[ORAL ARGUMENT NOT YET SCHEDULED]

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 MICHAEL S. REGAN, 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)

OPENING BRIEF FOR PETITIONERS

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CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES

Pursuant to D.C. Circuit Rule 28(a)(1), Petitioners Chamber of Commerce of the United States of America, Associated General Contractors of America, Inc., National Waste & Recycling Association, Institute of Scrap Recycling Industries, Inc., doing business as the Recycled Materials Association, American Forest & Paper Association, American Chemistry Council, and American Fuel & Petrochemical Manufacturers hereby certify the following as to the parties, rulings, and related proceedings in this case:

I. Parties and amici

Petitioners are the Chamber of Commerce of the United States of America (Chamber), Associated General Contractors of America, Inc. (AGC), National Waste & Recycling Association (NWRA), Institute of Scrap Recycling Industries, doing business as the Recycled Materials Association (ReMA), American Forest & Paper Association (AF&PA), American Chemistry Council (ACC), and American Fuel & Petrochemical Manufacturers (AFPM).

Respondents are the United States Environmental Protection Agency (EPA) and Michael S. Regan, in his official capacity as Administrator, United States Environmental Protection Agency.

Intervenors in support of Respondents are Clean Cape Fear, Environmental Justice Task Force, Fight for Zero, Merrimack Citizens for Clean Water, and Natural Resources Defense Council.

No other parties have appeared in this Court, and there were no proceedings in any district court. *See* Fed. R. Civ. P. 15(a), D.C. Cir. Rule 15(a).

II. Ruling under review

The ruling under review is EPA's Final Rule entitled "Designation of Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonic Acid (PFOS) as CERCLA Hazardous Substances," 89 Fed. Reg. 39,124 (May 8, 2024).

III. Related cases

This case has not previously been before this Court or any other court. There are no "other related cases" as defined by Local Rule 28(a)(1)(C).

CORPORATE DISCLOSURE STATEMENT

Pursuant to Federal Rule of Appellate Procedure 26.1 and D.C. Circuit Rule 26.1, the Chamber of Commerce of the United States of America (Chamber) states that its general nature and purpose is to operate as the world's largest business federation. It represents approximately 300,000 direct members and indirectly represents the interests of more than 3 million companies and professional organizations of every size, in every industry sector, and from every region of the country. An important function of the Chamber is to represent the interests of its members in matters before Congress, the Executive Branch, and the courts.

The Chamber states that it is a non-profit, tax-exempt organization incorporated in the District of Columbia. The Chamber has no parent corporation, and no publicly held company has 10% or greater ownership in the Chamber.

The Associated General Contractors of America, Inc. (AGC) states that its general nature and purpose is to operate as the nation's largest and most diverse trade association in the commercial construction industry, now representing more than 28,000 member companies that include general contractors, specialty contractors, and service providers and suppliers to the industry through a nationwide network of chapters in all 50 states, the District of Columbia, and Puerto Rico. AGC members are engaged in building, heavy, civil, industrial, utility, and other construction for

both public and private property owners and developers. AGC works to ensure the continued success of the commercial construction industry by advocating for federal, state, and local measures that support the industry; providing education and training for member firms; and connecting member firms with resources needed to be successful businesses and responsible corporate citizens. AGC represents the interest of its members in matters before Congress, the Executive Branch and the courts.

AGC states that it is registered as a 501(c)(6) organization. AGC has no parent corporation, but it does have two subsidiary corporations, Project Modeling, LLC and ConsensusDocs, LLC. No publicly traded company owns 10% or more of AGC or 10% or more of AGC's subsidiaries.

The National Waste & Recycling Association (NWRA) states that its general nature and purpose is to operate as a trade association representing the private sector recycling and waste industry. NWRA members operate in all fifty states and the District of Columbia. NWRA represents the interests of its members in matters before Congress, the Executive Branch, and the courts.

NWRA states that it is a non-profit, tax-exempt organization incorporated in the State of Illinois. NWRA has no parent corporation, and no publicly held company has 10% or greater ownership in the NWRA.

The Institute of Scrap Recycling Industries, Inc., doing business as the Recycled Materials Association, (ReMA) states that it is a trade association representing over 1,400 companies employing over 500,000 people engaged in the recycled industry in the United States (contributing over $117 billion annually to the U.S. economy), as well as around the globe, that process, broker, and consume over 130 million tons of recycled materials annually, including metals, vehicles (approximately 15 million annually), appliances, paper, plastics, glass, electronics, and textiles. ReMA advocates for environmentally responsible and economically sustainable recycling, which is a critical first link in the manufacturing value chain that decreases the need to deplete natural resources or rely on foreign sources for valuable raw materials necessary to a broad range of industrial and consumer economic sectors. ReMA states that it is a non-profit, tax-exempt organization incorporated in Delaware. ReMA has no parent corporation and no publicly held company has 10% or greater ownership in ReMA.

The American Forest and Paper Association (AF&PA) states that it serves to advance U.S. paper and wood products manufacturers through fact-based public policy and marketplace advocacy. The forest products industry is circular by nature. AF&PA member companies make essential products from renewable and recyclable resources, generate renewable bioenergy and are committed to continuous

improvement through the industry's sustainability initiative — Better Practices, Better Planet 2030: Sustainable Products for a Sustainable Future. The forest products industry accounts for approximately 5% of the total U.S. manufacturing GDP, manufactures about $350 billion in products annually and employs about 925,000 people. The industry meets a payroll of about $65 billion annually and is among the top 10 manufacturing sector employers in 43 states. No parent corporation or publicly held company has a 10% or greater ownership interest in AF&PA.

The American Chemistry Council (ACC) states that it represents the leading companies engaged in the business of chemistry. ACC members apply the science of chemistry to make innovative products and services that make people's lives better, healthier and safer. ACC is committed to improved environmental, health and safety performance through Responsible Care®; common sense advocacy designed to address major public policy issues; and health and environmental research and product testing. The business of chemistry is a $633 billion enterprise and a key element of the nation's economy. It is among the largest exporters in the nation, accounting for ten percent of all U.S. goods exported. ACC states that it is a "trade association" for purposes of Circuit Rule 26.1(b). ACC has no parent corporation, and no publicly held company has 10 percent or greater ownership in

ACC.

The American Fuel & Petrochemical Manufacturers (AFPM) states that it is a national trade association whose members comprise most U.S. refining and petrochemical manufacturing capacity. AFPM has no parent companies, and no publicly held company has a 10% or greater ownership interest in AFPM. AFPM is a "trade association" under Circuit Rule 26.1 and operates for the purpose of promoting the general commercial, professional, legislative, or other interests of its members.

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GLOSSARY OF ACRONYMS AND ABBREVIATIONS

CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
EA	Economic Assessment
NCP	National Contingency Plan
NDAA	National Defense Authorization Act
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

This lawsuit challenges a first-of-its-kind rule from the Environmental Protection Agency meant to address the potential environmental impact of per- and polyfluoroalkyl substances (PFAS). In promulgating it, EPA has dusted off a provision of one of the most onerous environmental statutes—the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)—that has never been used in the 40 years since the statute was enacted.

CERCLA allows EPA, State governments, and even private parties to hold others liable for environmental contamination caused by "hazardous substances." Cleaning up this contamination often costs tens of millions of dollars and takes decades. Liability is strict, and generally joint and several. Many courts have concluded that liability is retroactive. And liability can attach to anyone who owns (or has owned) contaminated land, or anyone who arranged for the disposal of the hazardous substances, even if they didn't know these substances were present.

The specific substances at issue are perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS), two members of the broader class of PFAS. These man-made chemicals repel water, oils, and other substances, which resulted in their widespread use in both industry and consumer products starting in the 1940s,

including in life-saving fire-fighting foams, medical devices, and semiconductors. PFOA and PFOS are no longer domestically manufactured in large quantities, but their heavy production for more than half a century, combined with their ability to resist degradation in the environment, means that, according to EPA, they can now be found almost anywhere.

In this first-of-its-kind rule, EPA designates PFOA and PFOS as "hazardous substances" under CERCLA, unleashing the statute's full suite of authorities to require costly cleanups wherever those substances are found, even at extremely low levels. In the past, EPA has added to CERCLA's coverage through different statutes—designating substances as hazardous or toxic under other environmental laws, which designations CERCLA then incorporates by reference. But now, for the first time, EPA exercises its authority under CERCLA Section 102:

> The Administrator shall promulgate and revise as may be appropriate, regulations designating as hazardous substances . . . substances which, when released into the environment, may present substantial danger to the public health or welfare or the environment . . . .

42 U.S.C. § 9602(a).

EPA committed several errors when designating these substances. For example, EPA misinterprets the standard for deeming a substance "hazardous"—whether it "may present substantial danger." EPA concludes that *any* "possibility"

of "substantial danger" is sufficient to satisfy the standard. And EPA will decide whether this possibility exists by weighing a non-exhaustive list of factors in an unknown manner. This allows EPA unbridled discretion to designate substances without manageable, predictable, or reviewable criteria. And the way EPA applies that standard to PFOA and PFOS—concluding that a mere "association" between these substances and "adverse health effects" can suffice—only confirms as much.

Even worse, EPA failed to adequately consider the enormous costs of its novel rule. In fact, EPA originally said it was *prohibited* from considering these costs. Instead, EPA said it could consider only the hazardous nature of a substance, without regard to the costs. But after many commenters objected, EPA backtracked in the Final Rule. It conceded that it might need to consider costs, though refused to decide for sure. Then, in an attempt to cover its bases, EPA ran two analyses—one that didn't consider cost, and an entirely new alternative one that did—and concluded that designation was warranted either way.

To support its new alternative analysis (claiming designation was warranted even when considering costs), EPA released a new 300-page cost-benefit analysis the public had never seen. Of course, EPA had given no notice of this analysis, and commenters had no opportunity to raise any concerns. Perhaps unsurprisingly, that

cost analysis is fundamentally flawed. It ignores some categories of cost, drastically underestimates others, and mistakes significant costs as *benefits*.

This Court must vacate the Final Rule for multiple, independent reasons. First, as a threshold matter, EPA misinterprets the term "may present substantial danger" to contain no meaningful limits. Second, EPA *was* required to consider costs, and that analysis was improper in multiple respects. For one thing, EPA failed to provide notice and comment for most of its cost-benefit analysis. For another, that cost-benefit analysis contained serious errors, rendering it arbitrary and capricious. Third, EPA's decision to unleash CERCLA wherever PFOA and PFOS are present, while understanding so little about the consequences of doing so, was the definition of arbitrary-and-capricious decision-making.

For these reasons, this Court should vacate the Final Rule.

JURISDICTION

This Court has jurisdiction pursuant to 42 U.S.C. § 9613(a). Venue is also appropriate pursuant to 42 U.S.C. § 9613(a). Petitioners timely filed petitions for review on June 10, 2024 (Chamber, AGC, NWRA), July 30, 2024 (ReMa), August 2, 2024 (AF&PA), and August 5 (ACC, AFPM).

STATEMENT OF ISSUES

1. Did EPA misinterpret the term "may present substantial danger"?

2. Did EPA fail to provide adequate notice and comment on a new cost-benefit analysis it introduced for the first time in the Final Rule?

3. Did EPA fail to adequately consider the costs of the Final Rule?

4. Did EPA act arbitrarily and capriciously in promulgating the Final Rule without sufficiently understanding the consequences?

STATUTES AND REGULATIONS

Relevant statutes and regulations appear in the Addendum.

STATEMENT OF THE CASE

A. Congress enacts CERCLA, imposing broad liability for hazardous substances.

In 1980, Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), colloquially known as "Superfund."[1] 42 U.S.C. § 9601 et. seq. CERCLA allows EPA to address "releases" of certain

[1] CERCLA established the "Superfund," or Hazardous Substances Response Trust, which EPA uses to clean up environmental contamination. The Superfund is funded by general appropriations and special taxes on the petroleum and chemical industries. *See United States v. Ne. Pharm. & Chem Co.*, 810 F.2d 726, 731 n.2 (8th Cir. 1986).

substances, 42 U.S.C. § 9604, including "any spilling," "leaking," "leaching," or "disposing" of that substance "into the environment," *id.* § 9601. CERCLA divides covered substances into two categories: "hazardous substances" and "pollutants or contaminants." 42 U.S.C. §§ 9601(14); 9601(33).

1. CERCLA authorizes EPA to designate hazardous substances.

Substances can be designated "hazardous" under CERCLA in several ways. First, Congress or EPA can designate substances as toxic or hazardous pursuant to other environmental statutes, provided they satisfy those other statutes' requirements. 42 U.S.C. § 9601(14).[2] These substances then become "hazardous" under CERCLA. *Id.*

Second, EPA can designate a substance under CERCLA directly. 42 U.S.C. § 9602(a). Under Section 102, EPA may designate, "as may be appropriate," substances that "when released into the environment may present substantial danger to the public health or welfare or the environment." 42 U.S.C. § 9602(a).

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[2] *Compare, e.g.,* 15 U.S.C. § 2606(f) (Section 7 of the Toxic Substances Control Act, requiring "an imminent and unreasonable risk of serious or widespread injury to health or the environment") *with* 42 U.S.C. § 9601(14) (incorporating 15 U.S.C. § 2606(f) by reference).

2. CERCLA grants EPA and others broad authority to clean up releases of hazardous substances.

Once a substance is designated as "hazardous" (either through other statutes or Section 102), CERCLA grants EPA, other federal agencies, and private parties broad authority to clean up releases of that substance, or order others to do so. That authority can be exercised in several ways.

First, EPA can clean up such releases itself with money from the "Superfund." 42 U.S.C. § 9604(a). These "response actions" include both "short-term" or emergency "removal" actions, and more expensive, longer-term "remedial" actions. Designation of Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonic Acid (PFOS) as CERCLA Hazardous Substances, 89 Fed. Reg. 39,124, 39,137 (May 8, 2024) (Final Rule); 42 U.S.C. §§ 9601(23), 9601(25). To fund a longer-term "remedial" action, EPA must first add the site to the National Priorities List (NPL). 89 Fed. Reg. at 39,138.[3]

EPA can then seek reimbursement of response costs from "several classes" of potentially responsible parties (PRPs). *Gen. Elec. Co. v. Jackson*, 610 F.3d 110, 114

[3] CERCLA requires EPA to identify on the NPL those contaminated sites that most urgently require remediation. *See* 42 U.S.C. § 9605(a)(8).

(D.C. Cir. 2010) (citing 42 U.S.C. § 9607). These include anyone who currently owns a contaminated site (or owned that site at the time of release), and—even more broadly—"parties that 'arrange[] for' the transport, treatment, or disposal of hazardous substances." *Id.* (quoting 42 U.S.C. § 9607).

Second, EPA can force PRPs to clean up a hazardous substance themselves.[4] EPA can issue unilateral administrative orders or obtain orders from a federal court. 42 U.S.C. § 9606(a). Alternatively, EPA can pressure PRPs to enter settlement agreements that require PRPs to conduct cleanups. *Id.* § 9622.

Finally, other parties—including private parties, States, and local governments—can voluntarily clean up a hazardous substance and seek reimbursement from PRPs. 42 U.S.C. §§ 9607(a)(4)(A), 9607(a)(4)(B). This can occur without any involvement from EPA.

In contrast to "hazardous substances," EPA's authority to address "pollutants or contaminants" is more limited. EPA can clean up these substances itself only if

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[4] "Although a court is the final arbiter of whether a party is liable under CERCLA section 107," 89 Fed. Reg. at 39168 n.64, CERCLA authorizes EPA to require parties whose liability has yet to be judicially determined (i.e., "potentially responsible parties" or PRPs) to engage in cleanup activities, *see Gen. Elec.*, 610 F.3d at 115.

they present an "imminent and substantial danger." 42 U.S.C. § 9604(a). EPA generally cannot recover costs from PRPs, or order PRPs to clean up "pollutants and contaminants." *See* 42 U.S.C. §§ 9606(a), 9607(a). And if third parties clean up such substances, they cannot seek reimbursement from others. *See* 42 U.S.C. § 9607(a)(4)(B).

3. Liability under CERCLA is harsh.

CERCLA imposes "strict liability" on PRPs. *Burlington N. & Santa Fe Ry. Co. v. United States*, 556 U.S. 599, 608 (2009). No showing of fault is necessary. PRPs need not contribute to the contamination or even know it occurred.

Liability can also be joint and several. A PRP may be liable for the entire cost of a contaminated site, regardless of how little that PRP has contributed in comparison to others (unless it can somehow "apportion[]" the harm from its own contribution). *Burlington*, 556 U.S. at 613–14. For that reason, significant liability can attach "for even minimal amounts of pollution." *United States v. Alcan Alum. Corp.*, 990 F.2d 711, 720 (2d Cir. 1993).

Finally, "many courts" have held that CERCLA imposes retroactive liability. *United States v. Monsanto Co.*, 858 F.2d 160, 174 (4th Cir. 1988) (collecting cases).

That means PRPs can be liable for conduct that occurred prior to a substance being designated "hazardous."

Liability for cleanup costs can be enormous. Remedial actions can last decades. U.S. Chamber of Commerce, PFOS and PFOS Cleanup Costs at Non-Federal Superfund Sites (June 2022) at 4, EPA-HQ-OLEM-2019-341-405 (Nov. 9, 2022) (Chamber Cost Study), JA __–__. In one study cited by EPA, costs averaged between $35.2 and $48.2 million per NPL site (as of 2019). Economic Assessment (EA) 50, JA __. For PFOA and PFOS, EPA assumes that cleanups will continue for at least the next 77 years. *See* Regulatory Impact Analysis (RIA) at 153–54, JA __–__.

B. EPA discarded an interpretation that would have established defined criteria for designating hazardous substances and also considered costs.

Shortly after CERCLA was enacted, EPA issued an Advance Notice of Proposed Rulemaking seeking comment on how to designate "hazardous substances" under Section 102. *Designation of Additional Hazardous Substances*, 48 Fed. Reg. 23,602-05 (May 25, 1983) (1983 Notice). EPA proposed "four alternative sets of criteria" for satisfying the statutory standard "may present substantial danger." *Id.* at 23,604.

All four tests would have established specific quantitative thresholds. Three would have "establish[ed] a critical value" for specified factors, such as "aquatic toxicity" and "carcinogenicity." *Id.* If a substance exceeded the "critical value" for any factor, then it "may present substantial danger." *Id.* The fourth test would have applied a "scoring system" to enumerated "rating factors," used an "equation . . . to combine these several factors into a single number," and established a "cutoff point." *Id.*

EPA also proposed to carefully consider costs. It acknowledged that "[t]he consequences of designation can be substantial," *id.* at 23,602–03, including because "any person responsible for a release of hazardous substances may be liable for: (A) All costs of removal . . . ; (B) Any other necessary costs of response . . . ; and (C) Damages for injury to . . . natural resources." *Id.* Accordingly, EPA proposed "to carefully consider these economic impacts." *Id.*

But EPA did not move forward with this rulemaking. And Section 102 lay dormant for the next 40 years. EPA never offered any other construction of "hazardous substance," nor did it designate any "hazardous substance" under Section 102.

C. EPA proposes to designate PFOA and PFOS as CERCLA hazardous substances.

In September 2022, EPA proposed to exercise its authority under Section 102 for the first time. *Designation of Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonic Acid (PFOS) as CERCLA Hazardous Substances*, 87 Fed. Reg. 54,415-42 (Sept. 6, 2022) (Proposed Rule).

The Proposed Rule targeted PFOA and PFOS: man-made chemicals used in "industry and in consumer products since the 1940's." *Id.* at 54,418.[5] These chemicals have "useful properties, including their resistance, to water, grease, and stains," and therefore were used in "a variety of manufactured goods" and "industrial applications," including food packaging, firefighting foam, and electronics. *Id.* at 54,418–19.

According to EPA, PFOA and PFOS "remain in the environment for long periods of time." 89 Fed. Reg. at 39,147. EPA states that they are "prevalent in the environment," including "surface water, groundwater, soil, and air." *Id.* at 39,126. According to one study cited by EPA, there are "57,412 sites of presumptive

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[5] When used in this brief, "PFOA and PFOS" also refers to the chemicals' "salts and structural isomers," which are also covered by the Final Rule. 87 Fed. Reg. at 54,417 & n.1.

[PFOA/PFOS] contamination" in the United States. Salvatore et al., "Presumptive Contamination: A New Approach to PFAS Contamination Based on Likely Sources," Environ. Sci. Technol. Lett. Vol. 9, Issue 11, at 983 (November 8, 2022) (Salvatore) (cited at RIA 14–15, JA __–__).

EPA claims that while this contamination is "widespread," it is also "generally declining." 89 Fed. Reg. at 39,126. EPA admits that since PFOA and PFOS were "largely phased out of domestic production after 2002," EA 5, JA __, blood levels of these substances have declined by 70–85%, 89 Fed. Reg. at 39,126.

In proposing to designate PFOA and PFOS as hazardous substances under CERCLA, EPA proposed to interpret the term "may present substantial danger" in Section 102. EPA did not mention the 1983 Notice or propose any similar quantitative thresholds. Rather, EPA proposed to "consider" a non-exhaustive set of factors and "weigh" this information in a manner it did not explain. *Id.*

EPA also proposed to ignore the costs of designation. In contrast to its 1983 Notice, EPA asserted it could consider only whether a substance "may present substantial danger"—not any other factors, including costs. *Id.* at 54,421. Nevertheless, EPA requested comment on whether it should consider costs, which

costs it should consider, and how it should weigh those costs in deciding whether to designate a substance. *Id.* at 54,423.

While EPA proposed to ignore costs, it also prepared a limited "Economic Assessment" (EA) of the Proposed Rule to comply with executive orders. *See, e.g.,* EO 12866. There, EPA estimated only what it considered the "direct" costs of the regulation, comprising primarily the costs of reporting releases ($0–$370,000). EA at 42, JA __. EPA then included a "qualitative discussion" of the "indirect costs" of the rule, including all future cleanup costs. EA 45–46, JA __–__. But EPA claimed these cleanup costs were "unknown due to a lack of data," and therefore "not feasible to quantify." *Id.*

The Proposed Rule prompted hundreds of comments. *See* Certified Index (Doc. No. 2067217) at 14–45. Among other things, commenters warned that EPA's standard for "may present substantial danger" was limitless and impossible to apply (or predict) with any certainty; that EPA was required to consider the enormous costs of the designation; and that EPA failed to understand the consequences of the proposed rule. *See, e.g.,* Chamber Comments at 23–27, EPA-HQ-OLEM-2019-341-569 (Nov. 10, 2022) (Chamber Comments), JA __–__ (unintended consequences); *id.* at 28–33, JA__–__ (substantial danger); *id.* at 37–50, JA __–__ (costs); AWWA

Comments Legal Appendix at 35–36, EPA-HQ-OLEM-2019-341-544 (Nov. 10, 2022) (AWWA Comments), JA __–__ (substantial danger).

D. EPA publishes the Final Rule.

Despite these concerns, EPA published the Final Rule in May 2024. *Designation of Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonic Acid (PFOS) as CERCLA Hazardous Substances*, 89 Fed. Reg. 39,124 (May 8, 2024).

1. EPA adopts the proposed standard for "may present substantial danger."

In explaining the Final Rule, EPA first interpreted the term "may present substantial danger" in Section 102. In EPA's view, this requires a "possibility" that the substance "may present substantial danger," as determined by what appears to be a purely discretionary weighing of a non-exhaustive set of factors. *Id.* at 39,141–42.

Specifically, EPA considers the "two primary factors" of "hazard" (i.e., "the potential harm to humans or the environment from exposure") and "environmental fate and transport" (i.e., how the substance moves and changes in the environment). *Id*. at 39,141. In assessing these "primary factors," EPA identifies various information it "may consider" in an unspecified manner:

> In deciding whether a substance presents potential harm to humans or the environment from exposure to the substance (hazard), EPA *may consider such information as* human health toxicity, including carcinogenicity, neurotoxicity, developmental toxicity, reproductive toxicity, and other adverse health effects. EPA *may also consider* toxicity or adverse impacts to non-human organisms or ecosystems, such as adverse effects to wildlife, aquatic life, or other natural resources, including adverse impacts on populations of endangered or threatened species or significant degradation of environmental quality over broad areas. Additionally, EPA *may consider* chemical properties such as combustibility, flammability, reactivity, or corrosiveness. Regarding the environmental fate and transport of a substance, EPA *may consider* whether a substance moves readily through the environment, and whether it persists and/or changes in the environment.

Id. (emphasis added).

Beyond these two "primary factors," EPA explained that it "may also consider additional information" that "includes, but is not limited to" the prevalence of releases and the "likelihood of human exposure." *Id*. "Together with hazard and environmental fate and transport, this additional information will inform EPA's conclusion" on whether to designate a substance. *Id.*

EPA then asserted that "[i]n weighing this information, EPA will consider the degree or magnitude of the danger posed based on the substance's hazard and environmental fate and transport characteristics." *Id.* As in the Proposed Rule, EPA

did not explain how the supposed "weighing" would occur or how EPA would choose which information to "consider." It instead gave itself carte blanche.

Finally, EPA applied this interpretation to PFOA and PFOS. It explained that PFOA and PFOS qualified as "hazardous" because they were purportedly "linked to adverse human health effects." 89 Fed. Reg. at 39,143. EPA similarly relied on scientific studies purportedly showing "associations" between PFOA/PFOS and various levels of "adverse" effects. *Id*. at 39,143–46. EPA then declared that "PFOA and PFOS each may present a substantial danger when released." *Id*. at 39,148.

2. EPA declines to decide whether it needs to consider costs.

As for costs, EPA retracted its prior conclusion that it was prohibited from considering costs when designating a hazardous substance. *Id*. at 39,143. EPA instead claimed it "need not resolve" the question because "designation is appropriate" whether costs could be considered or not. *Id.*

To support that conclusion, EPA conducted two analyses in the alternative. First, it asserted that PFOA and PFOS could be designated without considering costs. *See* 89 Fed. Reg. at 39,143–48. Second, it claimed that a previously undisclosed "totality of the circumstances" test, which weighed costs and benefits, "confirms that

designation of PFOA and PFOS as hazardous substances is warranted." *Id.* at 39,149.

3. EPA introduces a new totality of the circumstances analysis that includes costs.

To support EPA's newly disclosed "totality of the circumstances" test, EPA relied heavily on a newly disclosed 300-page regulatory impact analysis (RIA) that weighed various costs and benefits. RIA, JA __-__. EPA "considered the . . . costs and benefits evaluated in the RIA as part of its totality of the circumstances analysis." 89 Fed. Reg. at 39,128.

EPA first considered what it deemed the "direct" costs of the Final Rule, which included EPA's assessment of the costs of reporting releases of PFOA and PFOS. *Id*. at 39,160. EPA calculated those "direct" reporting costs to be no more than $1.6 million per year. *Id.*

EPA then considered what it deemed the "indirect" costs of the Final Rule, which included costs of actually removing PFOA and PFOS from the environment. EPA discussed potential "indirect" cleanup costs at (1) NPL sites, (2) non-NPL sites, and (3) federal sites (the last of which EPA merely acknowledged, only to exclude them from consideration).

First, EPA considered cleanup costs at NPL sites, which EPA actually characterized as benefits. *See id*. at 39,153–54. Without evidence, EPA asserted that it had planned to clean up PFOA and PFOS at NPL sites itself, absent the Final Rule, "under EPA's authority to address PFOA and PFOS as 'pollutants or contaminants.'" *Id.* at 39,153. Accordingly, in EPA's view, the Final Rule did not create any new costs at NPL sites, but merely allowed EPA to "transfer these costs to PRPs." *Id*.[6] EPA deemed this purported transfer "a critical and essential advantage of designation." *Id*. at 39,152.

EPA then estimated the value of this purported benefit at $10.3 million to $51.7 million per year. *Id*. at 39,153. EPA conceded that the "magnitude of such costs" was "highly uncertain" because, among other things, "remedial technologies to address contamination" were "evolving." RIA 172, JA __. But EPA nevertheless tried to quantify them by adding a 2–10% "cost premium" to the costs of prior NPL site cleanups of other substances. *Id*. It did not explain the basis for these cost premiums, other than stating that "some of the same treatment technologies" for

[6] *See also id.* at 39,153 n.47 ("As detailed in the RIA accompanying this rule, these 'cost transfers' from EPA to the PRP do not result in a net increase in economic costs—rather, they just change 'who pays' for these cleanup costs.")

other hazardous substances "may" be used to address PFOA and PFOS. RIA 173, JA __. Nor did it address new NPL sites where PFOA or PFOS were the only hazardous substances present—i.e., where 100% of the cleanup costs were attributable to the Final Rule.

Second, EPA considered cleanup costs at non-NPL sites, which EPA also deemed not actual costs, but rather an "advantage of designation." 89 Fed. Reg. at 39,160. EPA acknowledged that these were new costs and a "burden" for PRPs, *id*. at 39,164, but reasoned that "the cleanup monies spent" by PRPs were an "advantage," *id.*, because they "ensure[] that parties that contributed to releases of PFOA and PFOS are responsible," *id*. at 39,160.

EPA then calculated the potential value of these cleanup costs at non-NPL sites to be $327,000 to $18.1 million per year. *Id*. *See also* RIA 164, JA __. In doing so, EPA limited the universe of potential non-NPL cleanups to 133 sites, RIA 160, JA __, despite elsewhere relying on a study that found "57,412 sites of presumptive [PFOA/PFOS] contamination," Salvatore at 983 (cited at RIA 14–15, JA __–__). EPA then assumed it would act at only half of the sites, and further reduced this universe to 67 sites. RIA 160, JA __. EPA did not discuss any cleanup

that could occur outside of EPA-initiated enforcement actions, such as cleanups initiated by States or private parties.

Third, EPA expressly excluded from either of these calculations any cleanup costs incurred on property owned by the federal government. EPA reasoned that "federal sites are generally expected to address PFOA and PFOS in the absence of designation." 89 Fed. Reg. at 39,177 n.71.

SUMMARY OF THE ARGUMENT

I. As a threshold matter, EPA misinterpreted the term "may present substantial danger" in Section 102(a) of CERCLA. Given EPA's misinterpretation of this foundational statutory term, this Court need not even reach the grave errors EPA made in its analysis of costs.

A. EPA's misinterpretation of "may present substantial danger" places no fixed boundaries on EPA's discretion to designate "hazardous substances" under CERCLA. Rather, it requires EPA merely to consider a non-exclusive list of factors, in an unknown manner, and decide for itself there is even a remote possibility of harm. That interpretation is wrong and would raise serious constitutional questions. An agency's interpretation of a statutory term, even one that "delegates discretionary

authority," must have "fix[ed] boundaries." *Loper Bright Enterprises v. Raimondo*, 144 S. Ct. 2244, 2263 (2024).

B. EPA's interpretation also disregards the broader structure of CERCLA. CERCLA grants significantly more authority to address "hazardous substances" than "pollutants and contaminants," and therefore makes "hazardous substances a smaller and more difficult-to-meet category. But under EPA's interpretation, any "pollutant or contaminant" would also qualify for designation as a "hazardous substance." That flips CERCLA's hierarchy on its head.

C. EPA's interpretation of "may present substantial danger" is also inconsistent with EPA's own prior interpretations of the same or similar terms. EPA previously proposed to interpret the same provision in question to impose concrete quantitative thresholds. And EPA construed similar terms in CERCLA and other statutes to impose fixed boundaries as well. But EPA imposed no similar limits in the Final Rule.

II. EPA's newly disclosed cost analysis is also unlawful.

A. At the outset, EPA was required to consider costs. Section 102(a) allows EPA to regulate hazardous substances only "as may be appropriate." That requires EPA to consider costs, as *Michigan v. EPA* squarely held. EPA no longer

disputes this point, arguing instead that it "need not reach" the issue because designation is warranted whether costs are considered or not.

B. EPA's retreat from its prior position on costs violated the APA's notice-and-comment requirement. In the Final Rule, EPA presented a new cost-benefit analysis, relying on a new 300-page Regulatory Impact Analysis the public had never seen. This Court has invalidated rules for failure to disclose just one *component* of a cost-benefit analysis. Here, EPA failed to disclose the entire analysis. That includes EPA's calculations of both costs and benefits, as well as the data, methodology, and assumptions on which those calculations were based.

C. Given that EPA never subjected its cost-benefit analysis to public scrutiny, it's no surprise that EPA also made serious substantive errors. These included (1) assuming there would be no new cleanup costs at NPL sites; (2) assuming that cleanups would occur at only 67 non-NPL sites in the entire country; (3) ignoring all cleanup costs at federal sites; (4) ignoring costs to particular sectors raised by petitioners; and (5) miscalculating the allegedly offsetting benefits. Each one of these errors establishes prejudice from EPA's notice-and-comment violation, and also independently invalidates the Final Rule as arbitrary and capricious.

D. EPA compounded these errors by violating the RFA—a statute that separately requires federal agencies to consider the cost of their actions on small entities. In certifying that the Final Rule would have no impact on small entities, EPA unreasonably ignored *all* of these entities' cleanup costs.

III. In addition to all its other errors, EPA acted arbitrarily and capriciously by promulgating its rule despite enormous uncertainty about the consequences. EPA's rule applies a particularly harsh environmental statute to two substances that, according to EPA, are ubiquitous in the United States. And EPA opened this pandora's box despite lacking any real understanding of what's inside. EPA doesn't understand where PFOA and PFOS are located; how to clean them up; how much this will cost; or the broader ripple effects of its decision, including on real estate transactions. EPA's decision to move forward anyway is paradigmatic arbitrary-and-capricious decision-making.

IV. Finally, these violations warrant the "normal remedy" of vacatur. Each of these violations was serious, and vacatur would not have disruptive consequences. Exposure to PFOA and PFOS has already declined drastically without the Final Rule, and EPA is already using other more targeted tools to address what remains.

STANDARD OF REVIEW

Under the Administrative Procedure Act (APA), this Court must set aside agency regulations that are "in excess of statutory jurisdiction, authority, or limitations." 5 U.S.C. § 706. This Court reviews an agency's statutory interpretation de novo. *Loper Bright*, 144 S. Ct. 2244. It must apply "the statute's 'best' reading," "without deference" to the agency's interpretation. *U.S. Sugar Corp. v. EPA*, 113 F.4th 984, 991 & n.7 (D.C. Cir. 2024) (citing *Loper Bright*, 144 S. Ct. at 2266).

The APA also requires this Court to set aside agency regulations that are "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706. A regulation is "arbitrary and capricious" if the agency "entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 42 (1983); *see also Ohio v. EPA*, 603 U.S. 279, 280 (2024) ("An agency action qualifies as 'arbitrary' or 'capricious' if it is not 'reasonable and reasonably explained.'" (citation omitted)). The agency must also offer "a

satisfactory explanation for its action including a rational connection between the facts found and the choice made." *Id.* (citation omitted).

Finally, this Court must set aside a rule if the agency failed to provided adequate notice and comment under the APA. 5 U.S.C. § 553(b).

STANDING

Petitioners have associational standing. To demonstrate standing, an association must show that "(1) at least one of its members would have standing to sue in his own right, (2) the interests the association seeks to protect are germane to its purpose, and (3) neither the claim asserted nor the relief requested requires that an individual member of the association participate in the lawsuit." *Sierra Club v. EPA*, 292 F.3d 895, 898 (D.C. Cir. 2002).[7]

Here, Petitioners plainly satisfy the second and third requirements above. By challenging the Final Rule, Petitioners serve their purposes of securing the economic stability of the various industries and businesses they represent. *See, e.g.,* Addendum Add. B002–03 (Chamber Decl. ¶¶ 4–5); Add. B035–36 (AGC Decl. ¶¶

[7] Because all petitioners bring the same claim and seek the same remedy, this Court need only be satisfied that one petitioner has standing. *J.D. v. Azar*, 925 F.3d 1291, 1323 (D.C. Cir. 2019) (per curiam).

4–5). And because Petitioners advance only legal arguments and seek vacatur of the Final Rule, the participation of individual members is not necessary. *Comm. for Effective Cellular Rules v. FCC*, 53 F.3d 1309, 1315 (D.C. Cir. 1995) (broad facial challenge to agency action seeking vacatur does not require individual participation).

The first requirement is also easily shown here. To have standing, a member must show (1) injury-in-fact, (2) causation, and (3) redressability. *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560–61 (1992). There is "ordinarily little question" of standing when the "plaintiff is himself an object of the [government] action." *Id.* at 561. Indeed, "standing is 'usually' self-evident" in that case. *Arizona v. EPA*, 77 F.4th 1126, 1131 (D.C. Cir. 2023).

Here, the administrative record alone, *see* D.C. Cir. R. 29(a)(7), confirms that Petitioners' members are the objects of the regulation.[8] Members of some Petitioners belong to the "relatively narrow set of industries" that EPA has stated it plans to target for enforcement of CERCLA, based on EPA's assessment that they

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[8] *See also, e.g.,* Addendum B004–B011 ¶¶ 10–17, 22–23 (Chamber Decl.); B014–19 ¶¶ 8–18 (Waste Connections Decl.); B024–29 ¶¶ 7–19, 24 (NWRA Decl.); B031–33 ¶¶ 4, 7–12 (Republic Decl.); B036–44, 46–47 ¶¶ 5–24, 30 (AGC Decl.); B053–56 ¶¶ 7–11 (Kokosing Decl.); B061–63 ¶¶ 7–13 (Foundation Service Corporation Decl.); B065–B074 ¶¶ 7–17 (ACC Decl.); B075–B079 ¶¶ 7–12 (AF&PA Decl.); B083–B084 ¶¶ 8–11 (ReMA Decl.).

"directly discharge PFAS . . . in large quantities." US EPA, PFAS Strategic Roadmap: EPA's Commitments to Action 2021–2024, at 7 (Oct. 2021), *available at* https://www.epa.gov/pfas/pfas-strategic-roadmap-epas-commitments-action-2021-2024 (last visited Nov. 3, 2024).[9] Some petitioners' members also belong to sectors and industry groups that EPA claims may be affected by the Final Rule. *See* 89 Fed. Reg. at 39,133–36. These members have "met the standing requirements by showing that [they] will likely face greater liability under [CERCLA]." *Int'l Fabricare Inst. v. U.S. EPA*, 972 F.2d 384, 390 (D.C. Cir. 1992). *See also Mead Corp. v. Browner*, 100 F.3d 152, 155 (D.C. Cir. 1996) (finding "ample" grounds for standing where agency's action "drastically increases the chances of costly activity" by bringing petitioner "within the web of [CERCLA's] cleanup and enforcement scheme").

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[9] *See also* US EPA, PFAS Enforcement Discretion and Settlement Policy Under CERCLA, at 1 (Apr. 19, 2024), *available at* https://www.epa.gov/enforcement/pfas-enforcement-discretion-and-settlement-policy-under-cercla (last visited Nov. 3, 2024); 89 Fed. Reg. at 39,130 ("[T]he Agency expects to 'focus on implementing EPA's PFAS Strategic Roadmap and holding responsible those who significantly contribute to the release of PFAS . . . .'").

Even setting aside that petitioners' members are the objects of the regulation, they can independently establish standing based on specific costs they are already incurring, or imminently will incur, as a result of the Final Rule.[10] For example, EPA has requested that multiple members of Petitioners' associations incur costs testing for PFOA or PFOS as a result of the Final Rule. *See, e.g.,* Addendum B025 (NWRA Decl. ¶ 10); B027 (NWRA Decl. ¶ 16). Other members have incurred increased costs disposing of waste as a result of the Final Rule. *See, e.g.,* Addendum B029 (NWRA Decl. ¶ 24), B045–46 (AGC Decl. ¶ 29), B056 (Kokosing Decl. ¶ 11), B075 (AF&PA Decl. ¶ 11).

Finally, these injuries are made more immediate by CERCLA's requirement that any rule challenged "be made within ninety days from the date of promulgation." 42 U.S.C. § 9613(a). If Petitioners cannot challenge the validity of the Final Rule now, the statute purports to prohibit any later effort to obtain "judicial

[10] *See, e.g.,* Addendum B008, B010–11 ¶¶ 16, 20–23 (Chamber Decl.); B019–20 ¶¶ 19–20 (Waste Connections Decl.); B025, B027–29 ¶¶ 10, 16, 20–24 (NWRA Decl.); B033 ¶¶ 12–14 (Republic Decl.); B042–49 ¶¶ 18, 20, 23–29, 31–37 (AGC Decl.); B054–57 ¶¶ 9–12 (Kokosing Decl.); B063 ¶¶ 12–13 (Foundation Service Corporation Decl.); B065–B074 ¶¶ 15–20 (ACC Decl.); B075–B079 ¶¶ 8–12 (AF&PA Decl.); B084 ¶ 11 (ReMA Decl.).

review in any civil or criminal proceeding for enforcement or to obtain damages or recovery of response costs." *Id*.

ARGUMENT

I. EPA misinterprets the term "may present substantial danger."

Section 102(a) requires EPA to promulgate regulations "as may be appropriate" to designate hazardous substances. As explained below, this language clearly requires EPA to consider costs, and EPA's cost analysis is both procedurally and substantively flawed. But before conducting that cost analysis, EPA must first find that the substances "may present substantial danger." EPA failed to properly interpret this threshold term.

EPA's interpretation of "may present substantial danger" is entitled to no deference. *Loper Bright*, 144 S. Ct. 2244. This Court must instead "apply what [it] regard[s] as the statute's 'best' reading." *U.S. Sugar Corp*, 113 F.4th at 991 (citing *Loper Bright*, 144 S. Ct. at 2266). For multiple reasons, EPA's interpretation in the Final Rule is far from the "best reading."

A. EPA's interpretation has no fixed boundaries.

An agency's interpretation of a statutory term, even one that "delegates discretionary authority," must have "fix[ed] boundaries." *Loper Bright*, 144 S. Ct.

at 2263. Accordingly, this Court must reject agency interpretations that are "unreasonable in [their] breadth." *ACA Int'l v. Fed. Commc'ns Comm'n*, 885 F.3d 687, 699 (D.C. Cir. 2018). Interpretations that "assume an eye-popping sweep" are "incompatible with congressional intent." *Id*. at 697, 699.

Here, EPA's interpretation of "may present substantial danger" has no real boundaries and is therefore unreasonably broad. To begin, EPA interprets "may" to require only a "*possibility* [that] the substance, when released into the environment, presents substantial danger." 89 Fed. Reg at 39,141 (emphasis added). That does nothing to limit the breadth of "may present substantial danger."

EPA then interprets the subject of this "possibility" in equally broad terms. With respect to "substantial danger," EPA merely identifies a non-exclusive set of factors that might be relevant, including "hazard" and "environmental fate and transport." *See* Statement of the Case Section D.1, *supra*. EPA then lists examples of information it "may consider," like "human health toxicity," "adverse impacts to non-human organisms," and "chemical properties." *Id.* EPA "may also consider additional information" that "includes, but is not limited to," "prevalence" and "likelihood of human exposure." *Id.* That describes, to a limited extent, *what* EPA might or might not consider. But it doesn't explain *how* EPA will choose what to

consider or *how* EPA will consider it. Instead, the Final Rule merely asserts that EPA will "weigh this information in deciding whether the substance, when released, may present a substantial danger." *Id.*

That interpretation provides no "fix[ed] boundaries" on EPA's discretion. *Loper Bright*, 144 S. Ct. at 2263. *See also Indus. Union Dep't, AFL-CIO v. Am. Petroleum Inst.*, 448 U.S. 607, 641 n.45 (1980) (plurality opinion of Stevens, J. for four Justices) ("[I]t is unrealistic to assume that [Congress] intended to give no direction whatsoever to [EPA] in promulgating [the Final Rule]."). In EPA's view, any substance can be deemed "hazardous" under CERCLA if there's any "possibility" it could harm humans, animals, or the environment. And EPA will decide for itself whether that "possibility" exists after reviewing all information EPA, in its exclusive and apparently unbounded discretion, deems relevant. That isn't a standard; it's a blank check.

Indeed, almost any substance could clear this minimal bar. Salt (sodium chloride), for example, has the "possibility" of harming humans, animals, or the environment if released in sufficient amounts. Under EPA's interpretation, given the potential hazard and the common presence of salt, EPA could therefore designate it as a "hazardous substance" under CERCLA. And so long as EPA "considered"

the risk information it deemed appropriate (such as "human health toxicity" and "chemical properties"), "weighed" it in some unknown manner, and then determined there was some remote possibility of harm, EPA will have satisfied the standard it announced in the Final Rule.

EPA's application of this interpretation to PFOA and PFOS confirms the problem. In EPA's view, PFOA and PFOS "may present a substantial danger" because they are "associated" with "adverse health effects." 89 Fed. Reg. at 39,148.[11] EPA relies on scientific studies purportedly showing "associations" between PFOA/PFOS and various levels of "adverse" effects. 89 Fed. Reg. at 39,143–46. But EPA never explains why "associated" is equivalent to "present" or why "adverse health effects" are equivalent to "substantial danger." In failing to apply the terms of the statute, EPA impermissibly lowers the bar set by Congress. *Cf. Maine Lobstermen's Ass'n, et al. v. Nat'l Marine Fisheries Service, et al.*, 70 F.4th 582, 599–602 (D.C. Cir. 2023) (vacating a biological opinion that failed to

[11] *See also, e.g., id.* at 39,143 ("linked to adverse human health effects"); 39,167 ("That conclusion is supported by . . . evidence of adverse effects to human health and the environment from PFOA and PFOS exposure . . . .").

evaluate whether jeopardy is likely, the standard set forth in the Endangered Species Act).

EPA's construction isn't correct—but if it were, Section 102(a) would present serious constitutional questions. As an initial matter, it would provide no "intelligible principle" to guide the exercise of EPA's discretion. *J.W. Hampton, Jr., & Co. v. United States*, 276 U.S. 394, 409 (1928). Further, Section 102 would also violate Due Process by failing to "give the person of ordinary intelligence a reasonable opportunity to know" what EPA might designate next. *Grayned v. City of Rockford*, 408 U.S. 104, 108–109 (1972). That is particularly problematic here, where liability has been applied retroactively. Parties not only must be concerned about whether *future* actions might come within CERCLA, but also whether substances they are lawfully handling now might expose them to liability.

These constitutional concerns further confirm that EPA's approach is incorrect, as "Congress does not casually authorize administrative agencies to interpret a statute to push the limit of congressional authority." *Solid Waste Agency of N. Cook Cnty. v. U.S. Army Corps of Eng'rs,* 531 U.S. 159, 172–73 (2001). *See also See Indus. Union,* 448 U.S. at 646 (plurality opinion of Stevens, J., for four

Justices) ("A construction of the statute that avoids this kind of open-ended grant [and thus avoids a constitutional nondelegation problem] is certainly favored.").

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

Aside from being standardless, EPA's expansive interpretation for "hazardous substance" would also be easier to satisfy than the statutory standard for "pollutants or contaminants," destroying Congress's deliberate statutory hierarchy between these two types of substances.

As explained above, CERCLA confers significantly more authority to address "hazardous substances" than "pollutants or contaminants." *See* Statement of the Case Section A.2, *supra*. Congress provided EPA with only limited authority to respond to releases of "pollutant[s] or contaminant[s] which may present an imminent and substantial danger to the public health or welfare," *id.* § 9604(a)(1)(B), and limited the response costs which EPA could recover from PRPs to only "hazardous substances," *see id.* §§ 9601(23) ("removal" definition limited to "hazardous substances" only), 9601(24) ("remedial action" definition limited to "hazardous substances" only), 9607(a) (liability for response costs limited to "all costs of removal or remedial action"). *See also* 89 Fed. Reg. at 39,127. Accordingly, CERCLA establishes a hierarchy between these two types—requiring a higher bar

for "hazardous substances," and making it a smaller category, than "pollutants or contaminants."

Yet, EPA's interpretation would effectively flip the hierarchy that Congress imposed on its head, paving the way for EPA to designate *every* "pollutant or contaminant" as a "hazardous substance." A "pollutant or contaminant" is any substance that "will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions . . . or physical deformations." 42 U.S.C. § 9601(33). That's supposed to be an *easier* standard to satisfy than the standard for "hazardous substance." But because EPA has set virtually *no* bar for "hazardous substance," any substance that "will" or "may reasonably be anticipated to cause" any of the health problems above could also present the "possibility" of a substantial danger, as interpreted by EPA in the Final Rule. Put another way, any "pollutant or contaminant" could also be deemed by EPA a "hazardous substance." Accordingly, the standard for "pollutant or contaminant" is now the *harder* standard to satisfy. That is plainly not what Congress intended.

C. EPA's interpretation of Section 102 is inconsistent with prior agency interpretations.

While EPA claims it couldn't have provided a more definite standard, *see* 89 Fed. Reg. at 39,166, EPA itself has recognized several alternatives that would provide at least some limits on EPA's authority.

First, EPA previously proposed fixed standards for interpreting this very same statutory term. In its 1983 Notice, EPA proposed four different interpretations of "may present substantial danger," all of which would have imposed concrete, quantitative thresholds. *See* Statement of the Case Section B, *supra*. These standards would have provided predictable and reviewable limits on EPA's ability to designate "hazardous substances" that could be understood by the regulated community and the courts. Notably, the Final Rule did not discuss these standards or even mention the 1983 Notice.[12]

[12] This prior interpretation (which was roughly contemporaneous with the passage of CERCLA) undermines any argument that EPA's current, inconsistent interpretation is entitled to respect. *See Loper Bright*, 144 S. Ct. at 2258. Further, reasoned decision-making requires EPA to explain why it no longer believes that a hazardous substance designation under Section 102 requires an identifiable risk threshold. *FCC v. Fox TV Stations, Inc.*, 566 U.S. 502, 515 (2009).

Second, EPA has established limits when construing the term "substantial danger" elsewhere in CERCLA. Section 105 required EPA to include methods for "remedying any releases . . . which pose substantial danger" in its Superfund regulations (the National Contingency Plan or NCP). *Id.* § 9605(a)(2) (emphasis added). In 1990, EPA promulgated a regulation within the NCP requiring remedial actions to, among other things, "[e]stablish… remediation goals" based on "acceptable exposure levels that are protective of human health and the environment," 40 C.F.R. § 300.430(e)(2)(i), such as reducing cancer risk for known or suspected carcinogens to between 1:10,000 and 1:1,000,000, *id.* at § (e)(2)(i)(A)(2). That interpretation, too, provides real boundaries on the term "substantial danger."

EPA concedes that its current interpretation of "substantial danger" is "different." 87 Fed. Reg. at 54,421 n.15, 89 Fed. Reg. at 39,166. To justify the discrepancy, EPA claims "substantial danger" carries a different meaning in the remedial context, because remedies are "site-specific," while Section 102 has "broader applicability." *Id.*; *see also* 89 Fed. Reg. at 39,166. But EPA doesn't explain why the distinction it draws matters—i.e., why a quantitative threshold can be used in a "site-specific" context, but not one of "broader applicability." Indeed,

EPA itself has used such thresholds in applying a broadly applicable provision of the Resource Conservation and Recovery Act (RCRA), another statute similarly addressing human health and environmental risks. *See, e.g.,* 66 Fed. Reg. 58,258, 58,262 (Nov. 20, 2001) (relying on a "hazard quotient of 9.4" to determine that certain inorganic chemical manufacturing wastes showed a significant risk).[13]

* * *

For all these reasons, EPA's interpretation of "may present substantial danger" is incorrect. And because that misinterpretation is antecedent to both alternative analyses in the Final Rule (i.e., considering costs and not), this Court need look no further to invalidate the Final Rule.

II. EPA's evaluation of costs was fatally flawed.

Beyond EPA's flawed interpretation of "may present substantial danger," the Final Rule is also invalid due to EPA's treatment of costs. This is true for four reasons.

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[13] Petitioners do not concede that any of the alternative constructions above would have been appropriate in all respects—they simply demonstrate that EPA is wrong that it is either impossible or inappropriate to give "substantial danger" a more definite meaning than EPA has attempted in the Final Rule.

First, EPA was obligated to consider the costs of the Final Rule. Section 102 requires EPA to decide whether designation of a hazardous substance would be "appropriate"—a term well understood to require consideration of costs. *Michigan v. EPA*, 576 U.S. 743, 752 (2015). Accordingly, EPA's alternative analysis that excludes consideration of costs is contrary to law and irrelevant.

Second, EPA failed to disclose its analysis of costs until promulgating the Final Rule, violating the APA's notice-and-comment requirement. To support this previously undisclosed analysis, EPA relied on a new 300-page "Regulatory Impact Analysis" (RIA). *See, e.g.,* 89 Fed. Reg. at 39,149 ("This [totality of the circumstances] analysis included consideration of the formal benefit-cost analysis . . . provided in the Regulatory Impact Analysis . . . ."). [14] None of that analysis was made available for public scrutiny or comment.

Third, EPA's substantive assessment of costs was fatally flawed. It ignored some categories of cost, drastically underestimated others, and mistook some costs for *benefits*. EPA also ignored categories of costs specifically raised by commenters

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[14] *See also, e.g., id.* at 39,126 ("In conducting the [totality-of-the-circumstances] analysis as to PFOA and PFOS, EPA identified and weighed the advantages and disadvantages of designation . . . alongside the formal benefit-cost analysis . . . provided in the Regulatory Impact Analysis.").

and miscalculated the purported health benefits of the Final Rule. That entire analysis was arbitrary and capricious.

Fourth, EPA's cost analysis also violated the Regulatory Flexibility Act—which, separate and apart from CERCLA itself, requires federal agencies to consider the cost of their actions on small entities. In conducting this analysis, EPA mischaracterized certain costs as "indirect," and thus erroneously excluded them from the reach of the RFA. That too was arbitrary and capricious.

A. EPA was required to consider costs.

EPA was required to consider the costs of designating new hazardous substances under Section 102. Section 102 requires EPA to "promulgate and revise *as may be appropriate*, regulations designating as hazardous substances." 42 U.S.C. § 9602(a) (emphasis added). Whether designation is "appropriate" depends on whether the resulting benefits are outweighed by the costs.

This issue is squarely governed by *Michigan*, 576 U.S. 743. There, the Supreme Court addressed a provision in the Clean Air Act requiring EPA to regulate hazardous air pollutants from power plants if EPA first "finds . . . regulation is appropriate and necessary." *Id*. at 748. EPA argued (*id.* at 755) that it was prohibited from considering costs in making that threshold determination, citing *Whitman v.*

American Trucking Associations, 531 U.S. 457, 465 (2001)—just as EPA did here in the Proposed Rule. But the Supreme Court disagreed.

The Court held that EPA was required to consider costs, relying heavily on the term "appropriate." It explained that, "[i]n particular, 'appropriate' is the classic broad and all-encompassing term that naturally and traditionally includes consideration of all the relevant factors." *Id.* at 752. And cost, the Court explained, was "a centrally relevant factor." *Id.* at 752–53. Accordingly, "the phrase 'appropriate and necessary' requires at least some attention to cost" when used "to determine whether '*regulation* is appropriate and necessary.'" *Id.* at 752 (citation omitted). *See also id.* at 753 ("[R]easonable regulation ordinarily requires paying attention to the advantages *and* the disadvantages of agency decisions.").

Applied here, *Michigan* requires EPA to consider costs. Section 102(a) requires EPA to "promulgate and revise *as may be appropriate*, regulations designating . . . hazardous substances." 42 U.S.C. § 9602(a) (emphasis added). As in *Michigan*, the word "appropriate" refers directly to EPA's decision whether to regulate. Accordingly, EPA must "treat[] cost as a centrally relevant factor" when making that decision. *Id.* at 752–53. *See also, e.g.*, *Alon Ref. Krotz Springs, Inc. v. EPA,* 936 F.3d 628, 654 (D.C. Cir. 2019) (agency required to consider cost when

determining whether renewable fuel obligation would "be applicable to refineries, blenders, and importers, as appropriate").

EPA doesn't dispute this conclusion in the Final Rule, claiming instead that it "need not resolve" whether it is required to consider costs. 89 Fed. Reg. at 39,165–66. But it did dispute this conclusion in the Proposed Rule, claiming the term "as may be appropriate" did *not* require consideration of costs. 87 Fed. Reg. at 54,422–23. That reasoning is not persuasive.

In the Proposed Rule, EPA argued that in *Michigan*, the term "appropriate and necessary" was the *only* standard for deciding whether to regulate. 87 Fed. Reg. at 54,422. In contrast, EPA claimed, CERCLA provides additional "guidance" by defining the term "hazardous substance" in a manner that doesn't relate to costs. *Id.* EPA further claimed that "the word 'appropriate' is not used in the context of what EPA should consider when assessing whether a substance is hazardous." *Id.*

That argument conflates two separate components of Section 102(a). In considering whether a substance *is* hazardous, EPA must decide whether it "may present substantial danger." 42 U.S.C. § 9602(a). Arguably, that does not require EPA to consider costs. But in deciding whether to *regulate* that substance under CERCLA, EPA must consider whether designating it under Section 102(a) would

be "appropriate." *Id.* And as in *Michigan*, that *does* require EPA to consider costs. EPA cannot designate substances as hazardous without checking *both* boxes. *See, e.g., Ctr. for Biological Diversity v. Nat'l Marine Fisheries Serv.,* No. 22-5295, 2024 WL 3083338, at *1 (D.C. Cir. June 21, 2024) ("The government does not consider economic impacts when it lists an animal as endangered. But the government does consider economic impacts when it decides on 'appropriate' regulations to guard . . . a listed species.").

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

After commenters explained that EPA *was* required to consider costs, EPA did so (in the alternative) in the Final Rule. But this pivot unsurprisingly led to a notice-and-comment violation. In considering costs for the first time, EPA relied on a previously undisclosed 300-page "Regulatory Impact Analysis" (RIA). *See* Statement of the Case Section D.3, *supra*.

"The APA requires that an agency publish notice of proposed rulemaking, including 'either the terms or substance of the proposed rule or a description of the subjects and issues involved.'" *Owner-Operator Indep. Drivers Ass'n, Inc. v. Fed. Motor Carrier Safety Admin.*, 494 F.3d 188, 199 (D.C. Cir. 2007) (quoting 5 U.S.C. § 553(b)(3)). This provides "interested persons an opportunity to participate." *Id.*

(quoting same). And it yields "useful criticism," preventing the agency from seeing only "a one-sided or mistaken picture of the issues at stake." *Connecticut Light & Power Co. v. Nuclear Regul. Comm'n*, 673 F.2d 525, 530 (D.C. Cir. 1982).

The agency must disclose not just the proposal, but also the reasoning behind its proposal. "If the notice of proposed rule-making fails to provide an accurate picture of the reasoning that has led the agency to the proposed rule, interested parties will not be able to comment meaningfully." *Id.* at 530. Failure to disclose this reasoning is a "serious procedural error" that converts "what should be a genuine interchange" into a "mere bureaucratic sport." *Id.*

When disclosing this reasoning, it is "especially important for the agency to identify and make available technical studies and data that it has employed." *Id.* To allow otherwise would encourage a game of "hunt the peanut," with the agency "hiding or disguising the information." *Id.* *See also Banner Health v. Price*, 867 F.3d 1323, 1336 (D.C. Cir. 2017) ("Under APA notice and comment requirements, 'among the information that must be revealed for public evaluation are the technical studies and data upon which the agency relies in its rulemaking.'").

Here, EPA failed to disclose any of the RIA, which EPA used to justify the Final Rule.[15] When initially proposing the rule, EPA offered only a limited Economic Assessment that bore no resemblance to the 300-page RIA used to support the Final Rule. *See* Statement of the Case Section C, *supra*. The Economic Assessment estimated only the relatively trivial reporting costs imposed by the designation, and declined to estimate any compliance or liability costs at all—i.e., the vast majority of the actual costs of the Final Rule. *See id*.

By contrast, the Final Rule relied on new estimates of costs. *See* Statement of the Case Section D.3, *supra*. For example, EPA calculated that cleanup costs at NPL sites would increase by approximately $10 million to $51.7 million per year, and costs at non-NPL sites would be $327,000 to $18.1 million per year. *See id*. Those estimates were never previously disclosed to the public, and the methodologies, data, and assumptions that went into them were never disclosed either.

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[15] Such analyses are judicially reviewable when an agency relies on them to issue a rule. *See Nat'l Ass'n of Home Builders v. EPA*, 682 F.3d 1032, 1040 (D.C. Cir. 2012) ("[W]hen an agency decides to rely on a cost-benefit analysis as part of its rulemaking, a serious flaw undermining that analysis can render the rule unreasonable."). EPA did so here. As EPA said, "it considered the quantitative and qualitative direct and indirect costs and benefits evaluated in the RIA as part of its totality of the circumstances analysis." 89 Fed. Reg. at 39,128.

The Final Rule also relied on estimated benefits that were not disclosed. For example, the Economic Assessment from the Proposed Rule did not attempt to estimate any quantifiable health benefits. *See* EA at 46–47, JA __–__. Instead, it merely asserted that designation could lead to an unknown decrease in certain "adverse health effects." *Id.* at 47. In comparison, the Final Rule included several new estimations of purported annual health benefits, valued at up to $25,800,000 at NPL sites, 89 Fed. Reg. at 39,156, and between $8,990 and $539,000 at non-NPL sites, *id.* at 39,156–57. EPA claims these calculations are merely "illustrative," *id.*, but in fact they are crucial to quantitatively weighing costs and benefits.

This Court has vacated rules for far less. In *Owner-Operator*, for example, the agency changed just *one component* of the cost-benefit methodology used to justify a rule limiting operating hours for truck drivers. 494 F.3d at 188, 193. Specifically, the agency predicted the benefits of stricter hours restrictions, measured by accidents avoided, through an "operator-fatigue model." *Id.* at 199. Between the agency's proposal and its final rule, "[m]any of the details of the model[] were unchanged." *Id.* at 200. But in the final rule the agency did "modif[y]" the model by introducing a new "time-on-task multiplier," which increased crash risk the

longer a driver was on duty. *Id.* This was a "key component of the cost-benefit analysis." *Id.* at 198.

This Court held that this belated change in the agency's cost-benefit methodology "unquestionably" violated the APA:

> Because the time-on-task multipliers were an integral part of the operator-fatigue model, and because the output of that model was central to [the agency's] decision to adopt the [Final Rule] . . ., the model and its methodology were unquestionably among the 'most critical factual material that was used to support the agency's position.'

Id. (citation omitted). Accordingly, "[t]he failure to provide an opportunity for comment on the model's methodology" was "a violation of the APA's notice-and-comment requirements," *id.*, leading this Court to vacate the rule, *id.* at 206. *Cf. GPA Midstream Ass'n v. United States Dep't of Transp.,* 67 F.4th 1188, 1196 (D.C. Cir. 2023) (vacating rule in relevant part where agency failed to disclose the cost-benefit analysis of applying a pipeline safety rule to a particular type of pipeline until publishing the final rule).

EPA's violation was far worse here than in *Owner-Operator*. While the agency there changed one component of its analysis, EPA here introduced entirely new calculations of the lion's share of costs, and all of EPA's quantitative calculation

of benefits, for the first time in the Final Rule. Commenters had no chance to address any number of errors in this analysis, including the following:

- EPA's calculation of increased costs at NPL sites;
- EPA's calculation of increased costs at non-NPL sites;
- EPA's calculation of quantified benefits at NPL sites, RIA 195–204, JA __–__;
- EPA's assessment of benefits (but not costs) from inducing (through the reporting obligation) better waste management, RIA 7, JA __.
- EPA's assessment of "indirect benefits," including "property value impacts," "agricultural benefits," "benefits for public drinking water systems," "ecological benefits," "benefits associated with natural resource damages," "benefits associated with R&D," benefits of improved management of materials containing PFOA/PFOS, and "increased land productivity after site cleanup," *e.g.,* RIA 8–9, JA __–__; and
- EPA's failure to fully assess costs to particular industries.

See Section II.C, *infra*. Under *Owner-Operator*, any *one* of these changes or omissions would constitute a notice-and-comment violation. But here, EPA made *all* these changes at once, as part of a new 300-page analysis it had never previously disclosed.

The fact that EPA requested comment on the potential costs of designation does not mitigate the problem. 87 Fed. Reg. at 54,423 (soliciting comment on whether costs should be considered "and, if costs should be considered, how they

should be considered"). This invited commenters to address the issue of cost generally, but it didn't allow them to address the specific methodology, data, and assumptions that EPA used to evaluate cost in the Final Rule. No commenter could have predicted how EPA would select its data, use those data to calculate costs, and then weigh those costs against the predicted benefits.

Finally, EPA's notice-and-comment violation was prejudicial. *See Owner-Operator*, 494 F.3d at 202 ("[W]e must take due account of the rule of prejudicial error."). At the outset, this Court has "not been hospitable to government claims of harmless error in cases in which the government failed to provide notice." *Nat. Res. Def. Council v. Wheeler*, 955 F.3d 68, 85 (D.C. Cir. 2020). Among other things, "the entire premise of notice-and-comment requirements is that an agency's decision-making may be affected by concerns aired by interested parties through those procedures." *Id.* Accordingly, to show prejudice, challengers need only "raise a credible argument about the merits of the rule." *GPA Midstream*, 67 F.4th at 1198. That is, they need only "show they had something useful to say," not that "the agency, had it adhered to the procedural requirements of the law, would have reached a different result." *Id.*

Here, commenters would have had more than merely "something useful to say." They could have shown how the analysis was fundamentally flawed and, therefore, arbitrary and capricious. *See* Section II.C, *infra*.[16]

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

Due in part to this procedural violation, EPA's cost-benefit analysis contains significant substantive errors. The analysis focuses mainly on "direct" costs of the rule related to reporting releases of PFOA and PFOS. 89 Fed. Reg. at 39,160. But those costs are trivial compared to the costs of *cleaning up* PFOA and PFOS, which EPA characterized as "indirect" and "contingent" and refrained from considering with any rigor. *Id*. And when calculating these "indirect" cleanup costs for the first time in the Final Rule, EPA made numerous "serious errors," including:

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[16] Further, this analysis was also critical to justifying the Final Rule, because EPA was required to consider costs when deciding whether regulation was "appropriate." *See* Section __, *supra*. Accordingly, the Final Rule cannot stand without it. *See Owner-Operator*, 494 F.3d at 206 (finding prejudice where "the basis for the [agency's] cost-benefit analysis" was not disclosed); *Small Refiner Lead Phase-Down Task Force v. U.S.E.P.A.,* 705 F.2d 506, 541 (D.C. Cir. 1983) ("[W]e should not, we think, consider any [late-disclosed evidence] in determining whether there is enough evidence in the record to support the final rule."); *Am. Iron & Steel Inst. v. Occupational Safety & Health Admin.,* 939 F.2d 975, 1010 (D.C. Cir. 1991) ("[R]eliance on such [late-disclosed] evidence normally is improper.") (citing *Small Refiner*).

1. Treating cleanup costs incurred by PRPs as benefits rather than costs, and assuming it would cost roughly the same to clean up PFOA and PFOS as other substances, despite previously rejecting this comparison;

2. Assuming that cleanups would occur at only 67 non-NPL sites, despite also relying on a study finding over 57,000 sites of presumptive PFOA/PFOS contamination;

3. Ignoring all cleanup costs at federal sites;

4. Ignoring costs to particular sectors raised by petitioners; and

5. Miscalculating the allegedly offsetting benefits.

These errors not only establish that EPA's procedural violation was prejudicial, as noted above, but also independently warrant vacatur of the Final Rule. As this Court has said, "a serious flaw in [an agency's] cost-benefit analysis can render the resulting rule . . . arbitrary and capricious," *Window Covering Mfrs. Ass'n v. Consumer Prod. Safety Comm'n*, 82 F.4th 1273, 1288 (D.C. Cir. 2023). So while this Court does "review cost-benefit analyses deferentially," *id.*, if "the rule constitutes such an unreasonable assessment of social costs and benefits as to be arbitrary and capricious, the rule cannot stand," *Thompson v. Clark*, 741 F.2d 401, 405 (D.C. Cir. 1984).

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

To begin, EPA made several important errors in considering the costs of cleaning up PFOA and PFOS at sites on the NPL. (These are sites that EPA can either clean up using the Superfund or force PRPs to clean up instead.)

First, EPA improperly assumed the Final Rule would impose no new cleanup costs at NPL sites. EPA asserted that were it not for the Final Rule, EPA itself would clean up all the PFOA and PFOS at these NPL sites as "pollutants or contaminants." *See* Statement of the Case Section D.3, *supra*. So, in EPA's view, the Final Rule did not create any new costs at all at NPL sites, but merely transferred preexisting costs from the Superfund to PRPs, which EPA considered a *benefit*. *Id.*

That argument is baseless. EPA nowhere establishes that it was already cleaning up PFOA and PFOS as "pollutants or contaminants" at NPL sites prior to the Final Rule. Indeed, as one commenter pointed out, EPA has *not* expended significant Superfund dollars to clean up PFOA and PFOS, and the expenditure of costs for PFOA and PFOS response actions are far more likely to be driven by third party claims, not EPA. AWWA Comments at 25, JA __.

Nor does EPA establish that it *could* clean up PFOA and PFOS as "pollutants or contaminants." EPA can only clean up pollutants or contaminants that "may

present an *imminent* and substantial danger." 42 U.S.C. § 9604(a)(1) (emphasis added). EPA never makes this showing with respect to PFOA or PFOS.

Finally, even if EPA could clean up PFOA and PFOS as "pollutants or contaminants," the Final Rule warps EPA's incentives. It encourages EPA to clean up sites it might deem too expensive to clean up itself by allowing EPA to recover those costs from others. For all these reasons, the entire foundation of EPA's baseline analysis is unsupported.

More important, EPA's premise assumes the conclusion. For it to be true that EPA would nevertheless clean up PFOA and PFOS at NPL sites absent the Final Rule, EPA would need to show it would be *cost-effective* to do so. As EPA elsewhere acknowledges, "costs are considered when determining the remedy" at any particular site, particularly given EPA's "resource constraints." 89 Fed. Reg. at 39,128. *See also* 42 U.S.C. § 9621(a) (remedial actions must provide for "cost-effective response"). By asserting (without evidence) that EPA would clean up PFOA and PFOS absent the Final Rule, EPA is assuming that the benefits of doing so would justify the costs. EPA may not avoid the issue of costs and benefits by simply begging the question.

In addition to this fundamental flaw, EPA also miscalculated the value of these purported "transfer costs." 89 Fed. Reg. at 39,153. In calculating these costs, EPA assumed that PFOA and PFOS would add only an incremental cost at NPL sites—i.e., that EPA would be cleaning up other substances at these NPL sites anyway, and that cleaning up PFOA and PFOS alongside these substances would only marginally increase costs. RIA 172, 182, JA __, __. EPA assumed that this added "cost premium" would be 2–10%, *id.*, yielding a total "transfer cost" of $10.3 million to $51.7 million per year, *id.* at 184, JA __.

This analysis contains multiple errors. First, EPA ignores that it can now designate NPL sites that *only* contain PFOA or PFOS, and do not contain any other hazardous substances. If EPA is correct that PFOA and PFOS can be found almost anywhere, then many sites will contain PFOA or PFOS but no other hazardous substances. And for any such site added to the NPL, the Final Rule wouldn't just add a "cost premium"—it would add an entirely new site, with 100% of the costs incurred at that site (not just 2–10%) attributable to the Final Rule. EPA entirely ignores these sites.

Further, even for sites that contain more than just PFOA or PFOS, EPA provides no basis for assuming a "cost premium" of only 2–10%. In fact, one

Petitioner estimated this cost premium to be as high as 50% or 100%. Chamber Cost Study at 7 Table 2, JA __. Further, EPA previously warned against this very methodology, saying that cleanup costs for PFOA and PFOS should *not* be calculated using cleanup costs for other substances. EA 50, JA __ ("[I]t is unknown how [historical NPL costs] would relate or compare to costs associated with response actions addressing PFOA and PFOS at a contaminated site."). In short, even accepting EPA's flawed premise of "transfer costs," EPA had "insufficient empirical data" to make the calculation, rendering it arbitrary and capricious. *Business Roundtable v. SEC*, 647 F. 3d 1144, 1150 (D.C. Cir. 2011).

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

EPA's assessment was also arbitrary and capricious with respect to cleanup costs at non-NPL sites. And those errors are even more consequential, because the Final Rule will affect far more non-NPL sites.

As with costs incurred at NPL sites, EPA erroneously deemed most costs incurred at non-NPL sites to be *benefits* of the rule. The Final Rule "acknowledges that the costs parties expend to clean up PFOA and PFOS is a burden for them." 89 Fed. Reg. at 39,164. But "[n]otwithstanding this, EPA views the cleanup monies spent by PRPs as an *advantage* of the rule." *Id.*(emphasis added).

That conclusion makes even less sense with respect to non-NPL sites. Unlike with NPL sites, EPA does not claim that cleanup costs at non-NPL sites would be incurred absent the Final Rule, and are therefore merely *transferred* from the public to PRPs. Rather, EPA seems to acknowledge it is imposing *new* cleanup costs on PRPs, but views those new costs as a benefit—because "ensur[ing] that parties that contributed to releases of PFOA and PFOS are responsible for response costs" is an "advantage of designation." *Id*. at 39,160. *See also id.* ("For PRPs that have significantly contributed to PFOA and PFOS contamination, imposing liability is appropriate and necessary.").

That doesn't follow. Under that logic, if cleaning up a particular non-NPL site would cost a PRP $1 million, while also producing $100,000 in health benefits, then the cleanup would yield $1.1 million in net benefits (as opposed to $900,000 in net costs). And that can't be right—the $1 million in costs are new costs regardless of who ultimately pays the tab. EPA cannot transform what are obviously costs into benefits simply by declaring them so.

Further, even if EPA had properly recognized these costs, EPA's estimate is arbitrarily low. EPA estimated that these aggregate costs could be $327,000 to $18.1 million per year—much *lower* than the $10.3 million to $51.7 million it estimated at

NPL sites. But costs incurred at non-NPL sites should be much *higher*. There are far more non-NPL sites than NPL sites, as EPA itself concedes. *See id* at 39,177 ("[O]nly about *four percent* of all contaminated sites added to EPA's Active Site Inventory were placed on the NPL.") (emphasis added); *id*. at 39,164 n.59. ("[R]eleases that contain PFOA or PFOS are more likely to be addressed through non-NPL mechanisms than through the NPL.").[17] That's because at non-NPL sites, liability can be imposed not only by EPA, but also by other federal agencies, States, and private parties. *Id*. This alone shows that EPA's cost estimate is off, according to EPA's own reasoning.

It isn't hard to see where EPA went wrong. In its analysis, EPA assumed a total universe of only 133 potential non-NPL sites for the entire United States. RIA 160, JA __. But even EPA's own sources find this estimate is far too low. Indeed, EPA cites one study estimating "*57,412 sites* of presumptive [PFOA/PFOS] contamination" in the United States, including "49,145 industrial facilities, 4,255

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[17] EPA's "Active Site Inventory" lists sites where a cleanup action is either being contemplated or is underway. US EPA, List 8R Active Site Inventory, *available at* https://www.epa.gov/superfund/list-8r-active-site-inventory#:~:text=The%20Active%20Site%20Inventory%20Report,include%20latitude%20and%20longitude%20information (last visited Nov. 3, 2024).

wastewater treatment plants, 3,493 current or former military sites, and 519 major airports." Salvatore at 983 (cited at RIA 14–15, JA __–__) (emphasis added). EPA's 133 sites represent approximately 0.2% of the universe of potential sites identified by the study that EPA itself cites.

The magnitude of this error is enormous. Extrapolating EPA's own estimate of $327,000 to $18.1 million to the full universe of 57,412 presumptively contaminated sites yields a projected annual cost of $141 million to $7.8 billion. Limiting that extrapolation to industrial facilities (49,145) would still yield a projected annual cost of $121 million to $6.7 billion.

Other aspects of EPA's non-NPL site analysis were arbitrary and capricious. For example, EPA baselessly assumed cleanup would occur only where EPA takes enforcement action. But only about one third of Superfund cost recovery cases are filed by the federal government. AWWA Comments at 8, JA __. Further, EPA also assumed that the cleanup costs at these sites would be equivalent to costs previously incurred at NPL sites for other substances.[18] But that assumption doesn't hold, as

[18] *See* RIA 162, JA __ ("In the absence of historical cost data for non-NPL site response actions. . . the low-end value . . . is the sum of the costs associated with a preliminary investigation and site inspection for sites under consideration for

EPA itself has previously conceded. EA 50, JA __ ("[I]t is unknown how [historical NPL costs] would relate or compare to costs associated with response actions addressing PFOA and PFOS at a contaminated site.").

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

Finally, EPA unreasonably ignored cleanup costs at federal sites. 89 Fed. Reg. at 39,177 n.71 ("EPA determined that it was appropriate to assess the designations' impact with respect to non-federal NPL sites only . . . ."). EPA itself expects the "size and scope" of "Federal PFOA and PFOS cleanup sites to be substantially larger than non-federal sites." *Id*. at 39,183. For example, the Department of Defense (DoD) alone has identified 687 of its own sites "with a known or suspected release" of PFOA or PFOS. EA 54, JA __. These costs will impact not only taxpayers, but also any private-sector PRPs implicated at DoD sites. 42 U.S.C. § 9607(a)(4)(A).

To justify ignoring these costs, EPA asserted that "federal sites are generally expected to address PFOA and PFOS in the absence of designation." *Id.* It explained

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listing in the NPL."); *id.* ("The high-end value is the cost of the average remedial investigation/feasibility study for sites on the NPL.").

that federal sites were "largely already addressing PFAS . . . as required by the NDAA [National Defense Authorization Act], federal facilities agreements, and in some instances voluntarily." RIA 122, JA __. That rationale cannot withstand scrutiny.

First, none of the NDAAs discussed by EPA require federal agencies to actually *clean up* PFOA or PFOS. *See, e.g.,* RIA 83, 85, JA __, __ (requiring the DoD to "transition away from" firefighting foams containing PFOA/PFOS, "propos[e]" a "schedule for completion of remediation for PFAS," and "estimat[e] the associated costs").[19] But the Final Rule has the effect of granting EPA and other parties that power. By designating PFOA and PFAS as hazardous substances, EPA and other parties can now require federal agencies to clean up PFOA and PFOS. *See* 42 U.S.C. § 9620.

Second, the argument that some federal agencies are cleaning up PFOA and PFOS "voluntarily" suffers the same basic fallacy. RIA 122, JA __. In the absence of any requirement that these agencies do so, EPA cannot assume this would occur absent the Final Rule. In fact, the day the Final Rule went into effect, the State of

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[19] EPA discusses NDAAs enacted in 2020, 2022, and 2023. RIA 83, 85–87, JA __, __–__.

New Mexico asserted a CERCLA claim against DoD for allegedly failing to voluntarily act. Am. Compl. ¶¶ 235–45, *New Mexico v. United States*, No. 18-mn-02873-RMB (D.S.C. July 8, 2024).

Third, "federal facilities agreements" do not justify ignoring costs at federal sites. These agreements are between EPA and other federal agencies governing the cleanup of federal sites listed on the NPL. 42 U.S.C. § 9620(e)(2). According to EPA, "under federal facility agreements regarding pollutants or contaminants, federal agencies may be required to address PFOA and PFOS releases at certain federal sites." RIA 72, JA __.

EPA's reasoning here is flawed in several respects. At the outset, EPA failed to include any federal facilities agreements in the administrative record, and an "agency action is arbitrary and capricious if it rests upon a factual premise that is unsupported by substantial evidence." *Ctr. for Auto Safety v. Fed. Highway Admin.*, 956 F.2d 309, 314 (D.C. Cir. 1992). But even accepting EPA's characterization of these agreements, they only "may" result in some cleanup at "certain federal sites." RIA 72, JA __. That is not a basis for ignoring *all* costs at *all* federal sites, as EPA does in the Final Rule.

4. EPA ignored significant categories of costs identified by commenters, and failed to adequately respond to these comments.

Aside from mischaracterizing and underestimating cleanup costs, EPA also failed to consider costs to specific industries. Commenters specifically identified these costs, but EPA failed to provide a "reasoned response." *Ohio v. EPA*, 603 U.S. at 280. This further confirms that the Final Rule was "not reasonably explained, that [EPA] failed to supply a satisfactory explanation for its action, and that it instead ignore[s] an important aspect of the problem." *Id.* at 294. *See also Business Roundtable*, 647 F.3d at 1149 (agency acted "arbitrarily and capriciously" by "fail[ing] to respond to substantial problems raised by commenters").

Multiple organizations raised concerns about costs to the waste management sector. Petitioners NWRA and the Chamber, for example, both warned that removing PFOA and PFOS from landfill leachate could increase costs by 400% to 800%, or $966 million and $8.2 billion per year—for municipal solid waste landfills alone. NWRA Comments at 4, EPA-HQ-OLEM-2019-341-480 (Nov. 10, 2022), JA __, Chamber Comments, at 16–17, JA __–__. Similarly, the American Water Works Association warned that the Final Rule could force water treatment plants to

incinerate liquid sludges at a cost of $1,700 per ton, or $3.5 billion per year. AWWA Comments at 4, JA __.

Petitioner AF&PA warned that the Final Rule would increase the cost of managing residual materials from paper mills because liability concerns would limit the beneficial reuse of these materials. AF&PA provided data showing it would cost the paper industry between $573 and $766 million per year to adopt a waste management method recommended by EPA in its PFAS Destruction and Disposal Guidance. AF&PA Comments at 19, EPA-HQ-OLEM-2019-341-423 (Nov. 10, 2022). Further, AF&PA warned that this consequence of the Final Rule could overburden landfills, increase greenhouse gas emissions, and disrupt supply chains. *Id.* at 19–20, JA __–__.

In the Final Rule, EPA unreasonably dismissed these concerns. It acknowledged that changing waste management practices "may, but will not necessarily, involve additional costs." RIA 150 n.226, JA __. But it then baldly asserted that "[i]ssues pertaining to wastewater treatment, irrigation and farming practices, general waste management and the like, are outside the scope of this rulemaking and require no response." EPA, Response to Comments at 148, EPA-HQ-OLEM-2019-341-839 (May 8, 2024), JA __. At the same time, EPA did rely

on the purported *benefit* of "incentiviz[ing] better waste management practices" of products that may contain PFOA or PFOS. 89 Fed. Reg. at 39,170. EPA's failure to consider the corresponding costs of these practices, even-handedly assess costs and benefits, and provide a "reasoned response" to commenters' concerns, was arbitrary and capricious. *Ohio*, 603 U.S at 305. *See also Business Roundtable*, 647 F.3d at 1154 (arbitrary and capricious for agency to consider benefits of an activity without considering corresponding costs).

EPA also ignored costs to the construction industry. Petitioner AGC expressed concern that the presence of PFOA and PFOS in soil, groundwater, and building materials could impact all sectors of construction and demolition. AGC Comments at 3, EPA-HQ-OLEM-2019-341-418 (Nov. 10, 2022), JA __. AGC also cited increased costs for training and certifications, project delays, testing of materials before demolition, construction, and/or disposal, as well as limited treatment and disposal options. *Id.* at 7–8, JA __. Given these impacts, AGC questioned "why EPA [did] not include contractors/construction among the list of industry sectors that may be impacted by this economically significant proposal." *Id.* at 2, JA __. In response, EPA continued to ignore contractors' costs and to omit

contractors from the list of entities that may be affected by the Final Rule. *See* 89 Fed. Reg. at 39,133–36.

Finally, Petitioner ReMA raised concerns about impacts and costs to the recycled materials industry. Recyclers do not add PFOA and PFOS to recycled materials or otherwise introduce them into commerce, and any residual presence in recycled materials (that would have been added only in the original manufacturing process) provide no value to the recycling process. ISRI Comments at 2, EPA-HQ-OLEM-2019-341-556 (Nov. 10, 2022) (ISRI Comments), JA __. But EPA's designation of PFOA and PFOS as a CERCLA hazardous substance can open recyclers and some other participants in the recycling materials chain to potential CERCLA liability as a result of the normal mechanical recycling process, either directly or indirectly as "arrangers" for disposal. This significant liability exposure will discourage participants from (or possibly make it financially infeasible for) offering or accepting for recycling materials that could contain even miniscule concentrations of PFOA and PFOS (particularly since in the vast majority of situations it will not be possible to know whether the substances are present).

This threatens to significantly disrupt the national recycling system. Recycling provides many benefits to the environment, the economy, and our

communities. As EPA has itself acknowledged, "[r]ecycling has been a critical component of [its] decades-long efforts to implement the Resource Conservation and Recovery Act (RCRA) and its more recent efforts to pursue a Sustainable Materials Management (SMM) approach, which aims to reduce the environmental impacts of materials across their lifecycle." EPA, Draft National Recycling Strategy at 6 (Oct. 5, 2020), *available at* https://www.epa.gov/sites/default/files/2020-10/documents/draft_national_recycling_strategy.pdf (last visited Nov. 3, 2024). Successful recycling requires cooperation among multiple participants: individuals and companies must separate and make available recyclable materials, which are then collected and transported to facilities that sort or process the recyclable materials, to produce a high-quality product for sale to manufacturers for the production of the everyday products and infrastructure used throughout our economy. A disruption to the national recycling system can thus cause significant economic costs and adverse environmental consequences, such as the increased depletion of natural resources, energy use, greenhouse gas emissions, and waste disposal, none of which were taken into account by EPA.

Petitioner ReMA raised these concerns in comments, arguing that "EPA must address this potential economic harm," ISRI Comments at 6, JA __, and EPA's

failure to make its RIA and "totality of the circumstances" analysis available for public comment further aggravated EPA's failures. But EPA ignored these concerns too in the Final Rule. Indeed, EPA didn't even mention the impact on recycled materials. Again, the complete failure to even acknowledge a significant concern raised by commenters is arbitrary and capricious. *Ohio*, 603 U.S. at 299.

5. EPA's assessment of benefits was arbitrary and capricious too.

EPA's arbitrary analysis of costs is itself sufficient to invalidate the Final Rule. But EPA's assessment of benefits was arbitrary and capricious too.

First, as discussed above, EPA arbitrarily and capriciously by sleight of hand transformed costs into benefits, and in other places claimed benefits (e.g., enhanced waste management practices) while affirmatively ignoring the costs associated with those alleged benefits. *See* Section C.1–2, 4, *supra*. This artificially inflated EPA's claimed benefits.

Second, EPA failed to consider whether the purported health benefits of cleaning up PFOA and PFOS could be obtained through less costly means. For example, the same health benefits could be obtained by providing alternative water to those populations, as DoD has done when communities surrounding installations have elevated PFOA and PFOS levels in their drinking water, without assuming that

PFOA and PFOS removal would be economically appropriate in all instances. *See* Office of the Assistant Secretary of Defense for Energy, Installations, and Environment, U.S. Department of Defense, *Appendix B: Per- and Polyfluoroalkyl Substances Task Force Activities During the Fourth Quarter of Fiscal Year 2022*, "Report on Department of Defense's Per- and Polyfluoroalkyl Substances Task Force Activities," at B-2 January 2023 (cited in RIA at 86 n.142, JA __).

D. EPA compounded these errors by violating the RFA.

Compounding these errors, EPA's cost analysis also violated the Regulatory Flexibility Act (RFA). The RFA requires executive agencies to analyze the impact of proposed actions on small entities. In doing so, it requires agencies to prepare a "regulatory flexibility analysis" that, among other things, estimates the number of small entities impacted, and details steps taken to minimize that impact. 5 U.S.C. § 604(a)(1). Agencies can avoid preparing a regulatory flexibility analysis only by properly certifying that "the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities" ("no-impact certification"). 5 U.S.C. § 605(b). Such certifications are subject to arbitrary and capricious review. *Lake Carriers' Ass'n v. EPA*, 652 F.3d 1, 5 (D.C. Cir. 2011). *See also* 5 U.S.C. § 611(a)(1) (authorizing judicial review of no-impact certifications).

In determining whether there is a significant economic impact, agencies must consider "the direct impact of a regulation on regulated small entities." *Mid-Tex Elec. Co-op., Inc. v. FERC*, 773 F.2d 327, 342 (D.C. Cir. 1985) (quotation marks removed). A "direct impact" is felt by small entities that are "subject to the proposed regulation." *Id.* By contrast, agencies should not consider the "indirect impact" on small entities that are *not* regulated by the relevant rule. *Id.*

Here, in purporting to comply with the RFA, EPA certified that the Final Rule "will not have a significant economic impact on a substantial number of small entities." 89 Fed. Reg. at 39,184. But in reaching that conclusion, EPA erroneously excluded the lion's share of costs to these entities as "indirect." This error independently warrants relief.

In making the no-impact certification, EPA concluded that "direct effects to small entities are limited to potential reporting costs," which it "expected to be infrequent and relatively minor." RIA 61, JA __. EPA then concluded that the impact on small entities of "[p]otential liability for response costs" was "an *indirect* effect of designation," and therefore did not count as significantly impacting regulated small entities. *Id.* at 62, JA __ (emphasis added). EPA deemed an impact

"indirect"—even if felt by small entities that are regulated by the rule—if it is "contingent" on further agency action. *Id*.

That was incorrect. As explained above, an impact is "direct" for RFA purposes when felt by small entities that are directly regulated by the Final Rule. That is all. Those same impacts do not somehow become "indirect" because they are contingent on further action—*Mid-Tex* makes clear that effects are "indirect" only if felt by small entities that are *not* directly regulated by the rule. Accordingly, EPA abused its discretion by categorically excluding substantial costs borne by regulated small entities.

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, fundamental reason: it will have severe consequences that EPA has not carefully assessed and does not understand.

Designation of new "hazardous substances" should not be taken lightly. Liability under CERCLA is both broad and harsh, with remedial actions lasting decades and costing tens of millions of dollars. *See* Statement of the Case Section A.3, *supra*. Accordingly, CERCLA is a cudgel that must be wielded with care.

Congress itself recognized when requiring EPA to consider costs before designating any new substance under Section 102(a). *See* Argument Section II.A, *supra*. And particular care was warranted here, where EPA designated two substances that are purportedly present at over 57,000 sites nationwide. *See* Argument Section II.C.2, *supra*.

Yet EPA designated PFOA and PFOS despite acknowledging significant uncertainty as to the consequences of that action. These uncertainties included (1) where PFOA and PFOS are located, and in what quantities; (2) what economic costs the Final Rule will impose, and how parties will address contamination; and (3) unintended consequences of designation, including on real estate transactions. That was arbitrary and capricious.

Plowing forward despite too much uncertainty about the effects of a rule is arbitrary and capricious. It is true that "[r]easoned judgment may at times permit . . . action in the face of uncertainty." *Ctr. for Biological Diversity v. EPA*, 749 F.3d 1079, 1090 (D.C. Cir. 2014). "But at some point, action infected by enough uncertainty cannot be called reasoned." *Id.* That this Court has "rejected *certainty* as an appropriate goal, does not mean that regulation is required (or permitted) no matter how much *uncertainty* the agency faces." *Id.* at 1090 n.18.

Further, agencies "may not tolerate needless uncertainties . . . when the evidence fairly allows investigation and solution of those uncertainties." *Nat. Res. Def. Council, Inc. v. Herrington*, 768 F.2d 1355, 1391 (D.C. Cir. 1985). Indeed, "[a] key element of rulemaking is the collecting of relevant information." *A Cmty. Voice v. EPA*, 997 F.3d 983, 993 (9th Cir. 2021).

Here, EPA unleashed CERCLA onto substances it claims are everywhere, despite admitting serious uncertainties about the resulting impacts. These uncertainties, combined with the harshness of CERCLA, render the Final Rule arbitrary and capricious.

First, EPA admits uncertainty as to where PFOA and PFOS are located, and in what quantities. EPA acknowledges "numerous uncertainties" concerning "how many sites have PFOA or PFOS contamination at a level that warrants a cleanup action," "the extent and type of PFOA and PFOS contamination at/near sites," and "the extent and type of other contamination at/near sites." 89 Fed. Reg. at 39,160. *See also* RIA 211, JA __ (admitting that EPA "lacks information on the number of sites that may require response actions"). Accordingly, EPA doesn't know where, and to what extent, new liability under CERCLA will be imposed—and made no serious effort to resolve that uncertainty before promulgating the Final Rule.

Based on what little EPA does claim to understand, the magnitude of these unknown effects is huge. If PFOA and PFOS are everywhere, as EPA supposes, then potential liability under CERCLA is everywhere too. As one Petitioner explained in comments, the Final Rule subjects millions of landowners to potential liability. Chamber Comments at 54, JA __. Yet, EPA lowballs the cost to PRPs for cleanup of contaminated sites through, among other things, using arbitrary cost premiums and drastically underestimating the number of potential sites. *See* Argument Section II.C.1–2, *supra*.

Second, EPA admits uncertainty about the economic costs the Final Rule will impose. EPA concedes that "[p]otential costs associated with CERCLA enforcement actions that may occur after designation are difficult to assess." 89 Fed. Reg. at 39,152. *See also, e.g.,* RIA 214, JA __ ("[T]here is scarce information on the magnitude of costs and benefits associated with response actions."); 89 Fed. Reg. at 39,159–60 ("[T]here is uncertainty associated with . . . response costs, costs that may arise from a judgment of liability, and litigation costs."); *id.* ("[F]uture response costs are uncertain."). And as discussed above, EPA's limited attempt to assess these costs was woefully inadequate. *See* Section II.C.1–4, *supra*. EPA ignores crucial

categories of these costs. *Id.* And the costs EPA does attempt to quantify are dramatically underestimated. *Id.*

Compounding this problem, EPA lacks certainty as to *how* parties should address contamination. EPA concedes that "[t]he science on treating, destroying, and disposing of PFAS is evolving." 89 Fed. Reg. at 39,179. And until that science further develops, there remain "uncertainties regarding assessment and cleanup methods and associated costs." RIA 213, JA __. *See also id.* (explaining that "[t]reatment and disposal methods for PFOA and PFOS are changing," and this introduces "further uncertainty regarding the cost of response actions"). In addition, "the incremental cost of addressing PFOA/PFOS" at "existing contaminated sites" is also "uncertain." *Id.* *See also id.* at 214 (noting "[l]imited data . . . documenting the incremental costs of PFOA/PFOS cleanup"); *id.* ("The extent to which PFOA/PFOS contamination co-occur with other substances is uncertain and complicates costs estimates in several ways . . . ."). Without knowing *how* parties should address PFOA and PFOS contamination, it is impossible to understand the costs that designation will impose.

Third, EPA cannot foresee the unintended consequences of its actions. For starters, designation could easily slow down, rather than speed up, cleanup sites.

Remedial actions take years, if not decades, to complete, and often lead to protracted litigation. *See* EA 50, JA __. And EPA is already substantially backlogged. Of the approximately 1,800 sites EPA has added to the NPL since 1980, fewer than 500 have been fully remediated.[20] Designating PFOA/PFOS would complicate ongoing cleanup efforts, divert resources from more urgent cleanup sites, and potentially reopen sites that have already been deemed remediated.

Designation could also severely hamper real estate transactions. As discussed, current property owners can be held liable for contamination that occurred under prior ownership. *See* 42 U.S.C. § 9607(a)(1). And while CERCLA provides "bona fide prospective purchaser" liability protection, that requires the prospective purchaser, prior to acquiring the property, to make "all appropriate inquiries into the previous ownership and uses of the facility." *Id.* § 9601(40)(B)(ii)(I). Accordingly, designation will force prospective purchasers to engage "an environmental professional" to conduct inquiries into potential PFOA or PFOS contamination before closing. *See* 40 C.F.R. § 312.21. This will complicate real estate transactions

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[20] *See* US EPA, Number of NPL Sites of Each Status at the End of Each Fiscal Year, *available at* https://www.epa.gov/superfund/number-npl-sites-each-status-end-each-fiscal-year (showing 1,340 active NPL sites and 458 deleted NPL sites as of 2024) (last visited Nov. 3, 2024).

across the country even for residential properties. *See* 89 Fed. Reg. at 39,161 (EPA recommending "residential landowners" to avail themselves of protections "available to Bona Fide Prospective Purchasers" . . . or 'innocent land owners'").

EPA claims that some of these concerns can be ameliorated through proper use of EPA's "enforcement discretion." *See, e.g., id.* at 39,130 ("Enforcement discretion policies historically have given EPA the needed flexibility to offer liability comfort or protections when circumstances warrant."). But "[e]nforcement discretion policies are not exclusions from liability." *Id.* at 39,168 n. 64. *See also id.* at 39,129 n.16 (". . . EPA's policies are not regulations and do not create new legal obligations."). Instead, they are exercised at the sole option of EPA. How EPA chooses to exercise that discretion could vary greatly with changing administrations.

Further, even if these policies were binding, they "apply only to EPA." *Id.* Accordingly, they do nothing to prevent State governments or private parties from suing PRPs for clean-up costs, either for contribution under Section 113 or cost-recovery claims under Section 107. For these reasons, regulated entities cannot rely on EPA's enforcement discretion for protection.

In sum, the Final Rule designated purportedly ubiquitous substances under a particularly harsh environmental statute in the face of monumental uncertainty, without taking reasonable steps to understand the consequences. That was arbitrary and capricious.

IV. The proper remedy is vacatur.

Each of EPA's legal violations independently warrants vacatur of the Final Rule, which "is the normal remedy when [this Court] is faced with unsustainable agency action." *New Jersey Conservation Found. v. FERC*, 111 F.4th 42, 63 (D.C. Cir. 2024). Remand *without* vacatur is appropriate only "[i]n rare cases," depending on "two factors: (1) the seriousness of the deficiencies of the action, that is, how likely it is the agency will be able to justify its decision on remand; and (2) the disruptive consequences of vacatur." *Id.* Here, both factors confirm that the normal remedy of vacatur is appropriate.

First, all the deficiencies identified above were serious. EPA misinterpreted a critical statutory term, failed to subject almost all its cost-benefit analysis to notice and comment, made serious substantive errors as a result, and ultimately stormed ahead in the face of enormous uncertainty. None of those errors are likely to be corrected on remand.

Second, vacatur would not trigger disruptive consequences. Exposure to PFOA and PFOS has already been declining drastically for decades. *See* Statement of the Case Section C, *supra*. And EPA and other regulators are already addressing what remains through other, more targeted means. *See, e.g., PFAS National Primary Drinking Water Regulation*, 89 Fed. Reg. 32,532 (April 26, 2024); US EPA, Key EPA Actions to Address PFAS, *available at* https://www.epa.gov/pfas/key-epa-actions-address-pfas (last visited Nov. 3, 2024). It would be far more disruptive to leave the Final Rule in place, given the costs that affected entities are already incurring and the threat of liability that they face. *See* pp. 27–29, *supra*; Argument Section II.C, *supra*.

CONCLUSION

For the foregoing reasons, this Court should vacate the Final Rule.

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Respectfully submitted,

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CERTIFICATE OF COMPLICANCE

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

(i) complies with the type-volume limitation of Rule 32(a)(7) because it contains 16,096 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 4, 2024 /s/ *Elbert Lin*

CERTIFICATE OF SERVICE

I hereby certify that, on November 4, 2024, 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 4, 2024 /s/ *Elbert Lin*