materials and activities that are indisputably within the NRC's exclusive authority, and under the plain text of Section 2021 and this Court's precedent, it is preempted. *PG&E*, 461 U.S. at 213.

2. The panel majority below nonetheless held that the ban survives preemption, declining *even to conduct* the purpose analysis required by Section 2021 and this Court's decision in *PG&E*. That analysis applies, according to the majority, only "[i]f a state purports to regulate an activity that is also regulated by the Act." Pet.App.9a. And because the NRC does not regulate conventional uranium mining, Virginia's ban is not in the field preempted by the Act. Pet.App.11a. That conclusion was flatly inconsistent with *PG&E*'s

central reasoning, and its effect is to replace the purpose-based preemption inquiry prescribed by Congress in Section 2021 with a wholly different "activity"-based inquiry of the lower courts' own making.

The central import of Section 2021 is that to determine whether a state regulation is interfering with the NRC's authority, a court must look not solely at what activity or material the state law *purports* to be regulating, but rather at what the regulation's *true* purpose and effect are. State laws will rarely *purport* to apply only to matters outside the State's jurisdiction. But Congress necessarily concluded that such a claim cannot be taken at face value. Any other rule would allow the States to "regulate the materials" within the NRC's jurisdiction "for the protection of the public health and safety from radiation hazards" *without obtaining an agreement with the NRC*, through the simple expedient of pretextually regulating some activity or material outside the NRC's regulatory ambit. 42 U.S.C. § 2021(b); *see also* U.S. Cert-Stage Br. 13 ("A State's purposeful effort to regulate the radiological hazards of AEA activities is preempted even if the State attempts to regulate those hazards indirectly, as by prohibiting necessary antecedent activities that fall outside direct federal control."). Since *McCulloch v. Maryland*, it has been settled that a legislature may not "under the pretext of executing its powers, pass laws for the accomplishing of objects not intrusted to the government." 4 Wheat. (17 U.S.) 316, 423 (1819).

The approach adopted by the court below is inconsistent with the very nature of any inquiry into a

statute's purpose or motivation. The *point* of such an inquiry is to identify cases in which the State is using its authority to regulate an activity properly within its own sphere as a pretext to enable it to regulate in the preempted field. By directing in the AEA that the line between federal and state authority must be drawn based in part on the *purpose* of a State's regulation rather than the activity it governs, Congress has blocked the deployment of such pretexts, and Respondents cannot short-circuit the inquiry at the outset merely *by pointing to the pretext*. The Jim Crow literacy tests were not insulated from Equal Protection scrutiny even though they *purported* only to establish neutral rules governing the educational qualifications for voting. Under the approach adopted below, by contrast, the AEA's purpose-based inquiry is confined to those rare instances in which a State *admits* that it is regulating "an activity that is also regulated by the Act." Fourth Circuit Opinion, Pet.App.9a; *see also* U.S. Cert-Stage Br. 16 ("[T]he 'purpose' test has practical relevance only where a State is operating within a field where a State enjoys substantive authority to regulate.").

Even that rule is insufficient to save Virginia's uranium ban, however, for in this case Respondents *have* admitted, for purposes of the underlying motion to dismiss, that the ban is pretextual, and in reality is based on preempted concerns. The Commonwealth banned uranium mining for the purpose of precluding *milling and tailings storage operations* because it believed, contrary to the NRC's judgment, that they pose a radiological danger to public health and safety.

Whatever the application of Section 2021's purpose test in cases where the State's motivation is ambiguous or unclear, if it is to have any force at all it surely must preempt a law that the State *admits* is a pretext.

The approach adopted below is also directly contrary to this Court's teaching in *PG&E*. In that case, too, the state law at issue *purported* to regulate a matter squarely outside the NRC's authority. As *PG&E* emphasized and then emphasized again, the AEA "does not at any point expressly require the States to construct or authorize nuclear power plants or prohibit the States from deciding, as an absolute or conditional matter, not to permit the construction of any further reactors." 461 U.S. at 205. To the contrary, the Act *expressly preserves* state jurisdiction over "the generation, sale, or transmission of electric power." *Id.* at 208 (quoting 42 U.S.C. § 2018).

And the *PG&E* Court took pains to "emphasize[] that the [California] statute *does not* seek to regulate the construction or operation of a nuclear powerplant," 461 U.S. at 212 (emphasis added)—by prescribing, for example, the thickness of the walls, qualifications for employees, or other similar details. But this Court held that the fact that the challenged law on its face regulated a matter that all agreed was within the State's jurisdiction was not sufficient, standing alone, to save California's moratorium from preemption. The fact that "a state may completely prohibit new construction" for *some* purposes *did not mean* that it could do so for radiological safety purposes; California could not use its conceded authority over nuclear power

generation to require that "its safety concerns [be] satisfied by the federal government." *Id.*

So too with Respondents' uranium mining ban. On its face, the Commonwealth's statute may purport to regulate only the mining of uranium, an activity beyond the NRC's jurisdiction. But the fact that "a state may completely prohibit [uranium mining]" *for some purposes* cannot, given the plain text of Section 2021, mean that it may do so until the federal government has satisfied the State's "safety concerns" about uranium milling and tailings storage. *Id.* The Virginia law at issue in this case thus raises precisely the same question that this Court held must be answered in *PG&E*. The courts below erred in refusing to ask that question.

3. The Fourth Circuit panel majority gave another reason for declining "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." Pet.App.14a. Noting that "[t]here are some areas of law—such as actions arising under the Equal Protection Clause of the Fourteenth Amendment—where a legislature's improper motive *itself* is cause for courts to find a law [invalid]" and that a court thus "may conduct a pretext analysis to ascertain a legislature's true motive" in these circumstances, the panel majority reasoned that "this is not such a case" because Petitioners have "not allege[d] that the Virginia legislature acted with discriminatory intent. . . ." Pet.App.15a. Accordingly, it "adhere[d] to the edict that courts 'will not strike down an otherwise constitutional statute on the basis of an alleged illicit

legislative motive.'" *Id.* (quoting *United States v. O'Brien*, 391 U.S. 367, 383 (1968)).

Once again, this line of reasoning cannot be squared either with the text of the AEA or this Court's precedent interpreting it. Of course, since this is not an equal protection challenge, Petitioners have not alleged "discriminatory intent" of the kind proscribed by the Fourteenth Amendment. But that is irrelevant, for Congress has itself directed that in this context, too, "a legislature's improper motive *itself* is cause for courts to find a law" preempted under the AEA. *Id.* The direct and necessary implication of Congress's statutory instructions, this Court has recognized, is that the AEA's preemptive scope is "defined . . . , in part, by reference to the motivation behind the state law." *English*, 496 U.S. at 84. The panel below erred in refusing to conduct the preemption analysis expressly prescribed by Congress.

C. The Approach to Preemption Adopted Below Would Threaten To Cripple the Atomic Energy Industry, Nullifying a Core Purpose of the AEA.

"There is little doubt that a primary purpose of the Atomic Energy Act was, and continues to be, the promotion of nuclear power." *PG&E*, 461 U.S. at 221. The refusal by the courts below to "conduct a pretext analysis to ascertain [Virginia's] true motive," aside from being contrary to the AEA's plain language and this Court's precedents, vitiates that core congressional purpose. Section 2021 governs the allocation of federal

and state authority not only over the uranium industry, but also over every other matter within the NRC's regulatory ambit—from the construction and operation of nuclear power plants, 42 U.S.C. § 2133, and the storage of radioactive waste, *id.* §§ 2073, 2092, 2093, 2111, 2201(b), to the development of the atomic materials used by our armed forces, *id.* § 2121; *see also* U.S. Cert-Stage Br. 22 (AEA covers "each . . . stage of the nuclear fuel cycle"). And the approach adopted below would enable state and local governments to second-guess the NRC's judgments across the entire universe of these issues, effectively declaring open season on the Nation's atomic energy industry.

This case is not the first—nor is it likely to be the last—in which state or local governments seek to frustrate the development or operation of nuclear facilities based on localist radiological safety concerns not shared by the experts at the NRC. *See id.* ("States will likely continue to face pressures to restrict or prohibit private nuclear-energy development."). Prior to the decision below, using the framework established in *PG&E*, the lower federal courts have fashioned an approach to preemption that has consistently protected the national interest in "encourag[ing] the development of the atomic energy industry," 42 U.S.C. § 2012(i), from such localist interference. Time and again, the courts have employed that approach to strike down efforts by States, counties, and municipalities to frustrate the national interest in atomic energy.

Applying the preemption framework set forth by Section 2021 and affirmed by *PG&E*, the lower courts

have, for instance, routinely set aside state and local efforts to prevent the storage of spent nuclear fuel ("SNF") or other radioactive materials within their borders. Through the state laws at issue in *Skull Valley*, Utah attempted to prevent the storage of SNF within its borders by enacting a series of restrictions that ostensibly regulated activities that were squarely within the State's police power. One provision barred "counties from providing 'municipal-type services,' including fire protection, garbage disposal, water, electricity, and law enforcement, to SNF transportation and storage facilities within the county." 376 F.3d at 1245. Another provision took control of "the only road permitting access to the [proposed spent fuel storage] facility . . . by designating it as a state highway," and then "requir[ed] the consent of the governor and the state legislature" before any "company engaged in the transportation or storage of SNF" was allowed to drive on it. *Id.* at 1252. Yet another "revoke[d] statutory and common-law limited liability for officers, directors, and equity-interest owners of companies operating SNF storage facilities in Utah." *Id.* at 1229.

It is difficult to conceive of activities closer to the heart of a State's traditional police power—and more remote from the activities regulated by the NRC—than these. The provision of utilities, police and fire protection, and sewer access are all matters that lie at the core of State power; and obviously nothing in the AEA regulates the use of state roads or the details of corporate law. But because Utah's regulation of those activities was motivated by radiological safety

concerns related to materials within the NRC's regulatory jurisdiction, the Tenth Circuit concluded that Utah's purported regulation of these state and local matters fell within the AEA's preempted field.

> Although it is true that the County Planning Provisions address law enforcement, fire protection, waste and garbage collection and other similar matters that have been traditionally regulated by local governments, that fact does not trump the preemption analysis that the controlling Supreme Court decisions require us to undertake. Under that analysis, we consider the purpose and effect of the state law at issue, and, as a result, *a state cannot use its authority to regulate law enforcement and other similar matters as a means of regulating radiological hazards*.

Id. at 1247–48 (emphasis added). Because Utah's law was a pretextual attempt to regulate the storage of SNF, the Tenth Circuit held that each of the pretextual restrictions was "grounded in safety concerns" and therefore invalid. *Id.* at 1246, 1248, 1251, 1252.

Similarly, in *Illinois v. General Electric Co.*, the Seventh Circuit held that the AEA preempted an Illinois statute that banned the storage of certain SNF within the State. 683 F.2d 206, 214–16 (7th Cir. 1982). The court rejected Illinois's theory that it could regulate SNF pursuant to its residual authority over air pollution under the Clean Air Act, since that authority did not give it "carte blanche" to "disrupt[] the federal atomic energy program." *Id.* at 216. Likewise, in *United States v. Kentucky*, the Sixth Circuit struck

down an attempt by Kentucky's environmental protection agency to prevent the storage of radioactive waste at a site within the State, reasoning that the State's authority "to regulate solid waste disposal is irrelevant" because its efforts "represent an attempt . . . to regulate materials covered by the AEA based on the [state agency's] safety and health concerns, and are thus preempted." 252 F.3d 816, 823 (6th Cir. 2001). *See also United States v. Manning*, 527 F.3d 828, 837–39 (9th Cir. 2008) (ballot initiative preventing storage of additional radioactive waste "to protect the health and safety of Washington residents and the environment" preempted); *Jersey Cent. Power & Light Co. v. Lacey Twp.*, 772 F.2d 1103, 1112 (3d Cir. 1985) (local ordinance banning the importation of SNF or other radioactive waste preempted); *Abraham v. Hodges*, 255 F. Supp. 2d 539, 553 (D.S.C. 2002) (state executive order "prohibiting the transportation of plutonium within South Carolina" preempted).

Another area that has inspired frequent and energetic attempts at regulatory interference by state and local governments is the very matter at issue in *PG&E*: the construction and operation of nuclear power plants.

For instance, the Second Circuit's *Entergy* decision dealt with a Vermont statute that sought to shut down a nuclear power plant by providing that "a nuclear energy generating plant may be operated in Vermont only with the explicit approval of the General Assembly." 733 F.3d at 403. Like the California moratorium at issue in *PG&E*, this statute on its face regulated

only "the generation, sale, or transmission of electric power produced through the use of nuclear facilities," activities over which the AEA expressly preserves state authority. 42 U.S.C. § 2018. Moreover, in an obvious effort to sidestep *PG&E*'s definition of the preempted field, the Vermont Legislature included in its statute a declaration specifically stating that the Act's purpose was *not* grounded in radiological safety concerns, but rather was designed to foster a "larger societal discussion of broader economic and environmental issues relating to the operation of a nuclear facility in the state. . . ." *Entergy*, 733 F.3d at 403.

The Second Circuit, however, refused to "blindly accept the articulated purpose" of Vermont's statute, noting that "[i]f that were the rule, legislatures could nullify nearly all unwanted federal legislation by simply publishing a legislative committee report articulating some state interest or policy—other than frustration of the federal objective—that would be tangentially furthered by the proposed state law." *Id.* at 416 (quotation marks omitted). Instead, the court held that *PG&E* "requires us to conduct a . . . searching review to determine whether a statute was enacted based upon radiological safety concerns," *id.*, a review that included scrutinizing "the statute's legislative history to determine if it was passed with an impermissible motive," *id.* at 418. After closely reviewing the available evidence of legislative motivation, which revealed that "both state legislators and regulators" had with "remarkable consistency . . . expressed concern about radiological safety and expressed a desire to evade federal preemption," the court concluded that

"radiological safety [was] the Vermont legislature's primary purpose in enacting the statute." *Id.* at 420. Accordingly, it struck the statute down.

Once again, *Entergy* is far from the only instance in which the lower courts have invalidated efforts by state and local officials to second-guess the NRC's judgment concerning the safest way to operate nuclear facilities. In *County of Suffolk v. Long Island Lighting Co.*, to take one example, the Second Circuit held that a county's lawsuit seeking to enjoin the construction of a nuclear power plant within its borders based on "common law tort and contract principles" was preempted: "The gist of [the County's] complaint" was that the plant's design "posed a substantial risk to the public safety." 728 F.2d 52, 55, 56, 59–60 (2d Cir. 1984); *see also Northern States Power Co. v. Prairie Island Mdewakanton Sioux Indian Cmty.*, 781 F. Supp. 612, 613, 618 (D. Minn. 1991) (preempting tribal ordinance that would have prevented a local power company from transporting "various radioactive materials necessary to the [power plant's] operation" over the only access road through the Tribe's reservation); *Northern States Power Co. v. Minnesota*, 447 F.2d 1143, 1147, 1154 (8th Cir. 1971) (AEA preempted Minnesota's attempt to impose limits on radioactive discharges from nuclear facility that were "substantially more stringent" than the NRC's limits), *aff'd*, 405 U.S. 1035 (1972).

These lower court decisions correctly turning back state and local efforts to interfere with the NRC's judgment on nuclear matters illustrate the danger posed by the Fourth Circuit's disregard for the purpose-based

approach to preemption articulated in Section 2021 and *PG&E*. The ruling by the panel majority provides what amounts to a road map showing state and local governments how to thwart the AEA's purpose of promoting nuclear energy and to vindicate localist concerns about radiological safety even when they are contradicted by the NRC's expert judgment. A state wishing to prevent the storage of SNF within its borders could, like Utah in *Skull Valley*, do so by denying the storage company the use of its roads and rails—so long as it studiously avoided "targeting spent nuclear fuel directly" or "specifically mention[ing] this NRC-regulated activity" on the face of its law. Pet.App.16a. And a county wishing to impose its own set of safety requirements on the construction or operation of a local nuclear plant would be free to usurp the NRC's authority on these matters by, for example, denying police and fire protection, or the protection of limited shareholder liability, to the plant's owner unless it met the county's demands—again, as long as the county carefully drafted its ordinance in a way that did "not purport to regulate an activity within the [AEA]'s reach." Fourth Circuit Opinion, Pet.App.18a; *see also* U.S. Cert-Stage Br. 22 ("Under the Fourth Circuit's analysis, States could effectively prevent federally regulated activities that the States believe to be unsafe, by erecting 'bottlenecks' at antecedent stages that are not themselves subject to federal regulation.").

The dangerous implications of this approach for the United States' nuclear energy industry are bad enough even when limited to the facts of this case. As

discussed above, both Congress and the Executive Branch have routinely emphasized the critical importance of ensuring a reliable uranium supply, given both the military applications of the resource and its use in fueling nearly one-fifth of the Nation's total domestic electricity production. *See*, *e.g.*, 42 U.S.C. §§ 2296b-3(a), 2296b-6(a); Final List of Critical Minerals 2018, 83 Fed. Reg. 23,295 (May 18, 2018). Yet we continue to rely on foreign sources to provide 94 percent of this vital national resource, and even worse, we depend upon Russia and its client states for nearly 40 percent of our supply. Allowing States like Virginia to impede domestic uranium production—based on radiological safety concerns that have been entrusted exclusively to the NRC—thus seriously undermines the AEA's purpose of fostering "the development, use, and control of atomic energy" for "peaceful as well as military purposes." 42 U.S.C. § 2011. This Court should not sanction an approach to preemption that allows States to frustrate the purposes of the AEA by pretextually circumventing Section 2021 in this way.

II. Virginia's Ban Is Also Preempted as an Obstacle to the Full Implementation of the AEA's Objectives.

In addition to holding that the AEA "occupied the entire field of nuclear safety concerns," *PG&E*, 461 U.S. at 212, this Court also held that *beyond* the borders of this exclusively federal field, ordinary principles of conflict preemption continue to apply. Indeed, the Court emphasized that "[a] state prohibition on

nuclear construction for safety reasons would also be in the teeth of the Atomic Energy Act's objective to insure that nuclear technology be safe enough for widespread development and use—and would be preempted for that reason." *Id.* at 213. Virginia's uranium mining ban not only falls within the AEA's prohibited field; it also directly conflicts with federal law in just this way.

State law is in conflict with federal law if, *inter alia*, it "stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress," *Hines v. Davidowitz*, 312 U.S. 52, 67 (1941), by "upset[ting] the careful balance struck by Congress" when it enacted a scheme of federal regulation, *Edgar v. MITE Corp.*, 457 U.S. 624, 634 (1982). Here, federal law governing the use, handling, and production of nuclear materials strikes a delicate balance between two critically important national objectives. On the one hand, Congress was acutely aware that activities involving radiological materials in general—and uranium milling and tailings operations in particular—present "a serious threat to public health and safety" if they are not appropriately and safely managed. 1978 Cong. Rec., J.A.196. Congress concluded that "the [Nuclear Regulatory] Commission was more qualified to determine what type of safety standards should be enacted in this complex area," *Silkwood*, 464 U.S. at 250, and accordingly placed "the entire field of nuclear safety concerns," *PG&E*, 461 U.S. at 212, exclusively in the expert hands of the NRC.

On the other hand, "[t]here is little doubt that a primary purpose of the Atomic Energy Act was, and continues to be, the promotion of nuclear power." *Id.* at 221; *see also* S. 1717 Hearings, J.A.201 ("Of course, everybody should be permitted to mine [nuclear source] material."); Joint Committee Report, J.A.208–09 (Congress sought to foster "greater private participation" in the development of affordable "peacetime atomic power"). Federal law governing the milling of uranium and the management of tailings thus strikes a particular balance between the goals of encouraging domestic uranium development and ensuring the public health and safety against unacceptable radiological risks. So long as the expertly designed and administered federal safety standards and requirements are satisfied, Congress has made the considered judgment that uranium development can and should go forward without localist interference based on radiological risk.

Virginia's ban on uranium mining upsets the balance established by federal law in the most jarring way possible—by flat-out *prohibiting* the achievement of one of Congress's "primary purpose[s]": "the promotion of nuclear power." *PG&E*, 461 U.S. at 221. Petitioners cannot process uranium and store its tailings safely and legally as allowed by federal law if they are prohibited from mining the uranium in the first place. To appreciate the degree to which Virginia's ban frustrates the objectives of federal law, one need only imagine what would become of Congress's desire to encourage the private development and use of uranium if all 50 states enacted similar legislation, based

on localist concerns like Virginia's. *Cf. Arizona v. United States*, 132 S. Ct. 2492, 2502 (2012) ("If [the challenged] statute were valid, every State could give itself independent authority to prosecute federal registration violations, diminish[ing] the [Federal Government]'s control over enforcement and detract[ing] from the integrated scheme of regulation created by Congress." (second, third, and fourth alterations in original) (citations omitted) (quotation marks omitted)).

Indeed, the impermissibility of Virginia's indirect, de facto ban of milling and tailings management is all the more obvious in light of the *direct* route Congress created for States to take over those pieces of the NRC's jurisdiction. As discussed above, Section 2021 of the AEA was deliberately designed by Congress to "establish procedures and criteria" for the "assumption . . . by the States" of "certain of the Commission's regulatory responsibilities." 42 U.S.C. § 2021(a)(2), (4). To those ends, Congress authorized the States to "enter into agreements" with the NRC "to regulate the materials covered by the agreement" for "the duration of such an agreement." *Id.* § 2021(b).

But entering into such an agreement is not a mere formality; a State seeking to reach an agreement with the NRC must first convince the expert federal regulators that its proposed regulations are "compatible with the Commission's program for the regulation of [the] materials [covered by the agreement]," and that they are "adequate to protect the public health and safety with respect to [those] materials." *Id.* § 2021(d)(2). After all, it was Congress's concern that the States are

ill-equipped "to determine what type of safety standards should be enacted in this complex area" that led it to "prohibit [them] from regulating the safety aspects of nuclear development" to begin with. *Silkwood*, 464 U.S. at 250. It thus ensured that a State is not allowed to take the regulatory tiller under Section 2021 unless and until the experienced regulators at the NRC are satisfied that the State's regulatory program and personnel are sufficiently advanced and trained to advance the AEA's twin aims of promoting the development of nuclear energy while also assuring that the public health and safety are protected from radiological harm.

Congress has thus provided Virginia a path by which the Commonwealth can assume regulatory jurisdiction over milling and tailings management, but it has coupled that avenue with strict procedural safeguards. Virginia's *outright de facto ban* on milling and the storage of tailings circumvents those congressionally prescribed procedures. It is thus preempted. *See Gade v. National Solid Wastes Mgmt. Ass'n*, 505 U.S. 88, 98–101 (1992) (holding that Illinois's attempt to enforce training standards for certain hazardous waste workers that were stricter than the Occupational Safety and Health Administration's ("OSHA") requirements was preempted because "the only way a State may regulate an OSHA-regulated occupational safety and health issue is pursuant to an approved state plan that displaces the federal standards," and "[i]f a State could supplement federal regulations without undergoing the [Congressionally designed]

approval process," then those procedural protections "would easily be undercut").

The panel majority below ignored this reasoning, suggesting that allowing States to frustrate uranium development does not actually obstruct the AEA's purposes. "[O]ver ninety percent of the uranium used by the country's atomic-energy industry is imported," the panel majority noted, and "if push comes to shove, the Atomic Energy Act allows the federal government to forcibly expand the production of domestic source material" by condemning uranium deposits and mining the ore itself. Pet.App.19a.

These contentions are deeply unpersuasive. As both Congress and the executive branch have repeatedly found, our dependency on foreign uranium is *an acute source of concern*, not a reason to permit State laws to even *further* constrict our limited domestic supply. *See supra*, pp. 6–8, 53–54. And forcing the federal government to condemn and pay just compensation for any uranium deposits it wishes to mine *would itself* be directly contrary to the purposes of the AEA. That statute, after all, was enacted to "encourage[] *the private sector* to become involved in the development of atomic energy for peaceful purposes," *PG&E*, 461 U.S. at 207 (emphasis added), not to burden the taxpayer with an expensive federal takeover of the industry.

CONCLUSION

The Court should reverse the judgment of the Fourth Circuit.

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Respectfully submitted,

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