

**PUBLISHED**

UNITED STATES COURT OF APPEALS  
FOR THE FOURTH CIRCUIT

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**No. 16-1005**

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VIRGINIA URANIUM, INC.; COLES HILL, LLC; BOWEN MINERALS, LLC;  
VIRGINIA ENERGY RESOURCES, INC.,

Plaintiffs – Appellants,

v.

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; JAMES P. SKORUPA, in his official capacity as Director of the Virginia Department of Mines, Minerals and Energy's Division of Mineral Mining,

Defendants – Appellees,

and

TERRY MCAULIFFE, in his official capacity as Governor of Virginia; MAURICE JONES, in his official capacity as Virginia Secretary of Commerce and Trade; MOLLY J. WARD, in her official capacity as Virginia Secretary of Natural Resources; DAVID K. PAYLOR, in his official capacity as Director of the Virginia Department of Environmental Quality; ROBERT J. WELD, in his official capacity as Regional Director of the Department of Environmental Quality's Blue Ridge Regional Office; MICHAEL DOWD, in his official capacity as Director of the Virginia Department of Environmental Quality's Air Division; MELANIE D. DAVENPORT, in her official capacity as Director of the Virginia Department of Environmental Quality's Water Permitting Division; JUSTIN WILLIAMS, in his official capacity as Director of the Virginia Department of Environmental Quality's Division of Land Protection and Revitalization,

Defendants.

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THE NUCLEAR ENERGY INSTITUTE,

Amicus Curiae,

ROANOKE RIVER BASIN ASSOCIATION; DAN RIVER BASIN ASSOCIATION,

Amici Supporting Appellees.

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Appeal from the United States District Court for the Western District of Virginia, at Danville. Jackson L. Kiser, Senior District Judge. (4:15-cv-00031-JLK-RSB)

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Argued: October 28, 2016

Decided: February 17, 2017

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Before TRAXLER, DIAZ, and HARRIS, Circuit Judges.

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Affirmed by published opinion. Judge Diaz wrote the majority opinion, in which Judge Harris joined. Judge Traxler wrote a dissenting opinion.

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**ARGUED:** Charles J. Cooper, COOPER & KIRK, PLLC, Washington, D.C., for Appellants. Stuart Alan Raphael, OFFICE OF THE ATTORNEY GENERAL OF VIRGINIA, Richmond, Virginia, for Appellees. **ON BRIEF:** Michael W. Kirk, John D. Ohlendorf, COOPER & KIRK, PLLC, Washington, D.C., for Appellants. Mark R. Herring, Attorney General of Virginia, Rhodes B. Ritenour, Deputy Attorney General, Jonathan Duncan Pitchford, Assistant Attorney General, Matthew R. McGuire, Assistant Attorney General, Trevor S. Cox, Deputy Solicitor General, OFFICE OF THE ATTORNEY GENERAL OF VIRGINIA, Richmond, Virginia, for Appellees. William C. Cleveland, Caleb A. Jaffe, SOUTHERN ENVIRONMENTAL LAW CENTER, Charlottesville, Virginia, for Amici Roanoke River Basin Association and Dan River Basin Association. Peter C. Meier, PAUL HASTINGS LLP, San Francisco, California; Ellen C. Ginsberg, Jonathan M. Rund, Anne W. Cottingham, NUCLEAR ENERGY INSTITUTE, Washington, D.C., for Amicus Nuclear Energy Institute.

DIAZ, Circuit Judge:

Virginia Uranium, Inc., Coles Hill, LLC, Bowen Minerals, LLC, and Virginia Energy Resources, Inc. (collectively “Virginia Uranium”) appeal the district court’s dismissal of their complaint for failure to state a claim upon which relief can be granted. Because we agree with the district court that federal law does not preempt state regulation of conventional uranium mining, we affirm.

I.

A.

The federal Atomic Energy Act (“AEA” or “Act”) regulates several aspects of nuclear power generation in the United States, including “source material” such as uranium. 42 U.S.C. §§ 2011, 2014(z). The Nuclear Regulatory Commission (“NRC”) enforces the provisions of the Act. *Id.* §§ 2201, 5801, 5841.

Uranium is the predominant source of fuel for nuclear power plants and fissile material for nuclear warheads. Uranium ore can be recovered from a deposit either through in situ leaching or by conventional mining such as an open-pit or underground mine.<sup>1</sup>

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<sup>1</sup> In situ leaching is a process by which chemicals are pumped through drilled wells into uranium deposits, altering the ore and pumping a uranium solution back to the surface.

Once removed from the ground, uranium ore is milled into a refined product called “yellowcake.” Yellowcake can be used to make nuclear fuel, but the remaining unused material—known as “tailings”—is radioactive and must be stored securely.

B.

In the early 1980s, a uranium deposit was discovered in Pittsylvania County, Virginia on land owned by Coles Hill, LLC and Bowen Minerals, LLC. Containing 119 million pounds of uranium ore, the Coles Hill deposit was then (and remains) the largest known uranium deposit in the United States.

The Virginia General Assembly reacted to this discovery by calling for the state Coal and Energy Commission to “evaluate the environmental effects . . . and any possible detriments to the health, safety, and welfare of Virginia citizens which may result from uranium exploration, mining or milling.” 1981 Va. Acts 1404. Before the Commission completed its report, however, the General Assembly imposed a moratorium (or “ban”) on uranium mining “until a program for permitting uranium mining is established by statute.” Va. Code Ann. § 45.1-283.

The Commission ultimately reported to the Governor and General Assembly in 1985 that the state could lift “the moratorium on uranium development” if it followed “essential specific recommendations . . . of the task force” and enacted laws to tightly regulate the industry. J.A. 534–38. The recommendations included limiting public exposure to radiation, issuing mill and tailings licenses in cooperation with the NRC, and regulating hazardous waste. The benefits of uranium mining in Virginia, the Commission

found, “outweighed the costs 26 to 1.” J.A. 543. Despite the Commission’s recommendation, the General Assembly did not move to lift the moratorium.

In January 2013, Virginia State Senators John Watkins and Richard Saslaw sponsored a bill to create a licensing scheme for the issuance of uranium mining permits. The bill was never voted on, and was later withdrawn. To date, no such program has been established, and the ban remains in effect.

Stymied in its efforts to mine the Coles Hill deposit, Virginia Uranium brought suit in the United States District Court for the Western District of Virginia, asking the court to declare the ban preempted by federal law and issue an injunction compelling the Commonwealth to grant uranium mining permits.

The Defendant Commonwealth of Virginia officials (collectively the “Commonwealth”) moved to dismiss the Plaintiffs’ complaint, and Virginia Uranium moved for summary judgment. The district court granted the Commonwealth’s motion and dismissed the complaint. The court found that federal law (specifically the Atomic Energy Act) “does not . . . regulate nonfederal uranium deposits or their conventional mining.” *Virginia Uranium, Inc. v. McAuliffe*, 147 F. Supp. 3d 462, 471 (W.D. Va. 2015). Finding that the Act does not commit conventional uranium mining to the NRC’s authority, the district court distinguished the instant case from Supreme Court precedent requiring states to have a non-safety rationale to regulate activities within the NRC’s purview. The district court further held that Virginia’s ban “does not obstruct the realization of Congress’ purposes and objectives behind the [Act]” because Congress

“evinced no purpose or objective that nonfederal uranium deposits be conventionally mined.” *Id.* at 477.

This appeal followed.

## II.

We review de novo the district court’s conclusion that the Atomic Energy Act does not preempt Virginia’s ban on uranium mining. *Epps v. JP Morgan Chase Bank, N.A.*, 675 F.3d 315, 320 (4th Cir. 2012). State laws may be preempted by federal law under the Supremacy Clause, which provides that “[t]his Constitution, and the Laws of the United States which shall be made in Pursuance thereof . . . shall be the supreme Law of the Land; and the Judges in every State shall be bound thereby, any Thing in the Constitution or Laws of any State to the Contrary notwithstanding.” U.S. Const. art. VI, cl. 2.

“[T]he first and fundamental question in any pre-emption analysis is whether Congress intended to displace state law . . . .” *Wardair Canada, Inc. v. Fla. Dep’t of Revenue*, 477 U.S. 1, 6 (1986). Congressional intent to “supercede state law . . . may be found from a scheme of federal regulation so pervasive as to make reasonable the inference that Congress left no room to supplement it,” otherwise known as “field” preemption. *Pacific Gas & Elec. Co. v. State Energy Resources Conservation & Dev. Comm’n*, 461 U.S. 190, 203–04 (1983) (internal quotation marks omitted). State law may also be preempted as in “conflict” with federal law when it “stands as an obstacle to

the accomplishment and execution of the full purposes and objectives of Congress.” *Id.* at 204 (citing *Hines v. Davidowitz*, 312 U.S. 52, 67 (1941)).

Virginia Uranium offers three reasons why the Atomic Energy Act preempts Virginia’s ban on uranium mining. First, it urges that conventional uranium mining is an “activity” under Section 2021(k) of the Act and that the Commonwealth therefore may not regulate it out of concern for radiological safety. Second, it contends that even if uranium mining is not a regulated “activity” under the Act, uranium-ore milling and tailings storage are regulated activities, and because the Virginia legislature intended to and does regulate those activities, the ban is therefore preempted. Finally, Virginia Uranium says that the ban is preempted because it’s an obstacle to the full implementation of the Act’s objectives. We address these arguments in turn.

A.

We begin with Virginia Uranium’s claim that conventional uranium mining is an “activity” under Section 2021(k) of the Atomic Energy Act, which in turn means that states can’t regulate such mining for the purpose of protecting against radiation hazards.

Section 2021 of the Act, entitled “Cooperation with States,” outlines “the respective responsibilities . . . of the States and the [Nuclear Regulatory] Commission with respect to the regulation of byproduct, source, and special nuclear materials.” 42 U.S.C. § 2021(a). Subsection (k) reserves to the states the right to “regulate activities for purposes other than protection against radiation hazards.” *Id.* § 2021(k).

In *Pacific Gas*, the Supreme Court interpreted this provision as establishing the bounds of the Act’s preemptive reach. Specifically, the Court instructed that “the test of

pre-emption is whether the matter on which the state asserts the right to act is in any way regulated by the federal government.” *Pacific Gas*, 461 U.S. at 213 (internal citations omitted). If a state purports to regulate an activity that is also regulated by the Act, a court must “determine whether there is a non-safety rationale” for the state rule. *Id.* If there is not, then the state law is preempted.

The Court in *Pacific Gas* addressed California regulations imposing conditions on the construction of new nuclear power plants in the state. Utilities seeking to construct nuclear plants in California had to obtain permission from the State Energy Resources and Conservation Commission. *Id.* at 197. But the Commission would only grant a permit to build if it determined that there was “adequate capacity” for storage of spent fuel rods and that the utility would provide “continuous, on-site, full core reserve storage capacity.” *Id.* at 197–98 (internal quotation marks omitted). In passing these regulations, the California legislature denied that they were “designed to provide protection against radiation hazards” but instead were “adopted because ‘uncertainties in the nuclear fuel cycle [made] nuclear power an uneconomical and uncertain source of energy.’” *Id.* at 199–200.

The California regulations, the Court held, fell “squarely within the prohibited field.” *Id.* at 213.<sup>2</sup> After considering arguments for why the regulations might have been enacted for safety (as opposed to economic) reasons, the Court opted against “attempting

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<sup>2</sup> As the district court in the instant case noted when discussing *Pacific Gas*, the construction of a nuclear power plant is an activity “clearly committed to the NRC’s regulatory authority.” *Virginia Uranium*, 147 F. Supp. 3d at 476 (citing 42 U.S.C. § 2021(c)(1)).



to ascertain California's true motive" and instead "accept[ed] California's avowed economic purpose." *Id.* at 216. Because the regulations had a non-safety rationale, the Atomic Energy Act did not preempt them. *Id.*

Here, the Commonwealth concedes that it lacks a non-safety rationale for banning uranium mining but says that Section 2021(k) does not apply to the ban because conventional uranium mining isn't an activity regulated by the NRC. To test this contention, we assess whether the term "activities" within Section 2021(k) of the Act encompasses all activities states may regulate or merely, as the Commonwealth contends, "activities regulated by the [Nuclear Regulatory] Commission." Appellees' Br. at 35.

The Supreme Court addressed this precise question in *Pacific Gas* and sided with the limited reading of Section 2021(k) pressed by the Commonwealth here. As we noted earlier, there, the Court explained that "the federal government has occupied the entire field of nuclear safety concerns," but the bounds of that field are measured by looking to whether "the matter on which the state asserts the right to act is in any way regulated by the federal government." *Pacific Gas*, 461 U.S. at 212–13 (internal citations omitted); *see also id.* at 209–10 ("[S]ection [2021] was not intended to cutback on pre-existing state authority outside the NRC's jurisdiction."). Section 2021(k) therefore prohibits states from regulating, for safety reasons, activities that are "in any way regulated" by the federal government under the Atomic Energy Act. We agree with the district court that conventional uranium mining is not such an activity.

The Act explicitly grants the NRC authority to regulate uranium mining on federal lands, but it says nothing about the Commission's power to regulate conventional

uranium mining elsewhere. 42 U.S.C. § 2097. Section 2092 of the Act requires individuals to obtain an NRC license to “transfer, deliver, [or] receive possession of . . . any source material *after removal from its place of deposit in nature.*” 42 U.S.C. § 2092 (emphasis added). Importantly, the NRC reads this provision as “precluding [Commission] jurisdiction over uranium mining.” *In re. Hydro Resources, Inc.*, 63 N.R.C. 510, 512–13 (2006). Similarly, the NRC justifies regulating in situ mining by describing the method as “processing” uranium, over which the Commission has authority. *Id.*

When Congress has not “directly spoken to the precise question at issue,” we defer to a federal agency’s reasonable interpretation of a congressional act that the agency is charged with administering. *Nat’l Labor Relations Bd. v. Bluefield Hosp. Co.*, 821 F.3d 534, 542 (4th Cir. 2016) (citing *Chevron, U.S.A., Inc. v. Natural Res. Def. Council*, 467 U.S. 837, 842–44 (1986)). The Atomic Energy Act grants the NRC authority to enforce and promulgate rules under the Act. 42 U.S.C. § 2201. Federal law is silent on conventional uranium mining outside of federal lands, and the NRC reads this gap in the Act’s language to mean that the Commission lacks the power to regulate it.

This interpretation is reasonable in the context of the Act. Congress explicitly gave the NRC power to regulate conventional uranium mining on federal lands and to govern what happens to source material “*after its removal from its place of deposit in nature.*” *Id.* §§ 2902, 2907 (emphasis added). We think it logical to assume that, by expressly granting the NRC some authority over source material, Congress did not intend to implicitly grant broader authority. *See Barnhart v. Peabody Coal Co.*, 537 U.S. 149,

168 (2003) (explaining that the canon of *expressio unius est exclusio alterius* may apply where “it is fair to suppose that Congress considered the unnamed possibility and meant to say no to it”).

Additionally, the power to regulate mining—including uranium mining—has traditionally been reserved to the states. See *In re Hydro Resources*, 63 N.R.C. at 513. We assume that is where it remains unless Congress evinces a “clear and manifest purpose” to supersede “the historic police powers of the States.” *Wyeth v. Levine*, 555 U.S. 555, 565 (2009) (quoting *Medtronic, Inc. v. Lohr*, 518 U.S. 470, 485 (1996)). Nothing in the AEA indicates that Congress meant for the NRC to displace the states in regulating conventional uranium mining—the Act is silent on the matter.

Indeed, accepting Virginia Uranium’s more expansive reading of Section 2021(k)’s preemptive reach would mean that entities could mine free of government oversight. The states could not regulate and, on the NRC’s (reasonable) view of the Act, it too would be a passive spectator. That cannot be the law. Rather, because conventional uranium mining outside of federal lands is beyond the regulatory ambit of the Nuclear Regulatory Commission, it is not an “activity” under Section 2021(k) of the Act. As a result, the district court was correct to hold that Virginia’s ban on conventional uranium mining is not preempted.

## B.

Virginia Uranium next contends that, even if conventional uranium mining is not an “activity” under Section 2021(k) of the Act, uranium-ore milling and tailings storage are such activities. Because the ban, according to Virginia Uranium, impermissibly

attempts to regulate and has the effect of prohibiting those activities for nuclear safety reasons, it is preempted.

We agree that uranium milling and tailings storage are “activities” under Section 2021(k) because they are regulated by the NRC, and states may therefore not regulate them except for purposes other than protection against radiation hazards. *See* 42 U.S.C. §§ 2021, 5842, 7918–19; 10 C.F.R. § 40.3; *see also* *supra* Part II.A. But the plain language of the Commonwealth’s ban does not mention uranium milling or tailings storage. Va. Code Ann. § 45.1-283 (“[P]ermit applications for uranium mining shall not be accepted by any agency of the Commonwealth . . .”).

In the face of this telling omission, Virginia Uranium argues that no one “would *want* to undertake the pointless expense of constructing a mill and tailings-management complex in Virginia and transporting out-of-state uranium [ore] into the Commonwealth.” Reply Br. at 20. Given this economic reality, Virginia Uranium urges us 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. We decline the invitation.

In *Pacific Gas*, the Court warned against the “unsatisfactory venture” of “inquiry into legislative motive.” 461 U.S. at 216 (citing *United States v. O’Brien*, 391 U.S. 367, 383 (1968)). The Court reasoned that, when dealing with provisions such as Section 2021(k) that allow states to enact laws for some purposes but not others, it is “pointless” for courts to invalidate statutes that may then be reenacted with a different motive. *Id.* Rather, “it should be up to Congress to determine whether a State has misused the

authority left in its hands.” *Id.* And even if motive inquiry were useful, the Court noted that legislative intent is often impossible to discern because “[w]hat motivates one legislator to vote for a statute is not necessarily what motivates scores of others to enact it.” *Id.*

There 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 unconstitutional. In those cases, we may conduct a pretext analysis to ascertain a legislature’s true motive. *See, e.g. United States v. Windsor*, 133 S. Ct. 2675, 2693 (2013) (striking down an act of Congress because it was “motivated by an improper animus”); *North Carolina State Conference of NAACP v. McCrory*, 831 F.3d 204, 220 (4th Cir. 2016) (A law is invalid under the Equal Protection Clause if a “discriminatory purpose was . . . a motivating factor” or if “the legislature enact[ed] a law ‘because of,’ and not ‘in spite of,’ its discriminatory effect.” (internal citations omitted)). We do so in those contexts because a more searching scrutiny of legislative intent is needed in order to avoid the “circumventi[on] [of] a federally protected right.” *Gomillion v. Lightfoot*, 364 U.S. 339, 347 (1960).

But this is not such a case. Because Virginia Uranium does not allege that the Virginia legislature acted with discriminatory intent, we adhere to the edict that courts “will not strike down an otherwise constitutional statute on the basis of an alleged illicit legislative motive,” and we decline to examine why the Commonwealth chose to ban uranium mining, which it was plainly allowed to do. *O’Brien*, 391 U.S. at 383.

Virginia Uranium urges us to follow the paths forged by our sister circuits in *Skull Valley Band of Goshute Indians v. Nielson*, 376 F.3d 1223 (10th Cir. 2004), and *Entergy Nuclear Vermont Yankee, LLC v. Shumlin*, 733 F.3d 393 (2d Cir. 2013). While the courts there did strike down state laws as preempted under the AEA, the cases are distinguishable.

In *Skull Valley*, Plaintiffs challenged a host of Utah laws that, while facially within the state's police powers, surgically targeted the transportation and storage of spent nuclear fuel. 376 F.3d at 1228–30. Spent nuclear fuel storage, the Tenth Circuit found, is an activity regulated by the NRC. *Id.* at 1242. Moreover, unlike Virginia's ban on mining, all but two of the challenged Utah laws specifically mentioned this NRC-regulated activity. *Id.* at 1245–51, 1253–54.

One subset of changes to Utah's laws purported to focus solely on transportation by designating certain local roads near the site of a proposed spent nuclear fuel storage facility as "statewide public safety interest highways" and turning control over them to the state. *Id.* at 1251–52. But even this change in the law was packaged with two other transportation regulations targeting spent nuclear fuel directly. The first called for state resolution of "disputes arising out of the request to construct a railroad crossing made by an entity engaged in [spent nuclear fuel] storage and transportation," and the second required the "consent of the governor and the state legislature before the Department of Transportation [could] grant a right of way to a company engaged in the transportation or storage of [spent nuclear fuel]." *Id.*

Not surprisingly, the Tenth Circuit felt no need to engage in the sort of pretext analysis that Virginia Uranium presses here to hold that Utah was purporting to govern an NRC-regulated activity. Indeed, the Commonwealth's two-sentence moratorium on uranium mining (an activity not regulated by the NRC) pales in comparison to Utah's comprehensive scheme intended to keep spent nuclear fuel out of the state by any means.

The Second Circuit's decision in *Entergy*, on the other hand, is a straightforward application of *Pacific Gas*. Vermont law required the "explicit approval of the General Assembly" in order to operate a nuclear energy plant within the state. *Entergy*, 733 F.3d at 403. The Second Circuit sought to determine the Vermont legislature's intent only after holding that the challenged law regulated an "activity"—the operation of nuclear power plants—within the meaning of Section 2021(k) of the Atomic Energy Act. *Id.* at 415. Applying *Pacific Gas*, it was then the court's duty to determine whether the state was "impermissibl[y] motiv[ated]" by nuclear safety concerns. *Id.* at 418–19.

The Second Circuit held that "the Vermont Legislature was improperly motivated by concerns relating to radiological safety in enacting" the challenged law, and therefore, the statute was "preempted on its face by the Atomic Energy Act." *Id.* at 422. In contrast, the Commonwealth's mining ban does not purport to regulate an activity within the Act's reach, and thus we need proceed no further.

### C.

Finally, Virginia Uranium contends that the Commonwealth's ban on conventional mining is preempted as an obstacle to the full implementation of the objectives of the Atomic Energy Act. We will find state laws preempted as in conflict with federal law if

the state law “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). But we do not easily find preemption; rather we start with “the assumption that the historic police powers of the States [are not] superseded by [Federal law] unless that was the clear and manifest purpose of Congress.” *Wyeth*, 555 U.S. at 565 (quoting *Medtronic*, 518 U.S. at 485).

Determining whether a state law “stands as an obstacle” to federal law is a two-step process. First, we determine Congress’s “significant objective[s]” in passing the federal law. *Williamson v. Mazda Motor of America, Inc.*, 562 U.S. 323, 330 (2011). We then turn to whether the state law stands “as an obstacle to the accomplishment of a significant federal regulatory objective.” *Id.* (internal citations omitted).

Here, the parties do not dispute the Atomic Energy Act’s stated purpose of promoting the safe development and use of atomic energy. 42 U.S.C. § 2012; *see also Pacific Gas*, 461 U.S. at 221 (“There is little doubt that a primary purpose of the [Act] was, and continues to be, the promotion of nuclear power.”). Virginia Uranium claims that the Commonwealth has created an obstacle to that Congressional purpose by banning uranium mining outright. It asks us to “imagine what would become of Congress’s desire to encourage the development and use of uranium if *all 50 states* enacted similar legislation.” Appellants’ Br. at 56.

In fact, this hypothetical nationwide web of mining bans would have little effect. Why? For starters, over ninety percent of the uranium used by the country’s atomic-energy industry is imported, so state bans on domestic production would have negligible



effect. Moreover, as of 2015, eighteen domestic uranium recovery facilities—those that either use in situ leaching or are located on federal lands—are licensed by the NRC and thus beyond the reach of any state bans. Finally, if push comes to shove, the Atomic Energy Act allows the federal government to forcibly expand the production of domestic source material: The NRC may “purchase, condemn, or otherwise acquire . . . real property containing deposits of source material.” 42 U.S.C. § 2096. In sum, Congress’s purposes and objectives in passing the Act are not materially affected by the Commonwealth’s ban on conventional uranium mining. The district court properly dismissed this case.

### III.

For the reasons given, we affirm the district court’s judgment.

*AFFIRMED*

TRAXLER, Circuit Judge, dissenting:

At issue in this case is Virginia's right to ban the mining of uranium because of radiological safety concerns regarding uranium milling and tailings management. While Virginia's apprehension is certainly understandable, in my view Congress has taken away a state's ability to limit mining for this particular reason.

Under the federal Atomic Energy Act of 1954 (the "Act" or the "AEA"), *see* 42 U.S.C. § 2011 *et seq.*, as amended, the federal government assumed responsibility for establishing a regime to make the development of nuclear energy safe enough that the powerful forces of the private sector could be unleashed to develop that energy to the maximum extent possible. The Supreme Court in *Pacific Gas* held that Congress intended that the federal government would *exclusively* occupy the field of radiological safety concerns regarding the activities the Act regulates and, indeed, that this exclusivity is central to the Act's objectives. If Virginia sought to limit the occurrence of AEA-regulated activities based on its own radiological safety concerns – and Virginia has not disputed that it did – that action represents a clear encroachment into the preempted field.

Virginia's foray into this prohibited field would also thwart the Act's objectives. The AEA allows states to assume limited aspects of the authority of the Nuclear Regulatory Commission ("NRC"), but only if the NRC has approved the state's regulatory program, and Virginia has not obtained any authority to regulate uranium mining or tailings management. By refusing to respect the regulatory regime the NRC established regarding these activities, and by instead unilaterally attempting, based on its

own safety concerns, to prevent the occurrence of these very activities that Congress was attempting to support, Virginia has frustrated Congress's objectives.

For both of these reasons, I believe that the district court erred in dismissing this action, and I respectfully dissent from the majority's contrary disposition.

I.

A.<sup>1</sup>

The stakes in this case are significant. Uranium is the predominant fuel source for nuclear power plants, which, in 2015, produced approximately 20% of our country's electricity. *See U.S. Energy Information Administration / Frequently Asked Questions*, <https://www.eia.gov/tools/faqs/faq.cfm?id=427&t=3> (last visited, Jan. 20, 2017) (saved as ECF opinion attachment). In 2015, approximately 94% of the uranium used in those plants was imported. *See U.S. Energy Information Administration / Nuclear & Uranium / Uranium Marketing Annual Report*, <http://www.eia.gov/uranium/marketing> (last visited, Jan. 20, 2017) (saved as ECF opinion attachment). Uranium is also the fissile material used for nuclear warheads.

The Coles Hill uranium deposit is the largest natural deposit of uranium in the United States and one of the largest in the world. The deposit, discovered in the early 1980s, includes approximately 119 million pounds of uranium ore, worth between \$5 and \$6 billion. Coles Hill, LLC, and Bowen Minerals, LLC, own the land above the deposit.

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<sup>1</sup> On review of the grant of a motion by the defendants to dismiss for failure to state a claim, we view the allegations in the complaint in the light most favorable to the plaintiffs.

Although they retain a royalty interest, they lease the mineral estate to Virginia Uranium, which is owned by Virginia Energy Resources.

In light of the Coles Hill deposit's geological properties, the uranium there would likely need to be extracted by conventional mining.<sup>2</sup> Once mined, the uranium would need to be milled into usable form. Typically, this occurs at the mining site. A mill grinds the ore into sand, which in turn is run through an acidic or alkaline solution to separate the uranium from the waste, or "tailings." The uranium is then concentrated and dried into "yellowcake," the final product that is commercially sold and shipped off-site for enrichment. Because the tailings continue to have most of their naturally occurring radioactivity, they would need to be stored securely in order to prevent any radioactive materials from escaping into the environment.

B.

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<sup>2</sup> In situ leaching is another method of extracting uranium from the ground. That process "involves leaving the ore where it is in the ground, and recovering the minerals from it by dissolving them and pumping the pregnant solution to the surface where the minerals can be recovered. Consequently there is little surface disturbance and no tailings or waste rock generated." *World Nuclear Association / Information Library / Nuclear Fuel Cycle / Mining of Uranium / In Situ Leach Mining of Uranium*, <http://www.world-nuclear.org/information-library/nuclear-fuel-cycle/mining-of-uranium/in-situ-leach-mining-of-uranium.aspx> (last visited Jan. 20, 2017). Critically, however, for uranium to be obtained from the land by that method, "the orebody needs to be permeable to the liquids used, and located so that they do not contaminate groundwater away from the orebody." *Id.* And "[b]ecause of the geology in the Commonwealth of Virginia, it is very unlikely that [in situ recovery] can be used to extract uranium" from the Coles Hill deposit or anywhere else in Virginia. J.A. 209; *see* J.A. 230 (similar).

The federal government first authorized civilian application of atomic power with the Atomic Energy Act of 1946 (the “1946 Act”). *See Pacific Gas & Elec. Co. v. State Energy Res. Conservation & Dev. Comm’n (“Pacific Gas”)*, 461 U.S. 190, 206 (1983). Under the 1946 Act, the federal government possessed a monopoly on nuclear technology. *See English v. General Elec. Co.*, 496 U.S. 72, 80 (1990).

In 1954, the AEA replaced the 1946 Act and marked the beginning of private development of nuclear power. The AEA “stemmed from Congress’ belief that the national interest would be served if the Government encouraged the private sector to develop atomic energy for peaceful purposes under a program of federal regulation and licensing.” *Id.* at 81. Indeed, the Act itself states that its goal is “to encourage widespread participation in the development and utilization of atomic energy for peaceful purposes *to the maximum extent* consistent with the common defense and security and with the health and safety of the public.” 42 U.S.C. § 2013(d) (emphasis added). To this end, the Act was designed “to insure that nuclear technology [would] be safe enough for [such] widespread development and use.” *Pacific Gas*, 461 U.S. at 213.

Under the AEA, Congress gave the Atomic Energy Commission (“AEC”) – now the NRC<sup>3</sup> – “exclusive authority to license the transfer, delivery, receipt, acquisition,

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<sup>3</sup> In 1974, Congress enacted the Energy Reorganization Act, which abolished the AEC and transferred its licensing and regulatory responsibilities to the NRC. *See Duke Power Co. v. Carolina Env’tl. Study Grp., Inc.*, 438 U.S. 59, 63 n.1 (1978); 42 U.S.C. §§ 5801(c), 5814. This legislation “also expanded the number and range of safety responsibilities under the NRC’s charge.” *English v. General Elec. Co.*, 496 U.S. 72, 81 (1990).

possession, and use of all nuclear materials.” *English*, 496 U.S. at 81. The Act specifically provides that anyone wishing to “transfer or receive in interstate commerce, manufacture, produce, transfer, acquire, own, possess, import, or export” any radioactive “byproduct material” – a term now defined to include “the tailings or wastes produced by the extraction or concentration of uranium” – is required to obtain a license from the NRC.<sup>4</sup> 42 U.S.C. §§ 2111(a), 2014(e)(2); *see* 42 U.S.C. § 2111(b). Pursuant to these statutes, the NRC has promulgated detailed regulations designed to ensure the radiological safety of uranium milling and tailings management.<sup>5</sup> *See* 10 C.F.R. Pt. 40, App. A.

In 1959, Congress amended the Act to allow states to assume limited aspects of the NRC’s regulatory authority if certain conditions are satisfied. *See English*, 496 U.S. at 81. Specifically, the NRC may “enter into agreements with the Governor of any State” in order “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). However, the

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<sup>4</sup> The Act’s original language did not specifically include uranium tailings within the commission’s licensable jurisdiction. However, the Uranium Mill Tailings Radiation Control Act of 1978 (the “UMTRCA”) added uranium tailings to the definition of “byproduct material” in order to “clarif[y]” and “reinforce[]” the NRC’s authority over operating mills’ production and disposal of such tailings. H.R. Rep. No. 95-1480, at 13 (1978); *see* Pub. L. No. 95-604, 92 Stat. 3021.

<sup>5</sup> The Act did not seek to regulate conventional uranium mining on nonfederal lands, apparently because Congress did not perceive that the mining itself posed serious radiological risks and Congress recognized the necessity of encouraging independent prospecting. *See* S. Rep. No. 79-1211, at 18-19 (1946); *see also* Atomic Energy: Hearings Before the Committee on Military Affairs on H.R. 4280, 79th Cong. 125 (1945) (testimony that uranium is not dangerous “itself, without applying to it some industrial process”).

NRC may enter into such an agreement only after ensuring that the state's program is "compatible" with the otherwise applicable federal regulations and "is adequate to protect the public health and safety with respect to the materials covered by the . . . agreement." 42 U.S.C. § 2021(d)(2).

In 2009, Virginia entered into a limited agreement with the NRC, under which Virginia would assume the authority to regulate the radiological hazards of "source material" – which includes uranium and uranium ore – and most byproduct material. 74 Fed. Reg. 14821, 14822-23 (Apr. 1, 2009). However, the agreement explicitly excluded uranium tailings. *See id.*; 42 U.S.C. § 2014(e)(2). Thus, the NRC retained exclusive authority to regulate the radiological dangers pertaining to uranium milling and tailings management.

### C.

In 1982, soon after the discovery of the Coles Hill deposit, the Virginia legislature imposed an emergency moratorium on uranium mining and subsequently extended the emergency moratorium into an indefinite ban. *See* Va. Code § 45.1-283.<sup>6</sup> Although the ban nominally addresses uranium *mining*, in actuality, it was concerns of the radiological

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<sup>6</sup> Virginia requires anyone wishing to engage in mineral mining in the state to obtain a mining permit from the Department of Mines, Minerals and Energy. *See* Va. Code § 45.1-181. Additionally, to operate a mineral mine in Virginia, one must first obtain a Mine Safety permit. *See* Va. Code § 45.1-161.292:30. Virginia's initial, emergency moratorium prohibited any agency from accepting permit applications for uranium mining prior to July 1, 1983. *See* 1982 Va. Acts ch. 269. And, the extension continued that restriction "until a program for permitting uranium mining is established by statute." 1983 Va. Acts ch. 3, Va. Code § 45.1-283. No such program has yet been established.

safety of uranium *milling* and *tailings management* that motivated the legislature to act.<sup>7</sup> The legislature banned uranium mining only as a means to prevent milling and tailings management from occurring in Virginia.

The legislature considered lifting the ban between 2008 and 2013 but ultimately decided against doing so.

D.

Virginia Uranium, Inc., Coles Hill, LLC, Bowen Materials, LLC, and Virginia Energy Resources, Inc. (collectively, “Virginia Uranium”) filed this suit for declaratory and injunctive relief against several governmental defendants (collectively, “the Commonwealth”). Virginia Uranium alleges that the AEA preempts Virginia’s ban under two theories. First, it claims that, by enacting the AEA, Congress intended that the federal government would exclusively occupy the field of radiological safety concerns regarding the activities the AEA regulates. Virginia Uranium claims that the mining ban is grounded primarily in Virginia’s radiological safety concerns regarding two such activities: the milling of the uranium that would be mined in Virginia if mining were permitted, and the storage of the tailings that would result. In light of this purpose of protecting against the radiological dangers associated with these two AEA-regulated activities, Virginia Uranium maintains that Virginia’s ban encroaches upon the very field that Congress intended the federal government to occupy exclusively.

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<sup>7</sup> The primary concern was that uranium tailings could contaminate the drinking water supply.



Second, Virginia Uranium contends that the mining ban does not respect the balance Congress struck regarding the objectives of promoting uranium development and ensuring health, safety, and environmental protection. Virginia Uranium maintains that the Act contemplates that uranium development will not be barred on the basis of concerns regarding the radiological dangers of regulated activities, so long as the federal regulations applying to those activities are satisfied. Virginia Uranium alleges that Virginia's uranium mining ban effectively operates as a ban on storing uranium tailings even though Virginia does not have the federal government's permission to regulate that activity. Thus, Virginia Uranium claims that the ban is preempted as an obstacle to the full implementation of the Act's objectives.<sup>8</sup>

Virginia Uranium seeks a declaration that the AEA preempts Va. Code § 45.1-283. It also requests an injunction forbidding the Commonwealth from adhering to § 45.1-283 and requiring it to process permit applications for uranium mining.

The Commonwealth moved to dismiss the complaint for failure to state a claim. *See* Fed. R. Civ. P. 12(b)(6). The Commonwealth did not then – and does not now – dispute Virginia Uranium's allegation that § 45.1-283 is actually grounded in the legislature's radiological safety concerns regarding uranium milling and uranium tailings

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<sup>8</sup> Virginia Uranium also alleges that it is “physically impossible to develop uranium in Virginia and simultaneously comply with both federal law, which regulates but allows the storing of uranium tailings, and Virginia's law, which effectively bans storing uranium tailings.” J.A. 47.

management.<sup>9</sup> Nor has it ever disputed that uranium milling and tailings management are activities that the Act regulates. Nevertheless, it argued that because § 45.1-283 does not *directly prevent those activities* but only *directly* bans uranium *mining* – albeit as a means of preventing the AEA-regulated activities – the ban is not preempted.

Virginia Uranium opposed the Commonwealth’s motion to dismiss and filed a cross-motion for summary judgment, attaching hundreds of pages of materials that Virginia Uranium maintained demonstrated, as a matter of law, that Virginia’s ban on mining was a pretext for its true goal of preventing uranium milling and tailings management.

The district court granted the Commonwealth’s motion, ruling that the ban is not preempted even assuming that the Virginia legislature’s actual purpose was to protect against the radiological dangers associated with uranium milling and tailings management. *See Virginia Uranium, Inc. v. McAuliffe*, 147 F. Supp. 3d 462 (W.D. Va. 2015). The district court reasoned that because the AEA does not regulate conventional mining of uranium ore on nonfederal lands, Virginia was free to ban uranium ore mining *as a means of preventing* uranium milling and tailings management, in order to avoid the radiological dangers associated with those AEA-regulated activities. *See id.* at 471-77.

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<sup>9</sup> The Commonwealth acknowledges that it “conceded the truth of [Virginia Uranium’s] claims about legislative motive . . . for purposes of their Rule 12(b)(6) motion.” Appellees’ brief at 15 n.58. It argues, however, that its concession did not extend beyond the motion to dismiss and that had that motion “not been granted, the district judge would have had discretion to give [the Commonwealth] ‘an opportunity to properly . . . address the facts’ asserted by [Virginia Uranium].” *Id.* (quoting Fed. R. Civ. P. 56(e)(1)).

Thus, the court concluded that the ban did not encroach upon the field reserved exclusively for the federal government. *See id.*

For similar reasons, the court also concluded that the ban was not preempted under the doctrine of conflict preemption because it did not frustrate “the accomplishment and execution of the full purposes and objectives of Congress” regarding the “promotion of nuclear power.” *Id.* at 477 (internal quotation marks omitted). In this regard, the court reasoned primarily that the Act “evinced no purpose or objective that nonfederal uranium deposits should be conventionally mined.”<sup>10</sup> *Id.* And the court suggested that the federal government was free to condemn the property if it wished to have the uranium therein conventionally mined. *See id.* at 477 n.20 The court also determined that Virginia did not circumvent the requirements Congress put in place for states to assume regulation of uranium milling and tailings management because Virginia’s statute did not purport to regulate those activities. *See id.* at 472-73, 477 n.19.

Having decided to dismiss the action, the court denied as moot Virginia Uranium’s summary judgment motion. *See id.* at 478.

## II.

Virginia Uranium argues that the district court erred in dismissing its action. I agree.

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<sup>10</sup> The court further concluded that the ban did not “conflict[] with Congress’ judgment that [on-site milling and mill-tailings management] may proceed.” *Virginia Uranium, Inc. v. McAuliffe*, 147 F. Supp. 3d 462, 477 (W.D. Va. 2015). The court also rejected Virginia Uranium’s claim that it was impossible for Virginia Uranium to comply with both the AEA and the Virginia ban. *See id.* at 477 n.18.

## A.

We review de novo the grant of a motion to dismiss for failure to state a claim. *See U.S. Airline Pilots Ass'n v. Awappa, LLC*, 615 F.3d 312, 317 (4th Cir. 2010). In so doing, “we must accept as true all of the factual allegations contained in the complaint.” *Anderson v. Sara Lee Corp.*, 508 F.3d 181, 188 (4th Cir. 2007) (internal quotation marks omitted). To survive dismissal, the complaint must contain “enough facts to state a claim to relief that is plausible on its face.” *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 570 (2007).

Under the Supremacy Clause, “the Laws of the United States . . . shall be the supreme Law of the Land . . . any Thing in the Constitution or Laws of any state to the Contrary notwithstanding.” U.S. Const. art. VI., cl. 2. Accordingly, “Congress may . . . pre-empt, *i.e.*, invalidate, a state law through federal legislation.” *Oneok, Inc. v. Learjet, Inc.*, 135 S. Ct. 1591, 1595 (2015). It may do so by express statutory language, or it may do so implicitly, “either through ‘field’ pre-emption or ‘conflict’ pre-emption.” *Id.* Congress engages in field preemption when it has intended “to foreclose any state regulation in the *area*,” regardless of any inconsistency between the state regulation and federal standards. *Arizona v. United States*, 132 S. Ct. 2492, 2502 (2012). Conflict pre-emption occurs when “compliance with both federal and state regulations is a physical impossibility,” *Florida Lime & Avocado Growers, Inc. v. Paul*, 373 U.S. 132, 142-43 (1963), or when state law “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).

## B.

The Supreme Court in *Pacific Gas* established the legal analysis that governs this appeal, and I believe it is important to review the Court's reasoning in some detail. In *Pacific Gas*, the Court considered whether the AEA preempted a California statute imposing a moratorium on nuclear plant construction in California until a state commission found that adequate facilities and means of disposal of spent nuclear fuel were available. *See Pacific Gas*, 461 U.S. at 198. The plaintiffs ("the Utilities") maintained that the moratorium was enacted based on the California legislature's safety concerns regarding the radiological dangers of operating nuclear reactors in the absence of any strategy for the long-term storage of spent nuclear fuel. *See id.* at 196-97, 204. They advanced three arguments that the moratorium was preempted: First, because the moratorium was grounded in nuclear safety concerns it fell within an exclusively federal field; second, the moratorium and the judgments underlying it conflicted with the decisions that Congress and the NRC had made regarding nuclear waste disposal; and third, the moratorium "frustrate[d] the federal goal of developing nuclear technology as a source of energy." *Id.* at 204.

The Court began its preemption analysis by observing that the Act did not "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. The Court therefore turned to the question of field preemption and, specifically, the scope of the AEA's preempted field as it would relate to a state ban on construction of nuclear powerplants. The Court noted that the Utilities had

maintained that Congress had intended to “preserve the federal government as the sole regulator of all matters nuclear.” *Id.* The Court did not view the exclusive federal field as being quite that broad, however. Rather, the Court observed that Congress had intended roles for both the federal government and the states:

Congress . . . intended that the federal government should regulate the radiological safety aspects involved in the construction and operation of a nuclear plant, but that the States [would] retain their traditional responsibility in the field of regulating electrical utilities for determining questions of need, reliability, cost and other related state concerns.

*Id.*

The Court then turned its focus to the challenged California statute. The Court noted initially that “the statute does not seek to regulate the construction or operation of a nuclear powerplant,” which would have been clearly impermissible given that the Act specifically regulates the manner in which nuclear plants must be constructed and operated. *Id.* at 212; *see id.* (noting “the NRC’s exclusive authority over plant construction and operation”). On the other hand, the Court rejected the argument of the defendants (collectively, “California”) that “although safety regulation of nuclear plants by states is forbidden, a state may completely prohibit new construction until its safety concerns are satisfied by the federal government.” *Id.* The Court reasoned that it is not the case that “[s]tate safety regulation is . . . 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.”<sup>11</sup> *Id.* (emphasis added); *see also* 42 U.S.C. § 2021(k) (“Nothing 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.”).

In light of the Court’s conclusions regarding the scope of the preempted field, the Court reasoned that “[a] state moratorium on nuclear construction grounded in safety concerns [would] fall[] squarely within” it. *Pacific Gas*, 461 U.S. at 213. The Court added that a statute based on such concerns would also be preempted for the two other reasons the Utilities advanced. First, “a state judgment that nuclear power is not safe enough to be further developed would conflict directly with the countervailing judgment of the NRC, that nuclear construction may proceed notwithstanding extant uncertainties as to waste disposal.” *Id.* (citation omitted). And second, “[a] state prohibition on

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<sup>11</sup> The Court reiterated this analysis in *English*. The lawsuit at issue there included a state-law cause of action for intentional infliction of emotional distress brought by an employee of a nuclear-fuels production facility against her employer. *See English*, 496 U.S. at 77-78. The employee’s claim arose out of actions her employer allegedly took against her in retaliation for her nuclear-safety complaints. *See id.* at 76. The Court considered whether the AEA preempted the employee’s state-law cause of action under the doctrine of field preemption. *See id.* at 80-86. The *English* Court explained that the *Pacific Gas* Court had defined “part of the pre-empted field . . . by reference to the purpose of the state law.” *Id.* at 84. The Court concluded that because “the state tort law at issue . . . [was] not motivated by safety concerns,” the portion of the preempted field defined by statutory purpose was “not relevant.” *Id.* Nevertheless, the *English* Court also concluded that a *separate* part of the preempted field consisted of laws that “have some direct and substantial effect on the decisions made by those who build or operate nuclear facilities concerning radiological safety levels.” *Id.* at 85. In the end, the Court determined that the effect of the state claim on the nuclear safety “decisions made by those who build or operate nuclear facilities” was “neither direct nor substantial enough to place petitioner’s claim” in that part of the preempted field either. *Id.*

nuclear construction for safety reasons” would be preempted because it would “be in the teeth of the [Act’s] objective to insure that nuclear technology be safe enough for widespread development and use.” *Id.*

Even though the text of the moratorium itself did not demonstrate that the statute was preempted, given the Court’s conclusion that a prohibition on the construction of nuclear powerplants would be preempted if grounded in nuclear safety concerns, the Court decided that “it [wa]s necessary to determine whether there [was] a non-safety rationale for [the statute].” *Id.*

Turning to that question, the Court noted that “California has maintained . . . that [its moratorium] was aimed at economic problems, not radiation hazards.” *Id.* And the Court discussed legislative history supporting California’s claim. *See id.* at 213-14. The Supreme Court observed that the Ninth Circuit, relying on this legislative history, had determined that the California legislature was indeed motivated by economic considerations rather than safety concerns. *See id.* at 214. And, the Court noted that its “general practice is to place considerable confidence in the interpretations of state law reached by the federal courts of appeals.” *Id.* (citing *Mills v. Rogers*, 457 U.S. 291, 306 (1982), and *Bishop v. Wood*, 426 U.S. 341, 346 (1976)).

The Court then proceeded to discuss four considerations that the Utilities and *amici* had identified as indicia that the Ninth Circuit’s determination was incorrect and that the California legislature had actually been motivated by safety concerns. *See id.* at 214-16. Although the Court downplayed the persuasiveness of each of the four, it nonetheless acknowledged that they were “subject to varying interpretation.” *Id.* at 216.



Nevertheless, in addition to the inconclusiveness of these indicia, the Court identified two other reasons why it would accept the Ninth Circuit's determination regarding the California legislature's motivation rather than "becom[ing] embroiled" itself in the inquiry. *Id.* The Court noted first that "inquiry into legislative motive is often an unsatisfactory venture" considering that individual legislators do not necessarily all have the same motivation for voting to enact particular legislation. *Id.* And the Court noted as well that second-guessing the Ninth Circuit's inquiry into whether California was motivated by safety concerns "would be particularly pointless" considering that Congress specifically allowed the states to decide against constructing new nuclear powerplants for economic reasons. *See id.* The Court observed that states inclined not to allow new nuclear powerplants could easily disallow plants on that basis and that Congress would be free to revoke this authority if it decided that states were abusing it by offering perpetual economic considerations as the reason for restrictions that are actually grounded in safety concerns. *See id.* The Court therefore accepted the Ninth Circuit's determination – and California's representation – that the state legislature had been motivated primarily by economic considerations rather than safety concerns. *See id.* Consequently, the Court held that "the statute lies outside the occupied field of nuclear safety regulation." *Id.*

The Court then turned to the Utilities' other two preemption arguments. The Court concluded that there was no conflict between the California legislature's judgment, for economic reasons, that nuclear plants should not be built because "[t]he NRC's

imprimatur . . . indicates only that it is safe to proceed with such plants, not that it is economically wise to do so.” *Id.* at 218.

Regarding the argument that the moratorium frustrated the “Act’s purpose to develop the commercial use of nuclear power,” *id.* at 220, the Court acknowledged that “the promotion of nuclear power” was indeed “a primary purpose” of the Act. *Id.* at 221. However, the Court also recognized that the Act was not designed to “promot[e] . . . nuclear power . . . ‘at all costs.’” *Id.* at 222. Rather, “the legal reality remains that Congress . . . left sufficient authority in the states to allow the development of nuclear power to be slowed or even stopped *for economic reasons.*” *Id.* at 223 (emphasis added). Because the Court had accepted the Ninth Circuit’s determination that California’s moratorium was in fact enacted for economic reasons rather than reasons of safety, the Court concluded that the moratorium did not frustrate the Act’s purposes and thus was not preempted for that reason either. *See id.*

### C.

The analysis in *Pacific Gas* demonstrates, both for reasons of field preemption and conflict preemption, that the district court erred in dismissing Virginia Uranium’s action.

#### 1. Field Preemption

I begin with field preemption. Just as was true of California’s moratorium in *Pacific Gas*, *see* 461 U.S. at 212, the *substance* of Virginia’s law – a ban on conventional uranium mining – does not conflict with the Act, which does not regulate conventional mining on non-federal lands. Nevertheless, as *Pacific Gas* held, a statute’s *purpose* can itself bring the statute within the prohibited field. *See Pacific Gas*, 461 U.S. at 213; *see*

also *English*, 496 U.S. at 84 (noting that *Pacific Gas* defined “part of the preempted field . . . by reference to the purpose of the state law”); *North Carolina ex rel. Cooper v. TVA*, 615 F.3d 291, 303 (4th Cir. 2010) (“[T]he [*Pacific Gas*] Court explained that when Congress chose to give the [NRC] control over issues relating to nuclear safety, it completely occupied the field of nuclear safety regulations.”); cf. *Oneok, Inc.*, 135 S. Ct. at 1599-1600 (holding that whether the Natural Gas Act (NGA) preempts a particular state law turns on “the *target* at which the state law *aims*”; rejecting the dissent’s contention that that the Court should instead “focus . . . on ‘*what* the State seeks to regulate . . ., not *why* the State seeks to regulate it’” (emphasis in original)). Thus, as in *Pacific Gas*, “it is necessary to determine whether there is a non-safety rationale” for the ban.<sup>12</sup> *Pacific Gas*, 461 U.S. at 213.

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<sup>12</sup> Citing *English*, the Commonwealth asserted during oral argument that regardless of the *purpose* of a state statute, it falls in the preempted field only if its *effect* is sufficiently direct and substantial. But this argument plainly conflates the two *separate* parts of the preempted field that *English* described. See *English*, 496 U.S. at 84 (“[E]ven as the [*Pacific Gas*] Court suggested that *part* of the pre-empted field is defined by reference to the purpose of the state law in question, it made clear that *another part* of the field is defined by the state law’s actual effect on nuclear safety.” (emphasis added)). Under *Pacific Gas*, any state statute grounded in protecting citizens from the radiological dangers of activities regulated by the Act is preempted, regardless of the statute’s effect.

The Commonwealth also relied at oral argument on *Silkwood v. Kerr-McGee Corp.*, 464 U.S. 238 (1984). In *Silkwood*, the Court considered, as is relevant here, “whether a state-authorized award of punitive damages arising out of the escape of plutonium from a federally licensed nuclear facility [was] preempted . . . because it” fell within the “forbidden field” of laws “regulating the safety aspects of nuclear energy.” *Id.* at 240-41. The Court concluded that Congress had not intended that such state remedies would be preempted and that Congress had indeed “assumed that persons injured by nuclear accidents were free to utilize existing state tort law remedies.” *Id.* at 252. (Continued)

Unlike in *Pacific Gas*, wherein California claimed that the moratorium was actually grounded on a non-safety concern, *the Commonwealth makes no such claim here*. Rather, at this stage of the litigation, the Commonwealth *concedes* the truth of Virginia Uranium’s allegation that the moratorium is grounded on the Virginia legislature’s concerns regarding the radiological safety of uranium ore milling and tailings storage. The Commonwealth also does not dispute that these two activities are regulated under the Act.<sup>13</sup> See 42 U.S.C. §§ 2014(e)(2), (z), 2092, 2111(a), 2114(a). Thus, under the reasoning of *Pacific Gas*, because the Virginia statute was grounded in nuclear safety concerns, it “falls squarely in the prohibited field,” and is preempted for that reason.<sup>14</sup> *Pacific Gas*, 461 U.S. at 213.

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Because *Silkwood* did not concern a law claimed to have been enacted to protect against radiological dangers, it is no help to the Commonwealth here.

<sup>13</sup> The Commonwealth argues that legislation grounded in radiological safety concerns *regarding an activity that the Act does not regulate*, such as the taking of X-rays, would not be preempted. There is no reason to address that issue in this case, however, given that the activities that the Commonwealth concedes were the focus of the legislature’s concern – uranium milling and tailings management – are regulated by the Act.

<sup>14</sup> The district court concluded, and the Commonwealth argues, that *Pacific Gas* is distinguishable from the present case because Virginia’s ban concerns an activity the Act does not regulate – uranium mining – while the moratorium challenged in *Pacific Gas* “regulated an activity that [was] clearly committed to the NRC’s regulatory authority.” *Virginia Uranium, Inc.*, 147 F. Supp. 3d. at 476. But the district court’s conclusion that the California moratorium regulated an activity that the Act also regulated is directly at odds with the *Pacific Gas* Court’s own view: *Pacific Gas* specifically explained that the California moratorium did “not seek to regulate the construction or operation of a nuclear powerplant.” 461 U.S. at 212 (emphasis added).

(Continued)

Until 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*.<sup>15</sup>

In *Skull Valley Band of Goshute Indians v. Nielson*, 376 F.3d 1223 (10th Cir. 2004), for example, the Tenth Circuit considered whether the AEA preempted several Utah statutes. Most relevant here were statutes that took control of “the only road

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The district court also described the relevant analysis in *Pacific Gas* as non-binding dicta, *see Virginia Uranium*, 147 F. Supp. 3d at 476, a view that even the Commonwealth appropriately does not appear to embrace. “Dictum is statement in a judicial opinion that could have been deleted without seriously impairing the analytical foundations of the holding — that, being peripheral, may not have received the full and careful consideration of the court that uttered it.” *Pittston Co. v. United States*, 199 F.3d 694, 703 (4th Cir. 1999) (internal quotation marks omitted). The analysis leading up to, and including, the Court’s conclusion that the California moratorium would be preempted if it were determined to be grounded on safety concerns is a central part of the Supreme Court’s opinion. And even if it were dicta, which it is not, we would still be bound to follow it considering the obvious importance of the analysis to the opinion. *See United States v. Fareed*, 296 F.3d 243, 247 (4th Cir. 2002) (explaining that lower federal appellate courts are “bound by Supreme Court dicta almost as firmly as by the Court’s outright holdings”).

<sup>15</sup> Of course, the Ninth Circuit in *Pacific Gas* itself also recognized that the California moratorium before the court would be preempted if it were enacted for nuclear safety purposes. *See Pacific Legal Found. v. State Energy Res. Conservation & Dev. Comm’n*, 659 F.2d 903, 922-23 (9th Cir. 1981), *aff’d sub nom. Pacific Gas & Elec. Co. v. State Energy Res. Conservation & Dev. Comm’n*, 461 U.S. 190 (1983). It was for that reason that the Court of Appeals undertook to “inquire whether [the moratorium was] aimed at radiation hazards.” *Id.* at 923. After a detailed analysis of the applicable statute and the history behind its enactment, the court concluded that the moratorium was “directed towards purposes other than protection against radiation hazards.” *Id.* at 925. The Supreme Court in *Pacific Gas*, in turn, accepted the Ninth Circuit’s determination. *See Pacific Gas*, 461 U.S. at 214-16.

permitting access to the [proposed spent nuclear fuel storage] facility . . . by designating it a state highway” and then “requiring the consent of the governor and the state legislature before” any “company engaged in the transportation or storage of” spent nuclear fuel was allowed to drive on it (the “Road Provisions”). *Id.* at 1251-52. As was true of the statute in *Pacific Gas*, and as is true of the Virginia statute challenged in the present case, the Road Provisions did not *directly* prohibit any activities regulated by the Act. In fact, the conduct the provisions *directly* addressed concerned transportation, a category traditionally subject to local control. Nevertheless, the Tenth Circuit recognized that regardless of the nature of the activity the provisions directly addressed, the applicable preemption analysis “requires consideration of the *purpose* of the allegedly preempted statute.” *Id.* at 1252 (emphasis added).

As for what the actual purpose was, the court noted comments by the sponsoring legislator and the governor indicating that the provisions’ purpose was to protect Utah citizens against the hazards of storage and transportation of nuclear waste by preventing those activities from occurring in Utah. *See id.* Observing that “Utah officials [did] not attempt to contest any of this evidence” and that it was unlikely that they could, the court concluded that “[t]he record . . . establishes that the Road Provisions were enacted for reasons of radiological safety and are therefore preempted.” *Id.*

The court also conducted a similar analysis of provisions that “prohibit[ed] counties from providing ‘municipal-type services,’ including fire protection, garbage disposal, water, electricity, and law enforcement, to [spent nuclear fuel] transportation and storage facilities within the county.” *Id.* at 1245. The court rejected the argument

that provisions affecting these types of services were not preempted because such services “have been traditionally regulated by local governments.” *Id.* at 1247. Rather, the court concluded that despite the fact that the subjects that the law *directly* addressed were traditionally left to local governments to regulate, “a state cannot use its authority to regulate law enforcement and other similar matters *as a means* of regulating radiological hazards.”<sup>16</sup> *Id.* at 1248 (emphasis added).

The Second Circuit in *Entergy Nuclear Vermont Yankee, LLC v. Shumlin*, 733 F.3d 393 (2d Cir. 2013), engaged in a similar analysis, holding that the AEA preempted a Vermont law requiring that nuclear plants in Vermont can be operated only with the legislature’s explicit approval. *See id.* at 414, 422. As with the statutes in *Pacific Gas*

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<sup>16</sup> At oral argument, the Commonwealth argued that *Skull Valley* was distinguishable from the present case because the Road Provisions were designed to prevent an activity regulated by the Act, nuclear waste storage. And the district court distinguished *Skull Valley* on the same basis. *See Virginia Uranium, Inc.*, 147 F. Supp. 3d at 473 n.13 (“The statute [in *Skull Valley*] plainly targeted nuclear-waste facilities and only ‘regulate[d] law enforcement and other similar matters as a means of regulating radiological hazards.’”). This is not a valid distinction, however, considering that the Virginia statute was also designed to prevent – or at least significantly reduce the occurrence of – activities regulated by the Act, uranium milling and tailings management.

It is worth noting as well that, as the Supreme Court considered a petition for writ of certiorari in *Skull Valley*, the Court invited the Solicitor General to express the United States’ views. The Solicitor General wholeheartedly endorsed the Tenth Circuit’s analysis and took the view that certiorari should be denied. *See Nielson v. Private Fuel Storage, L.L.C.*, 2005 WL 2985709, at \*10, 13 (U.S. Nov. 4, 2005) (“Here, the lower courts found that the entirety of the series of interrelated laws at issue here were targeted specifically to regulate the safety aspects of the proposed waste facility and were designed to halt the construction and operation of the proposed facility based on radiation hazard concerns. In light of those factual determinations, the decision to find the entire statutory scheme preempted on its face is correct. . . . [W]hen a State enacts legislation based upon ‘nuclear safety concerns,’ the laws are preempted without the need to demonstrate their effect.” (quoting *Pacific Gas*, 461 U.S. at 212-13)).

and the present case, the substance of the restriction the Vermont law imposed did not conflict with the AEA. *See Pacific Gas*, 461 U.S. at 212. Nevertheless, the court recognized that “a law enacted for th[e] purpose” of protecting against radiological dangers would “fall[] squarely within the prohibited field.” *Entergy*, 733 F.3d at 415. Consequently, the court reasoned that, as in *Pacific Gas*, it was “‘necessary to determine whether there is a non-safety rationale’ for” the statute. *Id.* (quoting *Pacific Gas*, 461 U.S. at 213).

The text of the Vermont law explicitly declared that the statute was *not* grounded in nuclear safety concerns. *See id.* at 415-16. Nevertheless, the court noted that its “inquiry [into the legislature’s motivation] does not end at the text of the statute.” *Id.* at 416. The court observed that, were the text determinative, “legislatures could nullify nearly all unwanted federal legislation by simply publishing a legislative committee report articulating some state interest or policy – other than the frustration of the federal objective – that would be tangentially furthered by the proposed state law.” *Id.* (internal quotation marks omitted); *see also id.* (“We . . . decline Vermont’s invitation to apply an analytic framework akin to ‘rational basis review,’ which would preclude us from identifying the true purpose of a statute as required by *Pacific Gas* and would allow states to implement a ‘moratorium on nuclear construction grounded in safety concerns [that] falls squarely within the prohibited field.’” (quoting *Pacific Gas*, 461 U.S. at 213)). The court therefore proceeded to review various *extra-textual* indicia concerning the legislature’s motivation for enacting the statute. *See id.* at 417-21. In the end, the Court of Appeals agreed with the district court that radiological safety concerns were the



“primary purpose” for the statute’s enactment, even if individual legislators may have acted for other reasons as well. *Id.* at 420; *see id.* at 420-22. The court thus concluded that the statute was preempted. *See id.* at 422. *See also Vermont Yankee Nuclear Power Corp. v. Entergy Nuclear Vt. Yankee, LLC*, 683 F.3d 1330, 1347 (Fed. Cir. 2012) (“[A] state law related to nuclear power is preempted if it . . . is motivated by safety concerns.”); *United States v. Manning*, 527 F.3d 828, 836 (9th Cir. 2008) (“The [Act] preempts [state law] if . . . the purpose of the [state law] is to regulate against radiation hazards.”); *United States v. Kentucky*, 252 F.3d 816, 823 (6th Cir. 2001) (“[T]he AEA preempts any state attempt to regulate materials covered by the Act for safety purposes.”).

I would apply the very same principles that animated the decisions in all of these cases and hold that Virginia Uranium has successfully alleged a claim under the doctrine of field preemption.

## 2. Conflict Preemption

In addition to being preempted for falling within the prohibited field, the Virginia statute is also preempted under the doctrine of conflict preemption because it “stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress.” *Hines*, 312 U.S. at 67. As the Supreme Court explained in *Pacific Gas*, “[t]here is little doubt that a primary purpose of the . . . Act was, and continues to be, the promotion of nuclear power.” 461 U.S. at 221; *see also* 42 U.S.C. § 5801. More specifically, an objective of the Act was to ensure that the development of nuclear energy would be sufficiently safe that the power of the private sector could be unleashed to

develop nuclear energy “to the maximum extent consistent with the common defense and security and with the health and safety of the public.” 42 U.S.C. § 2013(d); *see English*, 496 U.S. at 80-81; *Pacific Gas*, 461 U.S. at 213. It is hard to imagine how Virginia’s mining ban, grounded on safety concerns regarding the radiological dangers the federal government is charged with regulating, would not be found to frustrate those objectives. Virginia, not trusting that the federal government has sufficiently protected against the radiological dangers of uranium milling and tailings management, has unilaterally sought to *prevent the involvement of the very private-sector forces that the Act was designed to unleash*. Such an attempt would “be in the teeth of the . . . Act’s objective to insure that [the development of nuclear source material is] safe enough for widespread development and use – and [would be] preempted for that reason” as well.<sup>17</sup> *Pacific Gas*, 461 U.S. 213; *see Northern States Power Co. v. Minnesota*, 447 F.2d 1143, 1153-54 (8th Cir. 1971) (“Congress vested the AEC with the authority to resolve the proper balance between desired industrial progress and adequate health and safety standards. . . . Were the states allowed to impose stricter standards . . ., they might conceivably be so overprotective in the area of health and safety as to unnecessarily stultify the industrial

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<sup>17</sup> The district court concluded that there was no conflict between the Virginia legislature’s judgment and that of Congress and the NRC because the ban reached only conventional mining and Congress and the NRC expressed no preference regarding whether uranium be recovered by conventional mining or other means. *See Virginia Uranium, Inc.*, 147 F. Supp. 3d at 477. But the fact that Congress did not express a *preference* for conventional mining over other means ignores the fact that, in many cases, conventional mining is the only feasible alternative and thus a ban on conventional mining is a *de facto* ban on uranium development, including here, where the ban affects the largest uranium deposit in the country.

development and use of atomic energy for the production of electric power.”), *aff’d*, 405 U.S. 1035 (1972).

Importantly, a state law is preempted for frustrating a federal statute’s objectives “if it interferes with the methods by which the federal statute was designed to reach [its] goal.” *International Paper Co. v. Ouellette*, 479 U.S. 481, 494 (1987); *see Columbia Venture, LLC v. Dewberry & Davis, LLC*, 604 F.3d 824, 830 (4th Cir. 2010)). Although the district court suggested that the NRC could counter Virginia’s efforts by condemning the property, *see Virginia Uranium, Inc.*, 147 F. Supp. 3d at 477 n.20, the availability of this option does not change the fact that Virginia has interfered with Congress’s chosen method of uranium development, under which private parties such as Virginia Uranium would be free to engage in the regulated activities themselves without having to involve the federal government.

Virginia’s interference with Congress’s intended methods becomes even more apparent when one considers the clear route Congress set out for states that desire to assume the federal government’s regulatory authority. Congress designed section 2021 of the Act to further “cooperation between the States and the Commission with respect to control of radiation hazards” and “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). For those reasons, the Act authorizes states “to enter into agreements” with the NRC “to regulate the materials covered by the agreement” for “the duration of such an agreement.” 42 U.S.C. § 2021(b). Critically, though, a state seeking to enter such an agreement must first persuade the federal

regulators that the state's proposed regulations are "compatible with the Commission's program for the regulation of [the materials covered by the agreement]," and are "adequate to protect the public health and safety with respect to [those] materials." 42 U.S.C. § 2021(d). It is undisputed here that Virginia never obtained the authority to regulate uranium tailings. By attempting instead to eschew the system Congress established, and by *unilaterally* regulating against the dangers of uranium tailings under the pretext of regulating uranium mining, Virginia circumvented the Act's requirements and frustrated Congress's objectives.

Indeed, the Supreme Court found preemption on analogous facts in *Gade v. National Solid Wastes Management Association*, 505 U.S. 88 (1992). In that case, Illinois attempted to enforce training standards for certain hazardous waste workers that were stricter than the requirements of the federal Occupational Safety and Health Act of 1970 ("OSHA"). *See id.* at 93-94. OSHA allowed states to regulate an occupational safety and health issue themselves only "pursuant to [a federally] approved state plan that displaces the federal standards." *Id.* at 99 (plurality opinion). By giving states the option of displacing federal regulation entirely but conditioning states' rights to do so on federal approval, Congress was able "to promote occupational safety and health while at the same time avoiding duplicative, and possibly counterproductive, regulation." *Id.* at 102 (plurality opinion). The Court held that Illinois' attempt to supplement the federal regulations with its own standards without obtaining federal approval, *see id.* at 93-95, frustrated OSHA's objectives because it "interfere[d] with the methods by which the federal statute was designed to" achieve its goals. *Id.* at 103 (plurality opinion); *see id.* at

104 n.2 (plurality opinion); *id.* at 109-14 (Kennedy, J., concurring in part and concurring in the judgment) (agreeing with the plurality’s determination of the scope of the preemptive field but disagreeing with the plurality on the question of whether the preemption was implied or express). *See also International Paper Co.*, 479 U.S. at 495 (holding that Clean Water Act preempted Vermont nuisance suits to the extent that the suits sought to impose liability on a New York point source because such suits would allow “Vermont and other States [to] do indirectly what they could not do directly – regulate the conduct of out-of-state sources”); *cf. Arizona*, 132 S. Ct. at 2506-07 (holding that Arizona statute that “authoriz[ed] state officers to decide whether an alien should be detained for being removable . . . violate[d] the principle that the removal process is entrusted to the discretion of the Federal Government” and thus “create[d] an obstacle to the full purposes and objectives of Congress”).

I would apply the principles espoused in *Pacific Gas, Gade*, and these other cases and hold that Virginia Uranium has successfully alleged a claim under the doctrine of conflict preemption as well.

### III.

In sum, established Supreme Court law makes clear that the AEA preempts state statutes enacted for the purpose of protecting against the radiological dangers of activities the AEA regulates. Because 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.

Moreover, the statute is also preempted because it frustrates the AEA's objectives. The Act is designed to allow the federal government to establish rules to ensure that uranium can be developed safely so that the power of the private sector may be utilized to *maximize* our country's ability to develop nuclear power. The Act allows states to assume regulatory authority, but only to the extent that the NRC has agreed to that assumption based on its approval of the state's regulatory program. By refusing to accept the federal government's exclusive role in protecting against the radiological dangers of uranium milling and tailings management, and by instead unilaterally seeking to restrict the occurrence of these activities based on its own safety concerns, Virginia has circumvented the AEA's requirements and frustrated its objectives and, in so doing, prevented development of the largest uranium deposit in the United States.

I would reverse the district court's dismissal of Virginia Uranium's action, and I respectfully dissent from the majority's contrary disposition.