No. 16-1275

IN THE

Supreme Court of the United States

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

v.

JOHN WARREN, *et al.*,
Respondents.

On Petition for a Writ of Certiorari to the United States Court of Appeals for the Fourth Circuit

BRIEF OF SENATOR TOM COTTON, SENATOR JIM INHOFE, AND SENATOR TED CRUZ AS *AMICI CURIAE* IN SUPPORT OF PETITIONERS

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INTEREST OF *AMICI*[1]

Amici curiae are three currently serving United States Senators, with distinct interests in the national security and federalism issues presented by this case. Specifically, *amici* have an interest in the proper interpretation of the Atomic Energy Act's preemptive scope, to ensure that local interests do not circumvent federal priorities on issues of national security. Domestically produced nuclear material is one such issue. Not only is it critical to the Nation's security and defense strategy, it also affects the United States' status as an independent and forward-looking leader on the global stage. *Amici's* experience make them uniquely situated to address the strategic importance of national nuclear policy. Moreover, *amici* are responsible for developing legislation relating to nuclear policy and thus have a vested interest in ensuring that federal law is both respected and effectuated.

Senator Tom Cotton represents the State of Arkansas and serves on the Senate Committee on Armed Services and the Senate Select Committee on Intelligence. His assignments grant him a distinct perspective on the need for nuclear material relative to military defense and readiness in today's geopolitical climate. Thus, he is acutely aware of the risks in failing to fully meet that need.

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[1] No counsel for a party authored this brief in whole or in part, and no party or counsel for a party made a monetary contribution intended to fund the preparation or submission of this brief. No one other than *amici curiae*, its members, or its counsel made a monetary contribution to the preparation or submission of this brief. Counsel for *amici curiae* timely contacted counsel for all parties, who provided consent to the filing of this brief.

Senator Jim Inhofe represents the State of Oklahoma and serves on the Senate Committee on Armed Services. He also chairs the Subcommittee on Readiness and Management Support. In that capacity, Senator Inhofe is responsible for overseeing policy relating to military readiness and construction, defense energy and environmental programs, and conventional ammunition procurement. Senator Inhofe has a particular interest in the role nuclear energy plays in defense readiness.

Senator Ted Cruz represents the State of Texas and serves on the Senate Committee on Armed Services. As part of his work on that Committee, Senator Cruz is responsible for advancing policy related to the Department of Defense, military research and development, and nuclear energy. Senator Cruz has long been an advocate for a strong and cohesive national defense.

As part of their service on the Committee on Armed Services, *amici* are also members of the Subcommittee on Strategic Forces. The Subcommittee on Strategic Forces is responsible for overseeing policy on nuclear and strategic forces, nuclear defense, defense environmental management programs, and arms control and non-proliferation programs. The subcommittee also has oversight over several agencies that are devoted to nuclear safety and defense. Accordingly, *amici* are intimately familiar with the very issues that drove Congress to first delineate responsibility for nuclear safety among the federal government and the states, and *amici* continue to work on those issues committed to the federal government by the Atomic Energy Act.

In light of their collective experiences and perspectives, *amici* agree that national interests require the Atomic Energy Act's jurisdictional balance be re-

spected. Because the decision below disrupts that balance, thereby jeopardizing national interests, *amici* agree with Petitioners that the Court should grant the writ.

INTRODUCTION

The Atomic Energy Act ("the Act") and its many amendments memorialize Congress's cumulative attempt to grapple with the military, political, social, and economic consequences of harnessed nuclear power and to allocate responsibility for those consequences within a legislative and regulatory framework.

Initially, "the development of nuclear power [was] a Government monopoly," *Duke Power Co.* v. *Carolina Envtl. Study Grp., Inc.*, 438 U.S. 59, 63 (1978), responsibility for which was vested in the civilian-led Atomic Energy Commission ("the Commission").[2] However, within just a few years, Congress recognized the value in private-sector involvement, and, in 1954, amended the Act to permit private ownership and development of nuclear power under the Commission's watchful eye.

But in opening the nuclear energy industry to private ownership and development, Congress also opened the door to state regulation over those private enterprises. Confusion soon erupted over the permissible extent and manner of state regulation, with many states ill-equipped to take the reins. To resolve this jurisdictional crisis, Congress amended the 1954 Act to delineate federal and state responsibilities.

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[2] The Energy Reorganization Act of 1974, 42 U.S.C. § 5801 *et seq.*, abolished the Atomic Energy Commission and transferred its regulatory functions to the Nuclear Regulatory Commission. References to "the Commission" shall refer to both agencies.

Specifically, Congress crafted an agreement-based scheme whereby the Commission could transfer certain regulatory functions to the states. The framework, which remains in place today, reflects congressional determination as to which responsibilities may safely be transferred to state or local authorities and which must remain in the care of the Commission.

The Commonwealth of Virginia's ban on uranium *mining* purports to regulate an activity properly within the Commonwealth's jurisdiction. However, in purpose and effect, the ban targets activities (uranium *milling* and *tailings* storage and management) reserved exclusively for regulation by the Commission. Pursuant to this Court's precedents, which turn on the motivation and effect of the statute vis-à-vis radiological safety, the ban is preempted by the Act. The same is true under the Second and Tenth Circuits' approaches in applying those precedents. However, by refusing to look beyond the plain language of the ban and by willfully blinding itself to the ban's purpose, the Fourth Circuit disregarded this Court's teachings and departed from the approach of its sister circuits, creating a split in circuit authority.[3] In so doing, the decision upends the Act's jurisdictional balance without considering the national and international consequences that flow from the military, political, and economic interests at stake.

The Fourth Circuit's failure to heed traditional principles of preemption threatens the establishment of uniform federal policy over a strategic national resource at a critical time. The domestic production and development of uranium is foundational to the Nation's security, but the domestic industry is not

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[3] The Petition addresses in detail the split in circuit authority and *amici* do not repeat the argument here.

currently capable of meeting those needs fully. Moreover, the decision below affects not only uranium production and development but *all* activities under the Commission's exclusive jurisdiction. It thus carries far-reaching and serious risks should the decision stand.

Accordingly, *amici* urge the Court to grant Petitioners' writ.

THE FOURTH CIRCUIT'S ERRONEOUS INTERPRETATION AND APPLICATION OF THE ACT'S PREEMPTION FRAMEWORK AFFECTS ISSUES OF NATIONAL IMPORTANCE THAT WARRANT GRANTING OF THE WRIT.

A. The Act's Preemption Framework Reflects Congress's Careful Determination Of Federal And State Competencies Balanced Against Federal And State Interests.

The history of the development of nuclear energy and technology is uniquely federal in nature. While the atomic bomb dramatically illuminated the military and political implications of atomic energy, the role atomic energy would come to play upon civilian life was less clear. Congress struggled to develop a legislative framework capable of handling atomic energy's unique policy issues. *See, e.g.*, Byron S. Miller, *A Law is Passed — The Atomic Energy Act of 1946*, 15 U. Chi. L. Rev. 799 (1948). Reflecting Congress's then-judgment that the federal government was the only body prepared to address these policy issues, the inaugural 1946 version of the Act monopolized nuclear energy under federal authority by way of the Commission. The 1946 Act further declared a national policy — "subject at all times to the paramount objective of assuring the common defense and securi-

ty" — to direct efforts toward "improving the public welfare, increasing the standard of living, strengthening free competition in private enterprise, and promoting world peace." The Atomic Energy Act of 1946, ch. 724, § 1, 60 Stat. 755, 756.

Within a decade, however, Congress "concluded 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." *Duke Power Co.*, 438 U.S. at 63. The Atomic Energy Act of 1954 encouraged private development "by opening the door to private construction, ownership, and operation of commercial nuclear-power reactors under the strict supervision of the [Commission]." *English* v. *Gen. Elec. Co.*, 496 U.S. 72, 81 (1990).

Termination of the federal monopoly on the ownership and development of nuclear energy confronted states with a variety of potential health and environmental hazards that they had previously been precluded from regulating. *Federal-State Relationships in the Atomic Energy Field: Hearings Before the Joint Comm. on Atomic Energy*, 86th Cong. 25 (1959) ("*Hearings*"). Consequently, there was a concerted effort between federal and state agencies to cooperate in regulating those hazards, with the federal government providing extensive assistance in the form of information-sharing, training, funding, and model regulations and standards. *Id.* at 25-26.

Nonetheless, there became evident a "need for clarification of the responsibilities of the Federal and State Governments for regulating atomic energy." *Id.* at 26; *see also*, *id.* at 393. Two competing considerations drove the uncertainty as to which government was properly responsible for nuclear hazards. On the

one hand, providing for the welfare and public health of its citizens had traditionally fallen within the states' core police powers. *Id.* at 20, 274, 289. Conversely, many questioned the legal enforceability of any state regulation on the subject. As an initial matter, "the 1954 act set[ ] forth a directive to the Federal agency to adopt a comprehensive scheme of regulations," and courts frequently treated such direction as preempting any corresponding state regulation. *Id.* at 126. Moreover, "under the act, the objectives of Federal regulations are to assure protection of the public while not unduly burdening industrial progress, and thus more restrictive requirements by the State might be deemed as interference with national nuclear development policy." *Id.*

Federal, state, and industry officials near universally agreed on the need for clarification as to the extent of state authority over nuclear energy. How much and which types of authority were more hotly debated, complicated by the fact that then-existing state efforts and competencies were far from uniform. *See*, *id.* at 127-30, 131, 394.

An early bill drafted by the Commission "provided for the exercise of dual or concurrent jurisdiction by both the [Commission] and the States over activities licensed by the Commission." *Id.* at 27. To minimize "inconsistency," the proposed bill excluded licensing responsibilities already exercised by the Commission and provided that state requirements "may not be 'in conflict with' those adopted by the Commission." *Id.* at 290. However, the notion of concurrent jurisdiction elicited concerns over duplication of efforts, industry burden from conflicting and overlapping requirements, and which government would prevail in the event of conflicting standards or decisions, particularly as it came to overregulation. *Id.* at 20, 120,

129, 131, 174. Consequently, shared federal and state jurisdiction over radiological safety was rejected. *Id.* at 290.

Instead, Congress

> provide[d] a statutory framework within which the States may assume an independent regulatory role in extensive areas now occupied by the Atomic Energy Commission on a basis which will assure appropriate protection for public health and safety and compatibility between the regulatory programs of the States and those of the Commission.

Id. at 290. Specifically, the legislation empowered the Commission to enter into agreements with state governors to transfer responsibilities from the Commission to the states upon a finding by the Commission that the state has an adequate program in place to appropriately regulate the material. S. Rep. No. 86-870, at 11 (1959).

Certain regulatory responsibilities, because of their nature, were excepted from the Act's agreement-transfer scheme. The federal government retained exclusive jurisdiction over "areas in which the technical safety considerations are of such complexity that it is not likely that any State would be prepared to deal with them during the foreseeable future," as well as those "areas as to which interstate, national, or international considerations seem to be paramount." *Hearings* at 291. Also excepted were activities associated with high levels of radioactive hazards. *Id.* As reported by the Joint Committee on Atomic Energy: "These are areas which, because of their special hazards, or for reasons of Federal responsibility, are believed desirable for continued re-

sponsibility by the Commission." S. Rep. No. 86-870, at 10.

With regard to those responsibilities that may be devolved to the states, once an agreement is established, the Act provides that, "[d]uring the duration of such an agreement . . . 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." 42 U.S.C. § 2021(b) (emphasis added). Otherwise, state and local authorities were, and are still, free "to regulate activities for purposes *other than* protection against radiation hazards." *Id.* § 2021(k). In other words, "State laws and regulations concerning the control of radiation hazards from byproduct, source, and special nuclear materials shall not be applicable except pursuant to an agreement entered into with the Commission."[4] *Hearings* at 488-89; *see also* S. Rep. No. 86-870, at 12 ("As indicated elsewhere, the Commission has exclusive authority to regulate for protection against radiation hazards until such time as the State enters into an agreement with the Commission to assume such re-

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[4] This language originally appeared in one of the near-final proposed bills, but was subsequently removed "as unnecessary," because "[w]ith or without this sentence, in order for a State to so regulate or license [materials under the Act] it must first establish an adequate program for this purpose and enter into an agreement with the Commission." S. Rep. No. 86-870, at 3. The removal was "*not* intend[ed] to change the substantive effect of the bill" and was "*not* intend[ed] to leave any room for the exercise of concurrent jurisdiction by the States to control radiation hazards." *Hearings* at 500 (emphases added). Rather, it meant to provide courts with "greater latitude in sustaining certain types [of laws, (*e.g.*, zoning requirements)] which have *purposes other than control of radiation hazards*, even though such requirements might have an *incidental* effect upon the use" of material licensed by the Commission. *Id.* (emphases added).

sponsibility."); S. Rep. No. 86-870, at 3 ("[I]n order for a State to so regulate or license [materials covered by the Act], it must first establish an adequate program for this purpose and enter into an agreement with the Commission.").

The Act's legislative history demonstrates the careful consideration with which the Committee allocated federal and state responsibilities for nuclear safety. In so doing, the Committee considered both the competencies of the states as well as the national or international implications or complications that may flow from an activity regulated by the Act. Truly local concerns in the way of traditional public health and safety were left to the province of the states while issues of federal significance, including those highly technical and highly hazardous activities, were committed exclusively to the Commission's control. For those regulatory aspects that could potentially be transferred to the states, the federal government assumed responsibility for supervising that transition, including satisfying itself that the state has in place a regulatory scheme that both adequately protects against radiological harms *and* meets federal expectations for achieving the purposes of the 1954 Act — namely, the private development and use of nuclear energy for peacetime purposes, subject to the national interest in common defense and security, *see* 42 U.S.C. § 2011; S. Rep. No. 83-1699, at 3, 4 (1954).

B. The Fourth Circuit's Misinterpretation Of The Act's Preemptive Scope Upsets The Federal/State Jurisdictional Balance And Permits State And Local Governments To Override The Federal Government On Issues Of National Importance.

"[T]he federal government has occupied the entire field of nuclear safety concerns, except the limited powers expressly ceded to the States." *Pac. Gas & Elec. Co.* v. *State Energy Res. Conservation & Dev. Comm'n*, 461 U.S. 190, 212 (1983). In line with traditional tenets of preemption that look to "whether 'the matter on which the State asserts the right to act is in any way regulated by the Federal Act,'" *id.* at 213 (quoting *Rice* v. *Santa Fe Elevator Corp.*, 331 U.S. 218, 236 (1947)), "the Court defined the pre-empted field, in part, by reference to the motivation behind the state law," *English*, 496 U.S. at 84. The remaining "part of the field is defined by the state law's actual effect on nuclear safety." *Id.* In other words, "state regulation of matters directly affecting" aspects of radiological safety committed exclusively to the federal government could also impermissibly intrude upon the preempted field. *Id.*

Taken together, and contrary to the Fourth Circuit's conclusion, this Court has made clear that the preemptive scope is not limited to the "plain language" of the challenged statute. *Contra* Pet. App. 14a-18a. Two other Circuit Court of Appeals that have addressed this issue have reached the same conclusion. *See Entergy Nuclear Vt. Yankee, LLC* v. *Shumlin*, 733 F.3d 393 (2d Cir. 2013); *Skull Valley Band of Goshute Indians* v. *Nielson*, 376 F.3d 1223 (10th Cir. 2004). The *Entergy* court explicitly noted that their "inquiry does not end at the text of the

statute." *Entergy Nuclear Vt. Yankee*, 733 F.3d at 416. And in *Skull Valley*, the Tenth Circuit went beyond the plain language of statutory provisions that transferred control from local to state authority of highways surrounding a spent nuclear fuel storage facility and that also required state approval prior to granting any right of way to companies engaged in the transportation or storage of spent nuclear fuel. *Skull Valley*, 376 F.3d at 1252-53. On the extra-textual record, the Tenth Circuit agreed with the district court that the provisions were enacted for reasons of radiological safety. *Id.*

There is sound reason for pulling back the curtain in these cases. In preempting a field of regulation, Congress has determined that an area of law is of such significance or national import that the field must be governed by a single, national policy for which state or local authorities may not substitute their own judgments. State or local authorities are not permitted to wordsmith their way around Congress's determination. *Cf. Entergy Nuclear Vt. Yankee*, 733 F.3d at 416 (explaining that courts do not "blindly accept the articulated purpose . . . for preemption purposes," because that would permit states to "nullify nearly all unwanted federal legislation" (quoting *Greater N.Y. Metro Food Council, Inc.* v. *Giuliani*, 195 F.3d 100, 108 (2d Cir. 1999)).

But by refusing to look past the plain language of a statute or regulation, the Fourth Circuit has given state and local authorities carte blanche to override federal policy concerning nuclear material and radiological hazards, so long as the pertinent language does not purport to regulate an activity under the Commission's exclusive jurisdiction. The Fourth Circuit's decision thus risks state subversion of an important national policy. The danger is particularly

acute here given the public penchant to stigmatize localities hosting nuclear facilities or to otherwise perceive the development of nuclear energy as unsafe, all out of fear regarding radiological hazards emanating from nuclear waste. *See, e.g.*, M.V. Ramana, *Nuclear power and the public*, 67 Bull. of the Atomic Scientists, July 1, 2011, at 43-51. Public hostility is frequently manifested in state or local laws that attempt to dismantle what the federal government has already approved. *See, e.g.*, *Skull Valley*, 376 F.3d at 1227-30 (describing state regulations enacted to prevent a spent nuclear fuel storage facility from becoming operational). Indeed, local concern regarding the radiological hazards associated with the processing of uranium and subsequent storage of nuclear waste has sustained Virginia's ban on uranium mining since its inception.[5]

The impact of the holding below is not limited just to the domestic production of uranium. The Fourth Circuit's rubberstamp approach would apply to *all* state legislation or regulations challenged under the Act. As a result, state and local authorities could un-

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[5] *See, e.g.*, Pet. App. 239a-297a; Associated Press, *Proposed East Coast Uranium Mine Dividing Va.*, USA Today (Jan. 26, 2013), https://www.usatoday.com/story/news/nation/2013/01/26/virginia-uranimum-mine/1866489/; Jonathon Wilson, *Rural Community Debates Pros and Cons of Uranium Mining*, WAMU (Mar. 29, 2013), http://wamu.org/story/13/03/29/rural_community_debates_pros_and_cons_of_uranium_mining/; Ana Komnenic, *Amid Fierce Political Opposition, US Uranium Miner Suspends Mine Plans*, Mining.com (Dec. 15, 2013), http://www.mining.com/amid-fierce-political-opposition-us-uranium-miner-gives-up-on-one-of-the-worlds-largest-uranium-deposits-66417/; KTAR Newsroom, *Drive to Mine Uranium in Va. Comes to Quiet Pause*, KTAR News (Dec. 14, 2013), http://ktar.com/story/112903/drive-to-mine-uranium-in-va-comes-to-quiet-pause/.

dermine federal policy on a host of nuclear-related issues by indirectly regulating activities over which the Commission retains exclusive jurisdiction. The intrusion becomes even more concerning given that the Act's preemptive boundaries reflect Congress's and the Commission's judgments as to which radiological activities and associated hazards fall within state and local competencies. The remaining activities and hazards are beyond the states' capabilities such that they require explicit Commission approval for transfer or are not eligible for transfer in the first instance. *See Silkwood* v. *Kerr-McGee Corp.*, 464 U.S. 238, 250 (1984) (explaining that the division of authority between state and federal government was premised on technical competency). The deliberateness with which Congress divided responsibilities under the Act, coupled with the importance of the subject-matter regulated by the Act necessitate intervention by this Court.

C. The Development And Availability Of Nuclear Material, Including The Domestic Production Of Uranium, Is A National Strategic Interest Congress Sought To Protect.

As Judge Traxler observed in his dissent below, "[t]he stakes in this case are significant." Pet. App. 21a. *Amici*, as sitting Senators and members of the Senate Committee on Armed Services — including the subcommittee charged with overseeing nuclear defense policy — are uniquely situated to speak to those stakes.

Foremost, the availability and development of uranium, and particularly, the *domestic production* of uranium, is integral to the Nation's security. United States treaty obligations require uranium used for defense purposes to be met "*only* with enriched ura-

nium produced by and procured from domestic sources using U.S. enrichment technology." George David Banks & Michael Wallace, Ctr. for Strategic & Int'l Studies, *Recapturing U.S. Leadership in Uranium Enrichment* 5 (Nov. 2013). Because of this requirement, the United States is not currently capable of generating any enriched uranium to legally use for defense purposes.

Although a priority at the height of the Cold War, domestic production of uranium faltered under market costs resulting from heavily subsidized European enriched uranium and the importation of enriched uranium from Russia pursuant to the Megatons to Megawatts program.[6] *Id.* at 2. In 2016, domestic production of uranium concentrate came from just seven facilities in three states, and was the lowest annual domestic production since 2005 and 13% lower than the output from the prior year. U.S. Energy Info. Admin., *U.S. Uranium Production Lowest Since 2005*, Today in Energy (Feb. 16, 2017), https://www.eia.gov/todayinenergy/detail.php?id=29992. The increasingly diminished output runs counter to the congressional goal of encouraging the domestic production of mining in service to the national defense. *See* 42 U.S.C. §§ 2296b-3(a), -6(a)-(b).

There is also only a single remaining enrichment plant in the United States, which is European-owned and uses foreign-origin enrichment technology and therefore cannot supply enriched uranium for defense

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[6] From 1994 through 2013, nearly half of the uranium used domestically came from Russia. World Nuclear Ass'n, *US Nuclear Fuel Cycle* (last updated May 8, 2017), http://www.world-nuclear.org/information-library/country-profiles/countries-t-z/usa-nuclear-fuel-cycle.aspx.

purposes.[7] Banks & Wallace, *supra*, at 3. While experts suggest that the United States has sufficient high-enriched uranium and depleted material to meet defense needs for the foreseeable future, they note that stockpiles of low-enriched uranium, used to produce the quick-decaying tritium that is essential for several military applications, are far more limited. *Id.* at 8-9. Although high-enriched uranium can be downblended to produce low-enriched uranium, because the United States "no longer has any capacity to produce [high-enriched uranium] to replace consumed material," the availability of high-enriched uranium for this purpose is unknown, and most high-enriched stocks "are reserved primarily for defense program strategic reserves and for production of fuel for the U.S. Navy." *Id.* at 9.

Moreover, the demand for high-enriched uranium is about to surge, likely further depleting current stores. The navy has emphasized an increased focus on patrolling the world's oceans and various waterways as critical to maintaining the Nation's security interests. *See* CBS News, *Inside the U.S. Navy's Newest Fastest Submarines* (May 10, 2017), http://www.cbsnews.com/news/us-navy-newest-submarine-squad-virginia-class/. And an executive program to build a brand new fleet of nuclear submarines has previously been approved, Anthony Capaccio, *Fleet of 12 Nuclear Submarines in Line for Pentagon Approv-*

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[7] A demonstration plant, American Centrifuge, was intended to develop new U.S. technology for enrichment but the Department of Energy cut all funding for the plant in September 2015, and the plant demobilized shortly thereafter. *See* World Nuclear News, *American Centrifuge Demonstration Plan Completes Operations* (Feb. 22, 2016), http://www.world-nuclear-news.org/C-American-Centrifuge-demonstration-plant-completes-operations-2202167.html.

al, Bloomberg (Jan. 4, 2017), https://www.bloomberg.com/news/articles/2017-01-05/new-nuclear-armed-subs-win-pentagon-approval-before-obama-leaves, and garners significant support from *amici* and other members of the Committee on Armed Services. The ability to quickly expand any nuclear fleet is constrained, in part, by the ability of nuclear fuel producers to ramp up the supply of fuel. *See* Reuters, *Trump's Navy Warship Expansion Plan Faces Major Obstacles*, Newsweek (Mar. 20, 2017), http://www.newsweek.com/donald-trump-navy-warships-navy-expansion-571281.

The limited availability of home-grown enriched uranium also damages the United States' credibility as a world leader in non-proliferation policy. Any nuclear fuel developed from and by U.S. technology entitles the United States to control all subsequent use of that fuel. Banks & Wallace, *supra*, at 10. To prevent foreign powers from developing their own enrichment technology, ostensibly for peaceful purposes, the United States has, previously, sold those countries the uranium, already enriched, with the condition that it be used solely for peaceful purposes. *Id.* With the loss of U.S. market power, however, the United States' negotiating leverage is also greatly diminished and the United States must now rely on foreign powers such as France and Russia to fill the gap. *Id.* at 10-11.

In addition to military and defense concerns, there are also significant economic and geopolitical interests at stake. Domestic mining makes up just a small fraction of the fuel used in domestic reactors. In fact, 94% of the uranium used in domestic nuclear plants is imported, 37% of which comes from Russia, Kazakhstan, and Uzbekistan. U.S. Energy Info. Admin., *Uranium Marketing Annual Report*, Nuclear & Ura-

nium (May 24, 2016), https://www.eia.gov/uranium/marketing/.

Because the United States is the world's largest producer of nuclear energy, World Nuclear Ass'n, *Nuclear Power in the USA* (last updated May 16, 2017), http://www.world-nuclear.org/information-library/country-profiles/countries-t-z/usa-nuclear-power.aspx, the gap between what domestic uranium producers can deliver against what domestic reactors require results in an unrealized domestic economic benefit that is instead exported to countries such as Russia, Kazakhstan, and Uzbekistan. *See also* World Nuclear Ass'n, *US Nuclear Fuel Cycle*, *supra* (noting that, "[t]he USA has nuclear fuel production capacity insufficient for domestic needs").

The nearly complete reliance on uranium imports not only denies the domestic uranium industry important economic benefits, it also permits foreign countries to influence the United States' ability to ramp up nuclear production or to leverage their uranium production as a political bargaining chip. The dangers that come with dependency underscore the need for energy security in a time of increased global tension. *Amici* support the prudent development of U.S. natural resources to secure U.S. interests and insulate the Nation from undue external influence. The current administration has also signaled that energy security is a vital component of the Nation's geopolitical security. *See*, *e.g.*, Presidential Executive Order on Promoting Energy Independence and Economic Growth (Mar. 28, 2017), https://www.whitehouse.gov/the-press-office/2017/03/28/presidential-executive-order-promoting-energy-independence-and-economi-1. Domestic production of energy sources is likely to be a key component of that platform.

Experts also predict "a significant expansion of global nuclear power," with China, India, and Russia making up nearly 40% of the world's fleet of nuclear reactors by 2030. Banks & Wallace, *supra*, at 11; *see also*, U.S. Energy Info. Admin., *China Expected to Account for More than Half of World Growth in Nuclear Power Through 2040*, Today in Energy (Sept. 28, 2016). With this expansion will likely come increased fuel costs as domestic owners and operators compete with new foreign entrants. Banks & Wallace, *supra,* at 11. Notably, in the last six years, five nuclear plants have closed, with their owners citing economic reasons as the cause. U.S. Energy Info. Admin., *Fort Calhoun Becomes Fifth U.S. Nuclear Plant to Retire in Past Five Years*, Today in Energy (Oct. 31, 2016). Several other plants have announced retirement plans in the near future, many well before the plants' scheduled license expiration. *Id.* A decrease in domestic supply of nuclear power forces utility companies either to supply energy from a new source or to import electricity from other countries, frustrating national efforts to both reduce energy dependence and encourage the private investment and development of nuclear energy. *Id.*; *see also*, U.S. Energy Info. Admin., *U.S. Nuclear Capacity and Generation Expected to Decline as Existing Generators Retire*, Today in Energy (May 12, 2017), https://www.eia.gov/todayinenergy/detail.php?id=31192.

The declining productivity of domestic nuclear power poses significant strategic risks that threaten this Nation's security. Recognizing and foreshadowing the need for an effective and uniform policy regarding nuclear development, the 1959 amendments to the Act affirmatively removed certain regulatory decisions from the states and committed them exclusively to the judgment of the Commission to allow the fed-

eral government to mitigate and remediate many of these risks. But the Fourth Circuit's needlessly formalistic approach permits states to second-guess federal judgments and undermine national policy through backdoor legislation. This Court and other Circuit Courts of Appeals have established rules to prevent as much; the Fourth Circuit must be realigned to do the same.

CONCLUSION

For the foregoing reasons, the Court should grant Petitioners' writ.

Respectfully submitted,

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May 25, 2017

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