

United States Court of Appeals
FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued March 26, 2015

Decided June 2, 2015

No. 14-1046

CARBON SEQUESTRATION COUNCIL AND SOUTHERN COMPANY
SERVICES, INC.,
PETITIONERS

v.

ENVIRONMENTAL PROTECTION AGENCY AND GINA
MCCARTHY, ADMINISTRATOR,
RESPONDENTS

Consolidated with 14-1048

On Petitions for Review of Final Agency Action
of the United States Environmental Protection Agency

Thomas Sayre Llewellyn argued the cause for petitioners. With him on the briefs were *Stacy R. Linden* and *Robert F. Van Voorhees*. *Alec W. Farr* entered an appearance.

Michele L. Walter, Attorney, U.S. Department of Justice, argued the cause for respondents. With her on the brief was *John C. Cruden*, Assistant Attorney General.

Before: GARLAND, *Chief Judge*, BROWN, *Circuit Judge*,
and EDWARDS, *Senior Circuit Judge*.

Opinion for the Court filed by *Senior Circuit Judge* EDWARDS.

EDWARDS, *Senior Circuit Judge*: Under the Safe Drinking Water Act, the Environmental Protection Agency (“EPA” or “Agency”) is authorized to regulate the injection of fluids into underground wells to ensure that injection does not endanger drinking water sources. Under the Resource Conservation and Recovery Act (“RCRA”), EPA is authorized to regulate “solid waste,” which is defined, in part, as “discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations.” 42 U.S.C. § 6903(27). When fluid “solid waste” is injected into underground wells, that waste may be subject to regulation under both the Safe Drinking Water Act and RCRA.

In 2010, acting pursuant to its authority under the Safe Drinking Water Act, EPA promulgated a rule creating the new “Class VI” well, and prohibiting the injection of hazardous RCRA “solid waste” into such wells. *See* Federal Requirements Under the Underground Injection Control (UIC) Program for Carbon Dioxide (CO₂) Geologic Sequestration (GS) Wells, 75 Fed. Reg. 77,230 (Dec. 10, 2010). Class VI wells are designated to receive carbon dioxide streams generated as part of a climate change mitigation program known as “carbon capture and storage.” This program involves the capture of carbon dioxide from industrial sources, the compression of that carbon dioxide into a “supercritical fluid” that is neither a liquid nor a gas but has properties of both, and the injection of that supercritical carbon dioxide into an underground well to ensure that it does not reenter the atmosphere. Because the final stage of carbon capture and storage – geologic sequestration of the

supercritical carbon dioxide – involves the underground injection of fluid, it is subject to Safe Drinking Water Act regulation.

A question arose during the course of the Class VI rulemaking whether carbon dioxide streams injected into Class VI wells are also “solid waste” subject to regulation under RCRA. EPA initiated a separate rulemaking in part to address that question. Several commenters argued that the carbon dioxide streams do not fit within the statutory definition of solid waste. And a number of commenters were concerned that if EPA determined that supercritical fluids are solid waste, then generators and injectors of these streams would be obliged to comply with costly RCRA regulations.

On Jan. 3, 2014, EPA issued a final rule in which it determined that supercritical carbon dioxide injected into Class VI underground wells for purposes of geologic sequestration is “solid waste” within the meaning of RCRA. *See Hazardous Waste Management System: Conditional Exclusion for Carbon Dioxide (CO₂) Streams in Geologic Sequestration Activities*, 79 Fed. Reg. 350 (Jan. 3, 2014). EPA interpreted the phrase “including solid, liquid, semisolid, or contained gaseous material” as illustrative, rather than exhaustive, and stated that supercritical fluids fall within the statutory definition because they are of the same kind as those expressly included in the definition. 79 Fed. Reg. at 355. EPA also determined that the geologically sequestered streams constitute “discarded material” within the meaning of the statute because they are injected underground with the express intention of isolating them from reentry into the atmosphere, even though they could, theoretically, be extracted and reused in the future. *Id.* Having so concluded, EPA determined that supercritical carbon dioxide streams injected into Class VI

wells for the purpose of geologic sequestration constitute “solid waste” subject to RCRA.

The Carbon Sequestration Council, Southern Company Services, Inc. (which is a member of the Carbon Sequestration Council), and the American Petroleum Institute (together, “Petitioners”) now seek review of EPA’s solid waste determination, arguing that the supercritical carbon dioxide streams at issue in this rule are not RCRA solid waste. The Carbon Sequestration Council asserts representational standing on behalf of Southern; and the American Petroleum Institute asserts representational standing on behalf of Occidental Oil and Gas (“Occidental”). Because we find that Petitioners have no standing to pursue this challenge, we dismiss for want of jurisdiction. As the parties invoking federal jurisdiction, Petitioners “bear[] the burden of establishing” Article III standing. *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 561 (1992). They “must support each element of [their] claim to standing by affidavit or other evidence. [Their] burden of proof is to show a substantial probability that [they have] been injured, that the defendant caused [their] injury, and that the court could redress that injury.” *Sierra Club v. EPA*, 292 F.3d 895, 899 (D.C. Cir. 2002) (citation and internal quotation marks omitted). Petitioners have failed to meet this burden of proof.

Southern Company Services, Inc. (“Southern”) has failed to allege that it uses or intends to use any Class VI wells. Rather, it captures and compresses carbon dioxide either for use in enhanced oil recovery or in Class V experimental wells. The disputed rule addresses only streams injected into Class VI wells for the purpose of geologic sequestration, which are not mentioned in Southern’s affidavit supporting standing. American Petroleum Institute (“Institute”), in turn, relies on one of its members, Occidental, in an effort to

demonstrate representational standing. Occidental, however, acknowledges that it is not directly regulated by the disputed rule. Rather, Occidental claims that EPA's 2014 rule presages regulation of its enhanced oil recovery activities, and that this will cause it to change its business practices in anticipation of likely future regulation. This is not enough in this case to demonstrate injury sufficient to meet the standing requirements of Article III. There is nothing in EPA's disputed rule to suggest that EPA intends to extend the rule to cover the activities of concern to Occidental; indeed, EPA expressly distinguished Occidental's activities from those being regulated and suggested that they are unlikely to be regulated in the future. Therefore, the actions taken by Occidental in *anticipation* of unspecified regulations are not fairly traceable to EPA's 2014 rulemaking.

Neither Southern nor Occidental can show any injury sufficient to satisfy the requirements of Article III. They therefore lack standing. Carbon Sequestration Council lacks standing because Southern lacks standing. And American Petroleum Institute lacks standing because Occidental lacks standing. The petitions for review are hereby dismissed.

I. BACKGROUND

Because Petitioners lack standing, we have no occasion to consider whether supercritical fluids injected into a Class VI well that is subject to regulation under the Safe Drinking Water Act constitute "solid waste" that must also be regulated under RCRA. Nevertheless, because the regulatory context is crucial to understanding the Article III standing issues in this case, we begin with a brief review of the relevant statutes and regulations.

A. *The Safe Drinking Water Act's Regulation of Underground Injection of Fluids*

The Safe Drinking Water Act, 42 U.S.C. § 300f *et seq.*, empowers EPA to promulgate regulations protecting the quality of drinking water sources in the United States. One of the industrial activities regulated under the statute is the injection of fluids into underground wells, when that injection may endanger the safety of drinking water sources. *Id.* § 300h(b)(1). To prevent any danger from underground injection of fluids, EPA has promulgated regulations creating “classes” of underground injection control wells, each with different construction and use requirements, and each authorized to receive different kinds of fluids under different circumstances. *See* 40 C.F.R. § 144.6 (describing the classes of wells). For example, Class I wells are the most secure and can be used for the injection of hazardous and radioactive waste. Class II wells are used for natural gas storage operations or oil or natural gas production. *See id.* This case involves the recently created “Class VI” well, which EPA created for carbon capture and storage operations involving the geologic sequestration of carbon dioxide. Any well owner or operator who seeks to inject fluids underground must meet the permitting requirements for the kind of injection well they intend to operate.

B. *The Resource Conservation and Recovery Act's Regulation of Solid Waste*

EPA also administers RCRA, which establishes regulatory standards for “solid waste.” Under RCRA, generators of solid waste must determine whether that waste is hazardous, and then treat hazardous solid waste according to various regulatory requirements. The Act defines “solid waste,” in relevant part, as follows:

The term “solid waste” means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility *and other discarded material, including solid, liquid, semisolid, or contained gaseous material* resulting from industrial, commercial, mining, and agricultural operations

42 U.S.C. § 6903(27) (emphasis added). Importantly, this definition makes clear that statutory “solid waste” is not limited only to waste that is solid. Rather, it includes “other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations.” *See id.* Some waste that is not in a solid state – for example, liquid waste – can thus be considered “solid waste” within the meaning of the statute if it is “discarded material” and otherwise within the definition in the statute.

As noted above, generators of solid waste “must determine if that waste is a hazardous waste.” 40 C.F.R. § 262.11. The statute defines “hazardous waste” as follows:

The term “hazardous waste” means a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may –

(A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or

(B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

42 U.S.C. § 6903(5). The Act then creates a “‘cradle-to-grave’ regulatory structure overseeing the safe treatment, storage and disposal of hazardous waste.” *United Techs. Corp. v. EPA*, 821 F.2d 714, 716 (D.C. Cir. 1987).

EPA has construed RCRA to allow it to conditionally exclude regulated parties from the potentially costly requirement of determining whether solid waste is hazardous. *See Military Toxics Project v. EPA*, 146 F.3d 948, 958 (D.C. Cir. 1998) (upholding the authority to grant conditional exclusions). Whether a waste should be exempted from hazardous waste regulation “turns upon [EPA’s] assessment of whether such regulation is necessary to protect human health and the environment.” *Id.*; *see* 42 U.S.C. § 6922(a) (directing EPA to issue regulations governing the management of hazardous waste “as may be necessary to protect human health and the environment”).

C. Geologic Sequestration of Carbon Dioxide and the “Class VI” Well

Carbon capture and storage is an emerging climate change mitigation program that involves capturing carbon dioxide from industrial sources, compressing it into a “supercritical fluid,” and injecting that fluid underground for the purposes of geologic sequestration, with the goal of preventing the carbon from reentering the atmosphere. Because the last of these steps – geologic sequestration of the supercritical carbon dioxide – involves the injection of fluid into underground wells, it is subject to regulation under the Safe Drinking Water Act.

As carbon capture and storage technologies developed, EPA concluded that, in compliance with the Safe Drinking Water Act, it should create a new “class” of underground

injection well specifically to govern injection of carbon dioxide for geologic sequestration. After notice and comment, EPA promulgated a rule creating the “Class VI” well. *See* 75 Fed. Reg. at 77,230. The Class VI well exists strictly “for underground injection of carbon dioxide (CO₂) for the purpose of geologic sequestration.” *Id.*

While the Class VI well is meant to receive carbon dioxide streams for geologic sequestration, EPA clarified in the rule that the wells could not receive “any carbon dioxide stream that meets the definition of a hazardous waste under” RCRA and its associated regulations. *Id.* at 77,231.

A number of commenters expressed concerns about this exclusion of hazardous waste from Class VI wells because it suggested that some supercritical carbon dioxide streams were solid waste regulated by RCRA. Although EPA had never addressed this issue, these commenters feared that if EPA found RCRA applicable to these carbon dioxide streams this would require regulated parties to make costly pre-injection determinations as to whether their streams were hazardous.

Although the commenters raised their concerns during the course of the Class VI rulemaking proceedings, EPA stated that the Class VI rule “does not itself change applicable RCRA regulations.” *Id.* at 77,260. The agency thus made clear that the Class VI rule did not provide an answer to the question whether geologically sequestered carbon dioxide streams are either solid or hazardous waste.

D. EPA’s Rulemaking to Determine RCRA’s Applicability to Geologically Sequestered Carbon Dioxide Streams

In 2010, EPA initiated a rulemaking to determine whether RCRA applies to carbon dioxide streams being

geologically sequestered in a Class VI well. *See* Hazardous Waste Management System: Identification and Listing of Hazardous Waste: Carbon Dioxide (CO₂) Streams in Geologic Sequestration Activities, 76 Fed. Reg. 48,073 (Aug. 8, 2011) (proposed rule). In the course of this rulemaking, EPA made two principal determinations.

First, EPA concluded that a “supercritical [carbon dioxide] stream injected into a permitted . . . Class VI well for purposes of [geologic sequestration] is a RCRA solid waste.” 76 Fed. Reg. at 48,077–78; *see also* 79 Fed. Reg. at 355. The relevant part of RCRA’s “solid waste” definition reads:

The term “solid waste” means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility *and other discarded material, including solid, liquid, semisolid, or contained gaseous material* resulting from industrial, commercial, mining, and agricultural operations

42 U.S.C. § 6903(27) (emphasis added).

Several commenters had argued that supercritical carbon dioxide streams injected into Class VI wells for purposes of geologic sequestration could not be solid waste because, as “supercritical fluids” that are neither liquids nor gases but have properties of both, they are not among the “solid, liquid, semisolid, or contained gaseous” physical states mentioned in the definition. *See* 79 Fed. Reg. at 354–55. These commenters also argued that the carbon dioxide streams were not “discarded” when they were injected for the purpose of geologic sequestration in a Class VI well, because the carbon dioxide streams could be extracted again and used productively in drilling and other operations. *Id.*

EPA rejected these arguments, interpreting the statute to include these supercritical fluid streams. It stated that while “supercritical fluids” were not expressly mentioned in the statutory list defining “solid waste,” the list was illustrative, not exhaustive, and supercritical fluids were similar to the physical states expressly included. *See id.* Furthermore, EPA found that carbon dioxide streams injected into Class VI wells for the purpose of long-term geologic sequestration were “discarded” at the moment they were injected, even if they could, theoretically, be extracted again for other uses. *Id.* As a result, these streams, when injected into Class VI wells for the purpose of geologic sequestration, were solid waste and subject to regulation under RCRA.

Second, EPA concluded that although it “believes that the RCRA hazardous waste regulations can apply to [carbon dioxide] streams being geologically sequestered” because these streams are solid waste, 76 Fed. Reg. at 48,077, it would nevertheless grant a conditional exclusion from the definition of “hazardous waste” for such supercritical carbon dioxide streams when the generators and injectors of those streams abided by certain requirements. 79 Fed. Reg. at 355–57. EPA concluded that RCRA regulations were unnecessary because existing pipeline safety regulations promulgated by the Department of Transportation, in conjunction with the safety requirements already in place in the Class VI regulations, were sufficient to achieve RCRA’s goals. 76 Fed. Reg. at 48,081. Under EPA’s conditional exclusion, generators and well owners and operators could consider their carbon dioxide streams excluded from the hazardous waste definition, and could avoid testing their solid waste streams for hazardous properties, if they: (1) abided by the relevant Department of Transportation pipeline regulations, (2) abided by the Class VI injection regulations, (3) did not mix other hazardous wastes with their carbon dioxide streams, and (4) certified to

the above conditions. 40 C.F.R. § 261.4(h). Thus, excluded streams could be injected into Class VI wells without running afoul of the Class VI regulation's ban on the injection of RCRA hazardous waste.

Petitioners do not contest the portion of EPA's rule that creates a conditional exclusion from the hazardous waste definition. Instead, Petitioners challenge only EPA's determination that supercritical carbon dioxide streams injected into Class VI wells are "solid waste" within the meaning of 42 U.S.C. § 6903(27).

Before this court, Petitioners submit two declarations to demonstrate their standing to pursue their petitions for review. The first of these declarations is from petitioner Southern Company Services, Inc., which is part of a corporate family that includes several electricity generating power plants. Southern is also a member of petitioner Carbon Sequestration Council, which claims representational standing on behalf of Southern. Southern's corporate family tests carbon capture technology, participates in geologic sequestration experiments in "Class V" experimental wells, and also captures carbon for use in enhanced oil recovery and other commercial purposes. The second declaration is from Occidental Oil and Gas. Occidental is a member of petitioner American Petroleum Institute, which claims representational standing on behalf of Occidental. Occidental is an oil exploration company that injects carbon dioxide into underground wells as part of its drilling operations.

The record is clear that neither Occidental nor Southern operates or plans to operate Class VI wells and neither is regulated in any way by the narrow rule at issue in this case. Since neither can show any injury attributable to EPA's disputed rule, they lack the standing necessary to satisfy the

requirements of Article III. Carbon Sequestration Council lacks standing because Southern lacks standing. Likewise, American Petroleum lacks standing because Occidental lacks standing.

II. ANALYSIS

“It is well understood that a party who seeks to pursue an action in federal court must first establish Article III standing.” *Bauer v. Mavi Marmara*, 774 F.3d 1026, 1028 (D.C. Cir. 2014). Therefore, a federal court cannot proceed to the merits of a claim unless it can satisfy itself that at least one claimant has standing to bring suit.

As the party invoking federal jurisdiction, Petitioners “bear[] the burden of establishing” standing. *Lujan*, 504 U.S. at 561. In a case such as this,

[t]he petitioner's burden of production in the court of appeals is . . . the same as that of a plaintiff moving for summary judgment in the district court: it must support each element of its claim to standing by affidavit or other evidence. Its burden of proof is to show a substantial probability that it has been injured, that the defendant caused its injury, and that the court could redress that injury.

Sierra Club, 292 F.3d at 899 (citation and internal quotation marks omitted).

In some cases, such as when a petitioner is “an object of the action” under review, standing may be “self-evident.” *Id.* at 899–900 (internal quotation marks omitted). But when a “petitioner’s standing is not self-evident . . . the petitioner *must* supplement the record to the extent necessary to explain

and substantiate its entitlement to judicial review.” *Id.* at 900 (emphasis added). Thus, a petitioner has a duty to “establish its standing by the submission of its arguments and any affidavits or other evidence appurtenant thereto at the first appropriate point in the review proceeding.” *Id.* “Requiring the petitioner to establish its standing at the outset of its case is the most fair and orderly process by which to determine whether the petitioner has standing to invoke the jurisdiction of the court.” *Id.* at 901. And because the party seeking to invoke the jurisdiction of the court carries the burden of proof, we normally accept a petitioner’s submissions in support of standing as offered. The court then determines whether the petitioner’s submissions demonstrate a substantial probability of actual or imminent injury, show that the alleged injury was caused by the disputed agency action, and indicate that the court can redress that injury.

As we explain below, Petitioners have failed to meet their burden of proof necessary to demonstrate standing.

A. *Southern Company Services, Inc.*

Southern provides regulatory and engineering services for its corporate family, which delivers energy-related services, including electric power, in the states of Alabama, Georgia, Florida, and Mississippi. Southern submitted the declaration of Richard A. Esposito, its Principal Research Geologist, in support of its claim to standing and in support of Carbon Sequestration Council’s claim to representational standing.

Esposito’s affidavit describes Southern’s involvement in carbon capture, including testing carbon capture technologies and installing carbon capture equipment on a variety of the electricity generating plants in its corporate family. Among

other things, Southern's corporate family provides supercritical carbon dioxide from several of its plants for geologic sequestration demonstration projects being conducted by the United States Department of Energy. Much of the captured carbon dioxide from the plants is injected into Class V wells, which are authorized for testing experimental technologies such as those involved in geologic sequestration. Decl. of Richard A. Esposito ¶¶ 7–8, 10. Beyond its involvement in testing carbon sequestration technologies using experimental Class V wells, Southern's corporate family also plans to capture carbon dioxide for use by other companies in enhanced oil recovery and for "other commercial uses." *Id.* ¶¶ 13–14. Esposito's affidavit contends that EPA's solid waste determination injures Southern by requiring it to incur costs to determine whether its carbon dioxide streams are hazardous.

Southern lacks standing because Esposito's affidavit fails to point to any activity covered by the regulation at issue in this case – namely, the injection of "a supercritical [carbon dioxide] stream . . . into a permitted . . . Class VI well for purposes of [geologic sequestration]." 79 Fed. Reg. at 354. As a result, there is no evidence in the record to support Southern's claim that the disputed rule injures Southern by requiring it to incur costs related to determining whether its carbon dioxide streams are hazardous waste. Stated simply, the record is devoid of evidence showing that Southern is regulated or otherwise injured by EPA's solid waste determination.

As noted above, Southern has averred that it engages or plans to engage in two assertedly relevant activities: (1) capturing carbon dioxide for use in enhanced oil recovery and "other commercial uses," and (2) capturing carbon dioxide for injection into Class V experimental wells in connection with

geologic sequestration demonstration projects. Neither of these activities is covered by EPA's solid waste determination. EPA has strictly and clearly limited its solid waste determination to carbon dioxide streams injected into Class VI wells for purposes of geologic sequestration, meaning that any requirement that Southern might have to determine whether its carbon dioxide streams are hazardous is speculative rather than actual or imminent. There is no evidence that Southern operates or plans to operate Class VI wells, or that any of Southern's business activities are covered by this rule.

Petitioners attempt to escape this conclusion by stating that "Southern is harmed by EPA's decision to include captured supercritical carbon dioxide streams in the definition of 'solid waste' because Southern will incur costs to determine if any carbon dioxide stream it captures is a RCRA hazardous waste." Opening Br. of Petitioners 16. In support of this theory of standing, Southern points to Esposito's declaration in which he states that "[u]nder the final rule, it will be necessary for *anyone who captures carbon dioxide streams from an emission source* to determine whether the captured carbon dioxide stream is a 'hazardous waste' subject to RCRA." Decl. of Richard A. Esposito ¶ 18 (emphasis added). This claim finds no support in the record.

EPA has made it very clear in its rule, in its brief, and during oral argument before the court that its solid waste determination is limited to supercritical carbon dioxide streams injected into Class VI wells for the purpose of geologic sequestration. The rule does not classify carbon dioxide used in enhanced oil recovery or for experimentation in Class V wells as "solid waste," and so Esposito's statement that "anyone who captures carbon dioxide streams from an emission source [must] determine whether the captured

carbon dioxide stream is a ‘hazardous waste’” is simply wrong.

In a vain attempt to support their position, Esposito and Petitioners selectively quote part of EPA’s proposed rule as saying that “all generators that capture [carbon dioxide] . . . would incur costs to determine if the [carbon dioxide] stream is a RCRA hazardous waste.” *See, e.g.*, Opening Br. of Petitioners 16–17 (quoting 76 Fed. Reg. at 48,089). But Esposito and Petitioners leave out that this quotation comes from the proposed rule’s economic assessment of the possible impact of the rule, in which EPA “assume[d]” that all existing generators capturing carbon would incur costs. 76 Fed. Reg. at 48,089. In the context of the cost-benefit analysis that assumption made sense, because EPA also “assume[d] . . . all generators that capture [carbon dioxide] will . . . send their [carbon dioxide] streams to Class VI wells.” *Id.* at 48,090. These assumptions do not define the scope of the disputed rule. To the contrary, EPA has stated that it “considers [supercritical carbon dioxide streams] to be a solid waste” only “[o]nce the decision is made that the supercritical [carbon dioxide] stream will be sent to a . . . Class VI well for discard.” 76 Fed. Reg. at 48,078. Since Southern has not stated that it currently or in the future intends to send its carbon dioxide streams to Class VI wells, the rule, by its own terms, does not apply, and Southern will not incur the injuries it claims as a result of EPA’s solid waste determination in this case.

With respect to the use of carbon dioxide in commercial activities such as enhanced oil recovery, EPA expressly distinguished such commercial uses of carbon dioxide from the specific, narrow use at issue in this case. EPA made it clear that carbon dioxide used in oil recovery raises issues that “are beyond the scope of this final rule.” 79 Fed. Reg. at 355.

The rule concerns only carbon dioxide “streams when they are *to be injected into . . . Class VI wells for the purpose of [geologic sequestration].*” *Id.* (emphasis in original).

It is no less clear that EPA’s rule does not embrace any determination regarding Class V experimental wells, because EPA explicitly stated in its solid waste determination that the “rule is not intended to affect the status of [carbon dioxide] that is injected into wells other than . . . Class VI wells.” 76 Fed. Reg. at 48,078 & n.16. Counsel for EPA also confirmed at oral argument that the agency’s solid waste determination in this rule did not reach experimental injection into Class V wells. Oral Arg. 24:35.

Finally, Petitioners argue that Southern is injured by EPA’s solid waste determination because the company may not always be able to rely on the conditional exclusion included in EPA’s final rule. And, according to Petitioners, this may cause Southern to incur the costs associated with the requirement to make hazardous waste determinations. For example, “Southern may decide to contract for geologic sequestration of some of [its] carbon dioxide . . . through a commingled pipeline system” that will deliver carbon dioxide streams both to Class VI wells and to other uses such as enhanced oil recovery operations. Reply Br. of Petitioners 11. “In that circumstance, Southern will have no way of knowing whether its carbon dioxide stream is actually sequestered in a Class VI well . . .” *Id.* EPA contests Southern’s description of the requirements of the conditional exclusion, arguing that Southern would have no difficulty abiding by the exclusion. We need not address this matter, however, because Southern’s claim fails on its own terms. The Esposito affidavit does not say, or even suggest, that Southern is considering entering into such an arrangement. In order to establish standing, a petitioner’s evidentiary submissions “must be more than an

ingenious academic exercise in the conceivable.” *Alaska Legislative Council v. Babbitt*, 181 F.3d 1333, 1339 (D.C. Cir. 1999) (internal quotation marks omitted). Counsel’s unsupported assertions in a Reply Brief are inadequate to meet the burden of proof to demonstrate standing.

B. *The American Petroleum Institute and Occidental Oil and Gas*

American Petroleum Institute, a party in this case, attempts to rely on its member Occidental Oil and Gas in support of representational standing. *See Public Citizen, Inc. v. Nat’l Highway Traffic Safety Admin.*, 489 F.3d 1279, 1289 (D.C. Cir. 2007) (“An organization has standing to sue on behalf of its members when, among other things, its members would otherwise have standing to sue in their own right.” (internal quotation marks omitted)). Occidental produces oil and gas in the United States and around the world, occasionally using enhanced oil recovery processes involving the injection of carbon dioxide into underground wells. In support of standing, Occidental submitted the affidavit of Greg Hardin, its Director of Regulatory Affairs.

Hardin’s affidavit explains Occidental’s use of carbon dioxide streams in its oil exploration efforts, which involve injecting these streams underground to release trapped oil from porous rock and make the oil flow more easily to the wellhead. The affidavit states that over time virtually all of the injected carbon dioxide becomes permanently trapped underground, occupying the pore space remaining after the oil and gas have been produced. While Hardin acknowledges that the rule under review does not directly cover Occidental’s use of carbon dioxide streams, and further acknowledges that the rule explicitly indicates that EPA’s position is that use of carbon dioxide streams in enhanced oil recovery “would not

generally be a waste management activity,” Hardin nevertheless claims that the rule injures Occidental. Decl. of Greg Hardin ¶ 8 (quoting 79 Fed. Reg. at 355).

Hardin contends that EPA’s “broad assertion” of authority resulting from the agency’s solid waste determination may presage further regulatory action touching on Occidental’s drilling operations. *See id.* ¶¶ 8–9. For this reason, Hardin claims that “EPA’s assertion of authority, if left undisturbed, will influence Occidental’s business decisions concerning the expansion of [carbon dioxide enhanced oil recovery] going forward.” *Id.* ¶ 8. This is insufficient to demonstrate standing.

Occidental has not averred that it is engaged in any activity regulated by the narrow rule at issue in this case. Any injury it could claim as a direct result of the regulation would be speculative, because, as demonstrated above, EPA carefully cabined its rule to encompass only the injection of carbon dioxide streams into Class VI wells for purposes of geologic sequestration. Occidental has not claimed any interest in pursuing these regulated activities. Perhaps sensing this problem, Petitioners do not claim that Occidental will incur costs as a direct consequence of EPA’s solid waste determination. Rather, they claim that EPA’s determination “will influence Occidental’s business decisions,” forcing it to incur costs and alter its behavior in anticipation of incremental regulatory action. *See* Opening Br. of Petitioners 17–18.

In support of their position, Petitioners cite *Sabre, Inc. v. Department of Transportation*, 429 F.3d 1113 (D.C. Cir. 2005). In *Sabre*, the Department of Transportation (“Department”) issued a rule “unambiguously claim[ing] jurisdiction over” Sabre, the petitioner in that case. *Id.* at

1117. Although that contested claim of jurisdiction did not itself impose any immediate regulatory injuries, this court found that Sabre had standing to challenge the jurisdictional determination because the Department's statements "indicate[d] a very high probability that it [would] act against a practice that" Sabre had shown, through detailed evidence, it was interested in pursuing. *Id.* Specifically, the Department "strongly condemn[ed]" Sabre's desired activity and made clear that it viewed it as "categorically anti-competitive and unfair," "reject[ing] arguments that [it] may have social benefits." *Id.* Because the Department had authority to impose penalties on Sabre without any further action, the court found that, under these circumstances, the Department's assertion of jurisdiction had "immediate, unavoidable implications for Sabre's business choices and investments, which constitutes a sufficiently distinct and palpable injury." *Id.* at 1118. Because Sabre had "proffered evidence in a sealed supplemental declaration that confirm[ed] the present existence" of business plans that would be interrupted as a result of the Department's assertion of jurisdiction, the court concluded that the company had met its burden of showing that its "injury [was] actual, not conjectural or hypothetical." *Id.*

Sabre is clearly inapposite, and gives no support to Occidental's standing claim here. Unlike that case, in which the agency had unambiguously established jurisdiction over a party, in this case EPA has – as Hardin admits in his affidavit – explicitly declined to assert jurisdiction over the enhanced oil recovery activities engaged in by Occidental. Additionally, the agency's statements in *Sabre* explicitly condemned the regulated party's desired activity and indicated a high likelihood of agency enforcement action. Occidental has faced no such statements from EPA in this case. In fact, EPA has stated its "expectation that [injection of carbon dioxide streams as part of enhanced oil recovery] would not generally

be a waste management activity” subject to RCRA. 79 Fed. Reg. at 355.

In sum, the record in this case stands in stark contrast to the situation encountered by the regulated party in *Sabre*. The disputed rule here is indisputably narrow and it does not capture any of Occidental’s business activities. Therefore, Occidental cannot show that EPA’s solid waste determination has “immediate, unavoidable implications” for its business that create a “distinct and palpable injury.” Occidental speculates that its enhanced oil recovery activities may at some ill-defined time in the future be subject to the disputed rule. But there is nothing in the record to support this claim. Standing cannot be “inferred argumentatively,” based on a party’s “(mis)characterization” and “exaggeration of [an agency’s] findings.” See *Advanced Mgmt. Tech., Inc. v. FAA*, 211 F.3d 633, 636 (D.C. Cir. 2000) (citation omitted). Occidental surely cannot claim injury sufficient to satisfy the requirements of Article III standing based purely on a speculative concern that EPA may choose to regulate its business at some point in the indefinite future. And any business decisions prompted by its misreading of the solid waste determination cannot reasonably be attributed to EPA. Because Occidental lacks standing, the Institute cannot claim representational standing on its behalf.

III. CONCLUSION

Because Petitioners have failed to establish the standing of any party in this case, we dismiss the petitions for review.

So ordered.