

ORAL ARGUMENT SCHEDULED FOR JANUARY 20, 2026

No. 24-1193

(consolidated with Nos. 24-1261, 24-1266, 24-1271, 24-1272)

**In the United States Court of Appeals
For the District of Columbia**

CHAMBER OF COMMERCE OF THE
UNITED STATES OF AMERICA et al.,
Petitioners,

v.

ENVIRONMENTAL PROTECTION AGENCY AND LEE M. ZELDIN,
IN HIS OFFICIAL CAPACITY AS ADMINISTRATOR, UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY,
Respondents, and

CLEAN CAPE FEAR, et al.,
Respondent-Intervenors

On Petition for Review of Final Action by the United
States Environmental Protection Agency –
89 Fed. Reg. 39,124 (May 8, 2024)

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GLOSSARY OF ACRONYMS AND ABBREVIATIONS

APA	Administrative Procedure Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
EA	Economic Assessment
NPL	National Priorities List
PFAS	Per- and polyfluoroalkyl substances
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctane sulfonic acid
PRPs	Potentially Responsible Parties
RCRA	Resource Conservation and Recovery Act
RFA	Regulatory Flexibility Act
RIA	Regulatory Impact Analysis

INTRODUCTION AND SUMMARY OF ARGUMENT

EPA’s response brief confirms that this Court should grant the petition for review and vacate the Final Rule.¹

To start, EPA’s brief confirms that EPA’s interpretation of “may present substantial danger” lacks fixed boundaries and flips CERCLA’s statutory hierarchy on its head. And this was not the “only possible” interpretation, as EPA claims—EPA has itself proposed alternatives. Indeed, EPA admitted two months ago that this interpretation fails to “establish[] the rules of the road” for designating substances under Section 102, and promised to fix it in a forthcoming “Framework Rule.” EPA, *Trump EPA Announces Next Steps on Regulatory PFOA and PFOS Cleanup Efforts, Provides Update on Liability and Passive Receiver Issues*, <https://www.epa.gov/newsreleases/trump-epa-announces-next-steps-regulatory-pfoa-and-pfos-cleanup-efforts-provides> (Sept. 17, 2025) (“September 2025 Announcement”) (JA __-__).

EPA’s notice-and-comment violation is also fatal. EPA cannot surprise commenters at the end of rulemaking by switching from a narrow cost-blind

¹ 89 Fed. Reg. 39,124-01 (May 8, 2024).

justification to a new 300-page cost-benefit analysis—particularly one with serious methodological errors. Those errors don’t just affect specific cost estimates, as EPA claims; they infect the entire analysis. And EPA is wrong that the errors don’t matter because EPA ultimately took the same action it proposed. No case supports that remarkable assertion, which would eviscerate the notice-and-comment requirement.

EPA cannot defend these errors on the merits, either. For example, EPA doubles down on its incredible assertion that *new* cleanup costs—created by the rule—are not costs, but rather a *benefit*, if borne by Potentially Responsible Parties (PRPs). But EPA does not, and cannot, explain how that makes any sense.

EPA also confirms that the Final Rule threatens severe liability despite enormous uncertainty, but claims that the rule is only a minimal threshold step. It is not. In response to the Final Rule, companies are projected to begin (and in some cases already have begun) making costly changes to their operations. As EPA admitted in its September 2025 Announcement, the agency “should take costs to manufacturers, passive receivers, consumers, and the economy at large very seriously” before designating a new hazardous substance under Section 102. JA ___. Yet EPA largely ignored such costs in the Final Rule, citing uncertainty. While some level of uncertainty is acceptable, “action infected by enough uncertainty

cannot be called reasoned.” *Ctr. for Biological Diversity v. EPA*, 749 F.3d 1079, 1090 (D.C. Cir. 2014). That is the case here.

Finally, vacatur is warranted. The rule contains multiple fatal flaws and continues to disrupt businesses across the country.

ARGUMENT

I. EPA misinterprets the term “may present substantial danger.”

EPA’s brief confirms that under the Final Rule, EPA believes it has “broad discretion” to designate a hazardous substance if there is even “a possibility” that the substance “can lead to” any “adverse health effects.” EPA Br. 12-13. EPA further claims it can find this “possibility” whenever a substance is “associated” with any such effects. *Id.* at 13-14.

According to EPA, this is the “only possible” reading of the phrase “may present substantial danger.” *Id.* at 29. But that isn’t true, because: (A) EPA’s reading has no “fixed boundaries” that establish “rules of the road” for applying Section 102(a); (B) EPA’s reading is inconsistent with CERCLA’s statutory structure; and (C) better readings of Section 102(a) exist, as confirmed by prior EPA interpretations and the statutory text. *Compare* Opening Br. 30-39 *with* EPA Br. 31-39.

A. EPA’s interpretation has no fixed boundaries.

EPA’s brief confirms that its interpretation of “may present substantial danger” places no “fixed boundaries” on its discretion to designate “hazardous substances” under CERCLA. Opening Br. 30-31 (quoting *Loper Bright Enters. v. Raimondo*, 603 U.S. 369, 395 (2024)); *see also* Superfund Settlements Project Am. Br. 5-8. Indeed, after filing this brief, EPA admitted that its reading fails to “establish[] the rules of the road” for designation. September 2025 Announcement (JA ____).² EPA intends to remedy this in a “Framework Rule” that “will provide a uniform approach to guide future hazardous designations, including how the agency will consider the costs of proposed designations.” *Id.* That belated corrective effort comes too late to save *this* rule.

² Specifically, EPA explained that under the prior presidential administration, EPA had published an advanced notice of proposed rulemaking for other PFAS chemistries that failed to establish the “rules of the road.” September 2025 Announcement (JA ____). That prior notice had adopted the same interpretation of “may present substantial danger” as that in the Final Rule. *See* 88 Fed. Reg. 22,399, 22,401 (Apr. 13, 2023) (relying on interpretation of statutory language set forth in Proposed Rule, which in turn is identical to interpretation in Final Rule).

1. Despite its admissions, EPA attempts to defend its unbounded interpretation of Section 102(a), erroneously claiming this is the best reading of the statute.

First, EPA argues that it may not designate “any substance” based only on the “mere ‘possibility of harm,’” because it also considers “environmental fate and transport” to be a “central factor.” EPA Br. 32, 37-38. *See also* Int. Br. 17; States Am. Br. 11. But as Petitioners explained, neither this factor (nor any other) actually limits EPA’s ability to find *possible* harm. Opening Br. 31-32. When applying this factor, EPA says that it “*may* consider whether a substance moves readily through the environment, and whether it persists and/or changes.” *Id.* at 16 (quoting Final Rule, emphasis added). These qualities might (should EPA even consider them) decrease the likelihood of harm. But even a substance that doesn’t travel and quickly decays could still *possibly* harm someone. So this factor imposes no meaningful constraint.

Second, despite its claims otherwise, EPA’s interpretation of the term “may present substantial danger” is far broader than judicial constructions of the similar term “may present an imminent and substantial endangerment” in the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. §§ 6972, 6973. EPA Br. 32.

Those cases construed RCRA to require “a reasonable prospect that a serious, near-term threat to human health or the environment exists.” *Maine People’s All. v. Mallinckrodt, Inc.*, 471 F.3d 277, 279 (1st Cir. 2006). *See Liebhart v. SPX Corp.*, 917 F.3d 952, 959 (7th Cir. 2019) (joining *Mallinckrodt*). That’s far more circumscribed than EPA’s interpretation here. Opening Br. 15-17.

Third, EPA claims that Congress knew how to require specific standards in Section 105 of CERCLA and chose not to do so in Section 102. EPA Br. 31-32. But Section 105 does not, in fact, provide criteria for defining “substantial danger,” as EPA recognized when it interpreted the term through regulation. Opening Br. 38. And in all events, it doesn’t follow that Congress wanted *no* standards under Section 102(a). If it did, that would walk the statute into a non-delegation problem, as even Intervenor’s acknowledge. Int. Br. 15-16 (acknowledging that the Constitution requires “fixed boundaries” to agency discretion). If EPA’s interpretation has no fixed boundaries, then either (A) the agency’s interpretation is broader than what Congress delegated, or (B) what Congress delegated was unconstitutional. *See* Opening Br. 34-35.

2. Intervenor’s attack Petitioners’ reliance on *ACA International*, which rejected an agency interpretation that was “unreasonable in [its] breadth” and

“assume[d] an eye-popping sweep.” Opening Br. 31 (quoting *ACA Int’l v. FCC*, 885 F.3d 687, 697, 699 (D.C. Cir. 2018)). That decision did turn in part on “anomalous outcomes” flowing from the challenged interpretation. *Id.* at 697; *see* Int. Br. 16. But as Intervenor and EPA don’t dispute, the Final Rule produces similarly anomalous outcomes, including by granting EPA authority to designate *salt* as a hazardous substance. Opening Br. 32-33. And *ACA International* also turned on a lack of fixed boundaries. 885 F.3d at 700 (“That interpretation of the statute ... is an unreasonably, and impermissibly, expansive one.”).

Intervenor’s case law is inapposite. They cite several cases that purportedly uphold standards as broad as EPA’s here, but this Court wasn’t asked in these cases to decide whether an agency’s interpretation was adequately constrained. Int. Br. 19-20. Intervenor also claim that agencies are allowed to use “multi-factor” tests, but this is beside the point. Int. Br. 18-19 (citing *PDK Lab’ys Inc. v. U.S. Drug Enf’t Admin.*, 438 F.3d 1184, 1195 (D.C. Cir. 2006) and *Catawba Cnty. v. EPA*, 571 F.3d 20, 39 (D.C. Cir. 2009)). Petitioners make no claim about whether EPA can *use* a multi-factored test. Opening Br. 31. Rather, the point is that EPA’s test did nothing to *limit* a standard that otherwise lacks fixed boundaries. Put differently, the *reason* EPA’s standard lacks boundaries is that it extends to any “possibility” of harm. Its

multi-factored test doesn't fix *that* problem—it doesn't limit the subject of that “possibility” (“substantial danger”) in any meaningful way. However EPA weighs its various factors, that unbounded “possibility” will remain.

3. Finally, EPA and Intervenors claim that the Final Rule doesn't violate Due Process. EPA Br. 35-36; Int. Br. 24-25. But they ignore that heightened protection is needed because CERCLA has been applied retroactively. Opening Br. 34. At minimum, this constitutional problem is another reason to reject EPA's reading. *Id.*

B. EPA's interpretation is inconsistent with the statutory structure.

EPA's interpretation of “may present substantial danger” is also inconsistent with CERCLA's statutory structure. CERCLA creates a hierarchy between “hazardous substances” and “pollutants or contaminants,” providing broader authority over the former. Opening Br. 35-36. And to unlock that broader authority, EPA must satisfy a higher legal standard. *Id.* The Final Rule, however, makes this standard the *easier* one to satisfy. *Id.*

EPA doesn't dispute several of these premises. It agrees that “CERCLA's authority to address pollutants or contaminants is much more circumscribed than the authority to address hazardous substances.” 89 Fed. Reg. at 39,127. *See also* EPA Br. 8; Int. Br. 23. And it doesn't contest that if the standard for “hazardous

substance” were easier to satisfy, this statutory hierarchy collapses. *See* EPA Br. 33-34.

Instead, EPA disputes that its hazardous-substance standard is easier to satisfy. It acknowledges that CERCLA’s definition of “pollutants or contaminants” *includes* a legal standard (“will or may reasonably be anticipated to cause death, disease,” etc.) that’s higher than the hazardous-substance standard in the Final Rule. *Id.* at 33. But in EPA’s view, the pollutant-or-contaminant definition contains a catch-all that is “open-ended” and “non-exclusive,” such that it encompasses all manner of lower standards too, including the Final Rule’s hazardous-substance standard. *Id.* at 34.

That is incorrect. The definition of “pollutants or contaminants” may contain a “catchall.” But it’s constrained by the canon of *ejusdem generis*, extending only to substances sufficiently similar to those described in the specific example (i.e., those that “will or may reasonably be anticipated to cause death, disease,” etc.). *See Hughey v. United States*, 495 U.S. 411, 419 (1990) (“[A] general statutory term should be understood in light of the specific terms that surround it”). The Final Rule’s hazardous-substance standard is much broader than that—it extends to

practically *any* substance, including those that are “associated” with any “adverse health effects,” no matter how insignificant. 89 Fed. Reg. at 39,141.

Unlike EPA, Intervenors deny any “hierarchy,” claiming instead that pollutants or contaminants are identified on a “site-specific basis.” Int. Br. 23. But that only reinforces Petitioners’ point. If EPA can achieve nationwide authority by satisfying a lower standard for hazardous substances, why would it bother seeking lesser, site-specific authority that requires satisfying the higher standard for pollutants or contaminants? Intervenors offer no answer.

C. EPA’s interpretation of “may present substantial danger” is not the best reading of the text.

EPA claims it could not have provided a more definite standard, but EPA has done so before when interpreting the same or similar terms. Opening Br. 37-39. That’s not to say EPA must provide “bright-line limits” or “quantitative thresholds.” EPA Br. 37; Int. Br. 18. But EPA must provide *some* meaningful constraint. It has not done so here.

In 1983, for example, EPA proposed four alternative definitions of “may present substantial danger,” all of which would have provided concrete boundaries. Opening Br. 10-11. EPA cannot now simply ignore these standards (EPA Br. 38-

39) because they demonstrate that the agency *could* have recognized similar boundaries in the Final Rule, Opening Br. 37.

EPA claims it could not adopt the 1983 boundaries because it previously acknowledged the “possibility” that “there would be no general agreement in the scientific community” on how to apply these alternative approaches. EPA Br. 38 (quoting 48 Fed. Reg. 23,602, 23,604 (May 25, 1983)). But that was just a potential practical problem that EPA identified, not a legal infirmity. And in all events, the quoted language relates only to one of the four proposed standards (the “hazard index approach”). 48 Fed. Reg. at 23,604. EPA points to no similar issue with the others.

EPA has also interpreted the term “pose substantial danger” in nearby Section 105 of CERCLA through a regulation that relies on quantitative cancer risks. EPA Br. 38. EPA acknowledges this, but insists such boundaries are possible only for “site-specific” remedial determinations and not “at the designation stage” under Section 102. *Id.* at 37. Not so. As Petitioners already explained, EPA has used similar quantitative thresholds when applying a provision of RCRA which, like Section 102, is not “site-specific.” Opening Br. 38-39. EPA has no response. Furthermore, by assuming the phrase “substantial danger” has two different meanings in CERCLA Sections 102 and 105, EPA violates “the canon of consistent

usage.” *United States v. Pornpimol Kanchanalak*, 192 F.3d 1037, 1048 (D.C. Cir. 1999).

Finally, EPA is wrong that its “hazardous substance” definition is the “only possible reading of the statutory text.” EPA Br. 29. As just explained, EPA has itself proposed alternatives. Further, the text also supports a better reading.

“May” doesn’t always mean “possibility.” *Cf. Anglers Conservation Network v. Pritzker*, 809 F.3d 664, 671 (D.C. Cir. 2016) (“There are instances when ‘may’ has been taken to mean ‘must’”). As confirmed by the dictionary EPA cites (at EPA Br. 28), “may” was defined, at the time CERCLA was enacted, to express not just “possibility” (e.g., it may rain) but also to express “contingency, esp[ecially] in clauses expressing condition” (e.g., when I use an umbrella, I may remain dry). Random House Dictionary of the English Language (2d unabr. ed. 1987). *See also* The New Century Dictionary (1963) (same); Black’s Law Dictionary (5th ed. 1979) (similarly defining “may” as “expressing ... contingency”); Ballentine’s Law Dictionary (3d ed. 1969) (same as Black’s).

In Section 102, “may” is better read to express contingency. It exists in a “clause expressing condition”: a substance is “hazardous” if “when released into the environment” it “may present substantial danger.” 42 U.S.C. § 9602(a). In other

words, if the condition of release is satisfied, the result of “substantial danger to the public health or welfare or the environment” will be “actually existing” or “real.” Black’s Law Dictionary (5th ed. 1979) (“substantial”). *See also* Random House Dictionary of the English Language (2d unabr. ed. 1987) (defining “present” as “to show or exhibit”); The New Century Dictionary (1963) (same).

This definition accords with the plain text *and* avoids the other problems with EPA’s interpretation. Because this definition doesn’t extend to any “possibility” of harm, it is substantially more constrained. And it also sets a higher standard for “hazardous substances” than “pollutants or contaminants,” as CERCLA’s statutory structure demands. *See* Section I.B, *supra*. EPA suggests that no standard could be higher than the one expressly found in the definition of “pollutants or contaminants,” EPA Br. 33—i.e., “any substance that ‘*will or may reasonably be anticipated to cause death, disease,*’” and other identified health impacts. EPA Br. 33 (quoting 42 U.S.C. § 9601(33) (emphasis added)). But this alternative reading of “hazardous substance” standard *would* be higher than that, as it would include only substances

that *will* cause those impacts to be “actually existing” or “real,” should release occur.³

Of course, Petitioners need not prove that some other standard is correct and would have affected the outcome. The Final Rule is judged upon “the grounds upon which the agency acted.” *Food & Drug Admin. v. Wages & White Lion Invs., L.L.C.*, 145 S. Ct. 898, 928 (2025) (quoting *SEC v. Chenery Corp.*, 318 U.S. 80, 95 (1943)). EPA cannot correct its mistake now; it must apply a new standard in any future rulemaking. *See, e.g., Maine Lobstermen’s Ass’n v. Nat’l Marine Fisheries Serv.*, 70 F.4th 582, 600 (D.C. Cir. 2023) (rejecting agency’s argument that its outcome could still “stand up to scrutiny” under a corrected reading of governing statute) (citing *Chenery*, 318 U.S. at 87).

II. EPA’s evaluation of costs and benefits was fatally flawed.

EPA’s evaluation of costs and benefits was fatally flawed for four reasons: (A) EPA was required to consider costs; (B) EPA violated the APA by failing to

³ To the extent EPA suggests its interpretation is entitled to deference if “reasonabl[e],” *see* EPA Br. 37, that is incorrect under *Loper Bright*, 603 U.S. at 412-13. EPA also suggests that its reading is supported by the statute’s purpose, EPA Br. 2, 35, but purpose “cannot replace the actual text,” *Henson v. Santander Consumer USA Inc.*, 582 U.S. 79, 89 (2017).

subject the analysis to public comment; (C) EPA's analysis was arbitrary and capricious; and (D) EPA's analysis violated the Regulatory Flexibility Act (RFA).

A. EPA was required to consider costs.

EPA now concedes “there is no live dispute about whether Section 9602 requires consideration of costs” because “EPA assumed ... at the final-rule stage” that it does. EPA Br 39. That settles the issue. Indeed, EPA recently confirmed it “should take costs ... very seriously” under that section. September 2025 Announcement (JA __).

Intervenors cannot make an argument on an issue that EPA forfeited. Int. Br. 26–31. That violates the “bedrock principle” that courts must review “the grounds upon which the agency acted” at the time of the challenged action. *White Lion*, 145 S. Ct. at 928 (quoting *Chenery*, 318 U.S. at 95). It also violates the rule that “[i]ntervenors may only argue issues that have been raised by the principal parties.” *Nat’l Ass’n of Regul. Util. Comm’rs v. I.C.C.*, 41 F.3d 721, 729 (D.C. Cir. 1994).

Regardless, Intervenors are wrong. When designating a substance under Section 102(a), EPA must show (1) that the substance *is* hazardous (i.e., “may present substantial danger”); and (2) that designation would be “appropriate.”

Opening Br. 41-43. The second step—the decision to regulate—requires consideration of costs. *Id.*

Intervenors’ contrary arguments fail. When discussing *Michigan v. EPA*, 576 U.S. 743 (2015), Intervenors ignore that here, as in *Michigan*, the term “appropriate” applies to the decision of whether to regulate, Int. Br. 27-30. And in arguing that “appropriate” is modified by “may present substantial danger,” Intervenors ignore that these standards apply at different steps. *Id.* at 30. None of Intervenors’ cases help. *Id.* at 26-27, 30-31.⁴ Nor does CERCLA Section 121, which requires consideration of “short- and long-term costs” by themselves. Int. Br. 27; *see* 42 U.S.C. § 9621(a). That is narrower than Section 102(a), which uses the word “appropriate” to require consideration of such costs together with all other relevant factors. Opening Br. 42.

B. EPA violated the APA’s notice-and-comment requirement by failing to disclose its cost-benefit analysis with the Proposed Rule.

When EPA reversed its position on costs after the comment period, it surprised Petitioners with a new 300-page cost-benefit analysis. That violated

⁴ These cases involved materially different statutes, and *Michigan* teaches that context and wording matter. 576 U.S. at 752-53. In addition, all but one of the cases were decided before *Michigan*.

notice-and-comment requirements. Opening Br. 44-51. And it prejudiced Petitioners by preventing them from addressing numerous flaws. *Id.* at 49, 51-69.

1. EPA’s late disclosure violated the APA.

EPA violated the APA by failing to disclose for comment “an accurate picture of [its] reasoning.” Opening Br. 45 (quoting *Conn. Light & Power Co. v. NRC*, 673 F.2d 525, 530 (D.C. Cir. 1982)). After refusing to consider costs in the Proposed Rule, EPA relied in the Final Rule on a lengthy cost-benefit analysis, replete with new reasoning and quantitative estimates. Opening Br. 18-21. In doing so, “EPA shifted the Rule’s ‘primary justification.’” Nat’l Ass’n of Mfrs (NAM) Am. Br. 11 (citation omitted).

a. Remarkably, EPA suggests it didn’t need to disclose its reasoning because it ultimately “took the same action it had proposed”: designating PFOA and PFOS as hazardous substances. EPA Br. 50-51. That argument, if accepted, would eviscerate the critical-materials doctrine. *See, e.g., Ct. Light*, 673 F.2d at 530. Taken to its logical conclusion, it would allow agencies to proffer proposed rules with *no* reasoning, solicit guesses on what that reasoning might be, and then disclose the entirety of that reasoning in the final action. That would render “notice and comment rule-making ... an empty charade.” *Id.*

Contrary to EPA’s suggestion, the logical-outgrowth doctrine doesn’t create an exception to the critical-materials doctrine for rules that don’t change in ultimate result. EPA Br. 50. To be sure, the logical-outgrowth doctrine assesses whether a change in ultimate result violates notice-and-comment requirements. *Id.* But it also applies “when an agency switches the *justification* for a final rule.” NAM Am. Br. 7 (collecting cases). *See also Am. Pub. Gas Ass’n v. U.S. Dep’t of Energy*, 72 F.4th 1324, 1331, 1336-37 (D.C. Cir. 2023) (vacating, under the logical-outgrowth doctrine, a final rule that relied on “additional literature and new empirical evidence” even though the rule itself was “substantively equivalent” to what was proposed).

EPA’s logical-outgrowth cases don’t allow agencies to withhold important aspects of their reasoning, as EPA suggests. EPA Br. 50. The agencies in those cases merely failed to disclose confirmatory data, not new reasoning.⁵ That’s true in Intervenor’s cases too. Int. Br. 32-34.⁶ Indeed, many of these cases observed that

⁵ *See Bldg. Indus. Ass’n of Super. Cal. v. Norton*, 247 F.3d 1241, 1246 (D.C. Cir. 2001) (new study “confirmed the findings delineated in the proposal”); *Solite Corp. v. U.S. EPA*, 952 F.2d 473, 485 (D.C. Cir. 1991) (final rule “added data” that “was used to check or confirm prior assessments”).

⁶ *See City of Stoughton, Wis. v. EPA*, 858 F.2d 747, 752 (D.C. Cir. 1988) (new data “renewed” a prior factual finding); *Int’l Fabricare Inst. v. U.S. EPA*, 972 F.2d

the agency’s “methodology ... did *not* change significantly.” *Solite*, 952 F.2d at 485 (emphasis added). *See also Bldg. Indus. Ass’n*, 247 F.3d at 1246 (final “methodology” was “no surprise”); *Int’l Fabricare*, 972 F.2d at 399 (EPA “identif[ied] the methodology used ... at the outset”) (citation omitted).

b. EPA’s attempt to distinguish *Owner-Operator* is not convincing. EPA Br. 49 (discussing *Owner-Operator Indep. Drivers Ass’n, Inc. v. Fed. Motor Carrier Safety Admin.*, 494 F.3d 188 (D.C. Cir. 2007)). *Owner-Operator* found a notice-and-comment violation when the agency failed to disclose only one *component* of a cost-benefit analysis. Opening Br. 47-48. Here, EPA failed to disclose nearly the *entire* analysis. *Id.* In response, EPA says costs were more important in *Owner-Operator*, because the statute “expressly required” that they be considered. EPA Br. 49. But as EPA no longer disputes, Section 102(a) requires that too. Section II.A, *supra*.

c. EPA also erroneously suggests its conduct was permissible because it merely failed to disclose new quantitative estimates. EPA Br. 48-49. This is wrong for two reasons.

384, 399 (D.C. Cir. 1992) (new “studies” “confirmed the reliability” of the “methodology used”).

First, EPA’s violation extends far beyond quantitative estimates. As Petitioners explained, the Final Rule revealed new *reasoning* that was critical to the broader analysis. Opening Br. 53-61. That includes the assumption that there would be no new cleanups at NPL or federal sites, and the decision to count as benefits new cleanup costs incurred by PRPs. *Id.* These “conceptual characterization[s],” RIA 170 (JA __), revealed that when EPA weighed costs and benefits “qualitative[ly],” 89 Fed. Reg. at 39,125, it left some cleanup costs off the scale (at NPL and federal sites), *id.* at 39,153, 39,177 n.71, and placed others on the wrong side (at non-NPL sites), *id.* at 39,152.

Second, the surprise quantitative estimates *were* critical to EPA’s decision, contrary to EPA’s post-hoc assertion. *See* EPA Br. 48-49; Int. Br. 37-38. In the Final Rule, EPA found these estimates “instructive” as a “benchmark for assessing designation’s potential impact.” 89 Fed. Reg. at 39,177n.72. That’s why EPA spent 30 pages justifying them. RIA 153-65, 171-87 (JA __-__, JA__). *See also Chamber of Com. of U.S. v. SEC*, 443 F.3d 890, 894, 901-02 (D.C. Cir. 2006) (finding notice-and-comment violation where agency failed to disclose illustrative estimates that did “not ... estimate the aggregate cost”).

d. Finally, contrary to Intervenor's assertion, EPA's prior Economic Assessment did not give adequate notice of the agency's new analysis. Int. Br. 32 (citing EA 39-48 (JA__-__)). EPA wisely doesn't press this argument, as the Economic Assessment is hundreds of pages shorter than the RIA, and fails to include any of the new reasoning and cost estimates just discussed. *See supra* pp. 19-20. Agencies can tweak their reasoning without notice. Int. Br. 34. But they cannot introduce new reasoning and estimates that are both radically different and highly material, as EPA did here.

2. This violation was prejudicial.

To establish prejudice, petitioners need only "show they had something useful to say" about the late-disclosed material; a "credible argument." Opening Br. 50 (quoting *GPA Midstream*, 67 F.4th at 1198). Here, Petitioners have persuasive arguments that the new analysis was not just flawed, but arbitrary and capricious. Opening Br. 51-69; *infra* Section II.C. Those arguments are more than "credible."

These criticisms don't just repeat points from comment letters. EPA Br. 52, Int. Br. 35-36. The Proposed Rule didn't disclose how EPA would weigh costs at different sites, or provide any quantitative estimates, so Petitioners did not—indeed, could not—comment on any of that. While several commenters cited the Salvatore

and Chamber studies, Int. Br. 35, they had no opportunity to use the studies to critique EPA's new reasoning or estimates.

Intervenors' case law is inapposite. Int. Br. 36. To start, the standard in *United Steelworkers of Am., AFL-CIO-CLC v. Marshall*, 647 F.2d 1189, 1225 (D.C. Cir. 1980), is consistent with the "credible argument" standard in *GPA Midstream*, 67 F.4th at 1198-99. And *United Steelworkers* involved very different circumstances than those here. The agency there had rejected employers' complaints that a proposed lead-exposure limit was too low, adopting an even lower limit in the final rule. *United Steelworkers*, 647 F.2d at 1221, 1225. The employers' criticisms of the lower limit were the same as before. *Id.* at 1225. Here, Petitioners dispute new reasoning and cost estimates that fundamentally changed EPA's justification for the Final Rule. *U.S. Telecom* is also distinguishable, as the commenters there received "actual notice" of the new information during the comment period. *U.S. Telecom Ass'n v. FCC*, 825 F.3d 674, 726 (D.C. Cir. 2016). That didn't happen here.

C. The limited cost assessment that EPA did undertake was arbitrary and capricious.

Unsurprisingly, EPA's late-revealed analysis contains serious errors. Petitioners' credible criticisms of this analysis (alone or in combination) suffice to

establish prejudice from EPA's notice-and-comment violation. They also render the Final Rule arbitrary and capricious.

1. EPA's assessment of cleanup costs at NPL sites was arbitrary and capricious.

EPA underestimated cleanup costs imposed by the Final Rule at NPL sites by (a) assuming no new cleanups, and (b) miscalculating the so-called "transfer costs."

a. EPA erroneously reasons that the Final Rule will cause no new cleanups of PFOA/PFOS at NPL sites. Opening Br. 53. Instead, EPA says the Rule will merely transfer costs for cleanups that, even absent the Rule, would have occurred anyway under EPA's authority to clean up pollutants and contaminants. *Id.* That cannot be right. The Final Rule will cause new cleanups, and therefore new costs, because it removes two important barriers that apply to pollutants or contaminants: (1) the requirement that EPA show "imminent and substantial danger," *id.* at 53-54 (quoting 42 U.S.C. § 9604(a)), and (2) the requirement that EPA pay for these cleanups itself (by allowing cost-shifting to PRPs), *id.* at 54. Indeed, EPA admitted in the Final Rule that its "authority to address pollutants or contaminants is much more circumscribed," and touted the "[e]limination of those limitations" as "meaningful advantages." 89 Fed. Reg. at 39,127. Those "meaningful advantages" will allow for more cleanups.

EPA's responses are not persuasive. First, EPA claims the “imminent danger” requirement wasn't a real barrier, because EPA can “reasonably presume its ability to make [this] finding” wherever it needs to. EPA Br. 57. But when promulgating the Final Rule, EPA said that removing this “higher administrative burden” would allow “more removal actions to address PFOA and PFOS.” RIA 32 (JA __). *See also id.* at 87, 92 (JA __, __). Similarly, EPA claims when resisting vacatur that requiring an “imminent and substantial danger” finding would “substantially delay[]” its response actions. EPA Br. 69.

Second, EPA argues that the “risk sufficient to justify NPL listing would ... likely support [the] imminent-and-substantial danger finding” needed to clean up PFOA or PFOS in the absence of the Final Rule, EPA Br. 57, but “that runs counter to the evidence before” EPA, *Solondz v. FAA*, 141 F.4th 268, 276 (D.C. Cir. 2025) (citation omitted). In nearly all NPL sites, that risk came from *other* substances, not PFOA or PFOS. Although EPA has detected PFOA or PFOS at “approximately 400 NPL sites,” 89 Fed. Reg. at 39,178, there are currently only five listings “where either PFOA or PFOS contributed to NPL listing,” *id.* at 39,177 n.72.

Third, EPA doesn't dispute that shifting costs to PRPs will result in more cleanups of PFOA/PFOS at NPL sites. Opening Br. 54. Nor could it, because the

Final Rule expressly says that cost-shifting *will* lead to more cleanups.⁷ And for their part, Intervenors miss the point. They argue that transferring to PRPs costs that would otherwise be incurred by EPA is an “advantage” of designation. Int. Br. 39. But Petitioners are addressing a different problem—EPA’s underlying and illogical assumption that the Final Rule won’t create any *new* cleanups at NPL sites. Opening Br. 54.

b. Aside from ignoring new cleanup costs, EPA also underestimated the costs EPA claims it would have incurred at NPL sites anyway, but which will now be transferred to PRPs because of the Final Rule. To calculate these costs, EPA assumed that cleaning up PFOA and PFOS at these sites would add a “cost premium” of 2-10%. Opening Br. 55; NAM Am. Br. 16. But that estimate is arbitrarily low, and thus undervalues the impact of the rule on the private sector.

EPA doesn’t dispute that these figures were a blind guess, but suggests it had no choice, citing criticisms of the Chamber’s robust cost study. EPA Br. 59-60. Petitioners disagree with those critiques, but regardless, they don’t justify throwing

⁷ See 89 Fed. Reg. at 39,127 (admitting that “transferring costs of cleaning up PFOA and PFOS” will “allow[] EPA to address more releases earlier than it otherwise could absent designation”). See also *id.* at 39,151-53.

that study out completely—EPA could have at least used it as a benchmark, or to model an analysis of EPA’s own. A blind guess is not a “reasonable estimate,” as Intervenors suggest. Int. Br. 38 (quoting *Nat’l Wildlife Fed’n v. EPA*, 286 F.3d 554, 563 (D.C. Cir. 2002)).

2. EPA’s assessment of costs at non-NPL sites was arbitrary and capricious.

EPA’s assessment of cleanup costs at non-NPL sites was also arbitrary and capricious because it (a) characterizes certain costs as benefits and (b) miscalculates these purported benefits.

a. As Petitioners explained, the Final Rule bizarrely characterizes as *benefits* the cleanup costs at non-NPL sites that indisputably would not exist *but for* the rule. Opening Br. 56-57; NAM Am. Br. 18-19.⁸ EPA’s brief confirms as much. EPA Br. 65 (acknowledging that not all “costs borne by PRPs [under the Final Rule] are costs

⁸ *See also, e.g.*, 89 Fed. Reg. at 39,164 (“EPA views the cleanup monies spent by PRPs as an advantage of the rule.”); 39,160 (“For PRPs ... , imposing liability is appropriate and necessary”); 39,152 (“The payment of these costs by those responsible ... represents an improvement in social welfare as a result of the rule.”).

that would otherwise have come from the Superfund” and asserting that “when PRPs pay, the public benefits”).⁹

That makes no sense. It’s one thing to treat the *transfer* of costs to those responsible as a public benefit. For costs that would have been incurred by the government absent the Final Rule, the public arguably benefits from this transfer, as it reduces government spending. But it’s quite another thing to treat as a public benefit *new* costs imposed directly on PRPs. Whether having new cleanups is good

⁹ These are *new* costs because (1) before the Final Rule, EPA purportedly treated PFOA and PFOS as “pollutants or contaminants”; and (2) “pollutants or contaminants” cannot be cleaned up at non-NPL sites through remedial actions. EPA couldn’t force PRPs to conduct such cleanups. *See* 42 U.S.C. § 9606(a) (limiting EPA’s enforcement authority to “hazardous substances”). Nor could EPA conduct such cleanups itself. *See* 40 C.F.R. § 300.425(b)(1) (limiting EPA-funded remedial actions to NPL sites). The Final Rule, however, unlocked EPA’s enforcement authority. 42 U.S.C. § 9606(a). That now allows EPA to force PRPs to clean up PFOA and PFOS in remedial actions at non-NPL sites.

Granted, the Final Rule arguably could have transferred the costs of some shorter-term “removal” actions. Unlike remedial actions, EPA *can* conduct certain removal actions at non-NPL sites for pollutants and contaminants. *See* 42 U.S.C. § 9604. So without the Final Rule, EPA arguably could have cleaned up some PFOA and PFOS at non-NPL sites in that way. But remedial actions are far more expensive, often costing tens of millions of dollars. Opening Br. 10. That is why EPA estimated the costs of remedial actions, not removal actions, in the Final Rule. *See* RIA 159-65 (JA __-__). Accordingly, most costs imposed by the Final Rule at non-NPL sites are new.

or bad, the costs they impose are real and must be considered as what they are: *new costs*.

To justify its logic, EPA merely asserts that it reflects “Congress’s policy judgment.” *Id.* at 65. But Congress said no such thing. It said, at most, that the *transfer* of cleanup costs (from EPA to PRPs) is a benefit. EPA’s sources (at 65) don’t say otherwise. *See Atl. Richfield Co. v. Christian*, 590 U.S. 1, 6 (2020) (“The Act seeks ... to ensure that the costs of such cleanup efforts are borne by those responsible for the contamination.”); 42 U.S.C. §§ 9606, 9607, 9622(a) (imposing costs on PRPs rather than EPA). *See also* Int. Br. 39 (arguing that Congress deemed “the transfer of costs” to be “an advantage”). That is, where costs already exist and would otherwise be borne by the government, Congress arguably preferred that those costs be transferred to PRPs. In that circumstance, the *transfer* is arguably a public benefit.

But Congress never suggested that *costs*—and particularly those newly created by a rule—should simply be relabeled a “benefit.” Indeed, if that were

allowed, there would be no point in doing a cost-benefit analysis, as there would never be any costs.¹⁰

b. After erroneously deeming these new cleanup costs to be benefits, EPA then estimated them arbitrarily. Specifically, EPA considered only cleanups it would initiate through federal enforcement action, starting with a universe of 133 potential sites. Opening Br. 57-58. In the process, it ignored all investigations and cleanups that States and private parties will initiate due to the Final Rule. *Id.* See also States Am. Br. 19 (“Further, States often pursue the cleanup of sites that are not listed on the [NPL]”). As a result, EPA drastically underestimated cleanup costs at non-NPL sites, as supported by the Salvatore study. *Id.*

Neither EPA nor Intervenors offer a persuasive explanation for ignoring non-Federal cleanups. Intervenors argue that the Final Rule discussed these other cleanup costs “qualitatively.” Int. Br. 40-41 (citing RIA 67 n.81, 89, 159-60 (JA __ n.81, JA __, JA __-__)). But the Final Rule merely acknowledges that they exist. RIA 67 n.81, 89, 159-60 (JA __ n.81, JA __, JA __-__). It doesn’t grapple with the

¹⁰ Intervenors offer no real defense. Rather, they attack the hypothetical cost-benefit calculation in Petitioner’s brief (Opening Br. 57), claiming “EPA never actually performed” it. Int. Br. 40. That is what makes it a hypothetical, and it illustrates the absurdity of EPA’s logic, which Intervenors don’t defend.

magnitude of these costs (even roughly), or explain how these costs were being weighed. *Id.*

For its part, EPA offers no justification for ignoring cleanups initiated by others, but rather contests the magnitude of these cleanups by criticizing the Salvatore study. EPA Br. 61. These criticisms ring hollow. EPA itself relied on this study when deciding which industries would likely be affected by the Final Rule. Opening Br. 20; RIA 14-15 (JA___ - ___). And while EPA now complains that the study addressed PFAS more generally, EPA Br. 61, it asserted in the Final Rule that PFOA and PFOS were among the most prevalent forms of PFAS, *see* 89 Fed. Reg. at 39,126; RIA 12 (JA___). Even if the study's estimate were off by a considerable margin, it still illustrates that EPA's estimate was far too low.

3. EPA's decision to ignore cleanup costs at federal sites was arbitrary and capricious.

The Final Rule also arbitrarily ignored new cleanup costs at federal sites by assuming that federal agencies would address PFOA/PFOS to the same degree with or without the Final Rule. Opening Br. 60-61. EPA responds that, before the Final Rule, three federal agencies had already taken steps to address PFOA and PFOS. EPA Br. 10-11, 55-56. But EPA doesn't dispute that without the Final Rule, continuing to take these steps would be voluntary and occur on the agencies' own

timetable. Opening Br. 61-62. And these agencies will almost certainly go further than before, now that the Final Rule threatens them with liability for contaminated sites. *See* 42 U.S.C. § 9620(a)(1).

EPA also complains that Petitioners are subjecting the agency’s prediction to too demanding a standard. EPA Br. 55. But Petitioners aren’t demanding “total assurance.” *Id.* (citation omitted). Rather, Petitioners contend only that to support a categorical prediction that there will be *no* new costs at federal sites—despite obvious reasons for why there would be—EPA must offer more than mere speculation and reliance on facts not in the record. Opening Br. 61-62.

4. EPA ignored other significant costs imposed by the Final Rule.

The Final Rule will impose not just cleanup costs; it will also cause companies to alter operations to limit the risk of liability. For example, Petitioners warned in comments that solid waste landfills could spend up to \$8.2 billion decontaminating landfill leachate; water treatment plants could spend \$3.6 billion incinerating liquid sludges; and the paper industry could spend up to \$766 million adopting EPA’s recommended waste-management methods. Opening Br. 63-64 (discussing comments from NWRA, the Chamber, AWWA, and AF&PA). The construction and recycling industries similarly warned of enormous operational costs, including

higher disposal fees and costs required to test for PFOA and PFOS in soil, fill, and groundwater. *Id.* at 65-68. EPA expressly disregarded these costs, and more, as not fairly attributable to the Final Rule. *Id.* Yet at the same time, EPA considered the *benefits* from these operational changes—including improved waste-management practices—when promulgating the Final Rule. *Id.* at 64-65. That was arbitrary and capricious.

In its brief, EPA doesn't dispute that these operational changes will impose enormous costs. Instead, it continues to claim that the changes aren't "fairly attributable" to the Final Rule, because they aren't "require[d]." EPA Br. 62-63. That is not convincing. The Final Rule designates as hazardous what are purportedly widespread substances, Opening Br. 12-13, and threatens serious liability against anyone who owns or operates contaminated land, or who arranged for "the transport, treatment, or disposal" of PFOA/PFOS, *id.* at 7-10. As a result, it is both predictable and justified for private parties, including the "relatively narrow set of industries" that EPA has targeted for enforcement, *id.* at 27-28, to make costly changes that limit their risk of liability. As EPA recently acknowledged, it "should take costs to manufacturers, passive receivers, consumers, and the economy at large very

seriously.” September 2025 Announcement (JA ____). The Final Rule, however, simply ignored much of these costs, turning a blind eye to the rule’s consequences.

Further, EPA concedes that the Final Rule relied on the *benefits* of this activity without weighing the attendant costs, but claims Petitioners are making a “mountain out of a molehill.” EPA Br. 63-64. They are not. For example, the rule repeatedly relies on the benefits of improved waste-management practices, explaining that they will lead to fewer releases, RIA 116 (JA ____), that CERCLA is designed to encourage them, RIA 153 (JA ____), and that they are a “direct benefit[]” of designation, RIA 151 (JA ____).¹¹ If the benefits are “fairly attributable” to the rule, so too are the costs. EPA Br. 62-64.

Intervenors’ arguments are no more successful. To start, *Cigar Association of America v. United States Food & Drug Administration*, 5 F.4th 68, 73 (D.C. Cir. 2021) is inapposite. Int. Br. 41. The agency there *did* consider, as part of a broader

¹¹ See also RIA 7 (JA ____) (weighing “improved handling, storage, transportation, and waste management and treatment practices” as “deferred benefits”); RIA 25 (JA ____) (same); RIA 150 (JA ____) (same); RIA 277 (JA ____) (“Incentivizing the prevention of releases is expected to decrease or ... eliminate risks to public health and welfare and the environment.”); 89 Fed. Reg. at 39,152 (“Designation also signals to the market that there is value in the prevention of releases and mitigation of existing releases.”).

analysis, the costs to particular industries. 5 F.4th at 347. It merely declined to present its findings in a “particular form” by breaking out the costs to these industries separately. *Id.* By contrast, EPA did *not* consider the relevant costs at all. EPA Br. 62-64.

In addition, EPA’s continued failure to provide a “reasoned response” to Petitioners’ comments on these significant economic impacts was arbitrary and capricious. Opening Br. 63 (quoting *Ohio v. EPA*, 603 U.S. 279, 280 (2024)). Intervenors claim that this failure matters only when it shows that “the agency’s decision was not based on a consideration of the relevant factors.” Int. Br. 42 (citation omitted). But costs *are* a relevant factor, as Petitioners explained and as EPA no longer disputes. *See supra* Section II.A.

5. EPA’s assessment of benefits was arbitrary and capricious.

Finally, EPA and Intervenors do not respond to Petitioners’ argument that the Final Rule’s assessment of benefits was arbitrary and capricious. As explained, the Final Rule erroneously treated certain cleanup costs borne by PRPs as benefits. *See supra* Section II.C.2. To do so, EPA not only underestimated costs, but also overestimated benefits. *Id.* EPA also failed to consider less costly means for achieving the purported health benefits of the Final Rule. Opening Br. 68-69.

D. EPA compounded these errors by violating the Regulatory Flexibility Act.

EPA violated the RFA by mistakenly concluding that the Final Rule would have no “significant impact” on regulated small entities. In doing so, EPA considered only the “direct” costs of reporting while ignoring the far greater “indirect” costs of preventative operational changes and cleanup. Opening Br. 69-71; *see also* Passive Receivers Am. Br. 22-25. That was wrong. As *Mid-Tex* makes clear, these costs are “direct” and must be considered. *Id.* (discussing *Mid-Tex Elec. Co-op., Inc. v. FERC*, 773 F.2d 327, 342 (D.C. Cir. 1985)).

EPA’s responses are unpersuasive. It first claims an impact is “direct” only if it is “require[d]” by the Final Rule, rather than “discretionary and contingent upon” further action, quoting its own guidance. EPA Br. 66-67. But that guidance says an impact is “direct” *even if* contingent upon “some action” (there, by “EPA or States”). EPA, *Final Guidance for EPA Rulewriters: Regulatory Flexibility Act*, 13 (2006), available at <https://www.epa.gov/sites/default/files/2015-06/documents/guidance-regflexact.pdf>. Similarly, EPA acknowledges in the Final Rule that impacts on “federal-property transfers” are “direct,” even though they depend on the government’s discretionary decision to sell or transfer land. EPA Br. 66 n.13.

EPA then says that under *Mid-Tex*, agencies must only consider “‘uniform’ ‘costs of compliance.’” EPA Br. 67 (quoting 773 F.3d at 343). And, EPA argues, cleanup costs under CERCLA are “site-specific.” *Id.* But that misreads *Mid-Tex*, which speaks of “uniform *regulations*,” not uniform costs of compliance. 773 F.2d at 343 (emphasis added). It doesn’t allow agencies to ignore “costs of compliance” that vary from site to site.

Intervenors’ cases and arguments fare no better. Int. Br. 42-44. The statement in *Florida Bankers* was dicta; the small entities in *American Trucking* were “not subject to the proposed regulation”; and *Weltover* interpreted a different statute.¹² And Intervenors’ argument that “attenuated or speculative” impacts need not be considered under the RFA, Int. Br. 43, is beside the point. The costs at issue here are a direct consequence of the Final Rule. Small entities immediately began changing their operations to avoid liability; some will inevitably face cleanup costs in the future. *See* Opening Br. 26-30, 63-68.

¹² *See Fla. Bankers Ass’n v. Dep’t of Treasury*, 19 F. Supp. 3d 111, 126 (D.D.C. 2014), *vacated on other grounds*, 799 F.3d 1065 (D.C. Cir. 2015)); *Am. Trucking Ass’ns v. EPA*, 175 F.3d 1027, 1044 (D.C. Cir. 1999) (per curiam), *modified on reh’g on other grounds*, 195 F.3d 4 (D.C. Cir. 1999), and *aff’d in part, rev’d in part on other grounds sub nom. Whitman v. Am. Trucking Associations*, 531 U.S. 457 (2001); *Republic of Arg. v. Weltover*, 504 U.S. 607, 618 (1992).

III. EPA’s decision to designate PFOA and PFOS without assessing and understanding the widespread consequences was arbitrary and capricious.

The Final Rule is arbitrary and capricious for one final reason—it threatens severe consequences with unacceptable uncertainty concerning (1) where these substances are located, and in what quantities; (2) what economic costs the Final Rule will impose, and how parties will address contamination; and (3) the unintended consequences of the designation. Opening Br. 71-78.

EPA embraces these uncertainties when defending its cost-benefit analysis, claiming that more reasoned predictions were “impossible.” EPA Br. 40. That isn’t true—EPA acted unreasonably with the information it had. *See supra* Section II.C. Moreover, if uncertainty prevented EPA from even vaguely understanding the consequences of its actions, then EPA should have worked to resolve that uncertainty before plowing ahead.

EPA doesn’t dispute that these uncertainties are enormous. EPA Br. 45. *See also* Int. Br. 46-47. But it claims they’re acceptable because the Final Rule does not itself trigger any cleanups. EPA Br. 43. *See also id.* at 35 (“[T]he powers conferred under Section 9602 are modest.”); Int. Br. 45, 47. In EPA’s view, designation is just “a threshold step.” EPA Br. 2, 40. *See also* Int. Br. 38.

This “threshold step,” however, has serious and inevitable repercussions. It sets in motion a process that can end with cleanups costing tens of millions of dollars. Opening Br. 10. EPA can’t control this process through its own enforcement discretion, either. EPA Br. 43-44. “[P]rivate parties, States, and local governments” can initiate investigations and cleanups on their own. Opening Br. 8. *See also* States Am. Br. 18-25. For private parties, these actions can arise following the transfer of property to a new owner whether or not a State or EPA determines a cleanup is warranted. Opening Br. 76-77. Facing this new threat of liability, industries are projected to incur enormous costs responding to the Final Rule. *Id.* at 27-29, 63-68.

EPA also suggests that no amount of uncertainty could render an agency’s action arbitrary and capricious. *See* EPA Br. 45, Int. Br. 46-47. But “at some point, action infected by enough uncertainty cannot be called reasoned.” *Biological Diversity*, 749 F.3d at 1090. True, *Biological Diversity* also said that “[d]istinguishing among these degrees [of uncertainty] is emphatically the province of EPA.” Int. Br. 46 (quoting 749 F.3d at 1090)). But that was addressing the agency’s decision “*not* to promulgate a new rule.” 749 F.3d at 1089 (emphasis added). *Acting* in the face of massive uncertainties can be arbitrary and capricious,

id. at 1090, particularly when the consequences are as significant as here, and when the agency failed to take reasonable steps to reduce the uncertainties.

EPA’s denial of unintended consequences fares no better. EPA Br. 45-46; Int. Br. 48-49. The Final Rule will complicate real-estate transactions by requiring additional environmental studies—studies that EPA itself recommends, but then ignores as a consequence of the Final Rule. Opening Br. 76-77. This is more than a “possibility,” EPA Br. 45-46; it is a direct and predictable result of the rule. Even Intervenors acknowledge (at 49) that the Final Rule could “increase the number or expand the scope” of these studies. And the Final Rule will disrupt existing cleanups too. Opening Br. 75-76; Superfund Settlement Projects Am. Br. 15-17. EPA responds that because PFOA and PFOS [were] already considered CERCLA pollutants or contaminants,” the Final Rule will “not result in any change” to EPA’s behavior. EPA Br. 46. This isn’t plausible, as explained. Opening Br. 53-54. *See also supra* Section II.C.2.

IV. The proper remedy is vacatur.

The violations above, alone or combined, warrant the “normal remedy” of vacatur. Opening Br. 78 (citation omitted). These violations were each

independently serious, and leaving the rule in place would be far more disruptive than vacating it. *Id.* at 78-79.

EPA's contrary arguments are not compelling. EPA Br. 68-69. EPA's errors in assessing costs go far beyond "quantitative estimates," *id.* at 68, and anyway, those estimates were critical, *see supra* Section II.C. Further, EPA doesn't dispute that misinterpreting a key statutory term, or plowing ahead despite unacceptable uncertainty, are serious errors. And EPA's own case (*see id.* at 68) recognizes that a notice-and-comment violation "is a fundamental flaw that normally requires vacatur." *Heartland Reg'l Med. Ctr. v. Sebelius*, 566 F.3d 193, 199 (D.C. Cir. 2009). So *all* of EPA's errors are more serious than a "failure to explain an otherwise permissible rule," as EPA suggests. EPA Br. 68 (quoting *Heartland*, 566 F.3d at 199).

Vacatur wouldn't have disruptive consequences, either. To start, *Wisconsin* is inapposite. EPA Br. 68-69 (discussing *Wisconsin v. EPA*, 938 F.3d 303, 31 (D.C. Cir. 2019)). There, the court invalidated a rule for allowing too much pollution, and remanded to the agency to develop a new standard that would allow less. Vacating that rule (and allowing yet more pollution) would have made no sense. *Wisconsin*, 938 F.3d at 318. EPA also claims that vacatur would disrupt ongoing response

actions, EPA Br. 69, but provides no evidence of that. Regardless, any claims of disruption are overstated, given EPA's other more targeted means of addressing PFOA and PFOS using other authorities. Opening Br. 79.

CONCLUSION

For the foregoing reasons and those explained in Petitioners' opening brief, this Court should vacate the Final Rule.

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Respectfully submitted,

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CERTIFICATE OF COMPLIANCE

Pursuant to Rule 32(g), I certify that this brief:

(i) complies with the type-volume limitation established by this Court because it contains 8,464 words, including footnotes and excluding the parts of the brief exempted by Rule 32(f) and Circuit Rule 32(e)(1); and

(ii) complies with the typeface requirements of Rule 32(a)(5) and the type style requirements of Rule 32(a)(6) because it has been prepared using Microsoft Office Word 2016 and is typeset in Times New Roman in font size 14.

Dated: November 14, 2025

/s/ Elbert Lin

CERTIFICATE OF SERVICE

I hereby certify that, on November 14, 2025, I electronically filed the foregoing brief with the Clerk of the Court using the appellate CM/ECF system, which served copies of the brief via on all ECF-registered counsel.

Dated: November 14, 2025

/s/ Elbert Lin