



**American
Forest & Paper
Association**

November 7, 2022

Michelle Schultz
Office of Superfund Remediation
and Technology Innovation (5202T)
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., NW
Washington, DC 20460

**Re: EPA Proposed Rule: Designation of Perfluorooctanoic Acid (PFOA) and
Perfluorooctanesulfonic Acid (PFOS) as CERCLA Hazardous Substances;
Docket ID No. EPA-HQ-OLEM-2019-0341**

Dear Ms. Schultz:

The American Forest & Paper Association (AF&PA) appreciates the opportunity to provide comments and recommendations on EPA's proposed rule to list PFOA and PFOS as hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund).¹

Introduction

Overview of AF&PA

AF&PA serves to advance U.S. paper and wood products manufacturers through fact-based public policy and marketplace advocacy. Our members make essential products including pulp, packaging, printing papers, tissue, wood products, and a range of other products that are among the most used and necessary items for people in the U.S. and abroad – and are made from renewable and recyclable resources.

The forest products industry accounts for approximately four percent of the total U.S. manufacturing GDP, manufactures nearly \$300 billion in products annually and employs approximately 950,000 people. The industry meets a payroll of approximately \$60 billion annually and is among the top 10 manufacturing sector employers in 45 states.²

¹ 87 Fed. Reg. 54415 (Sept. 6, 2022).

² AF&PA 2030 Sustainability Goals, <https://www.afandpa.org/2030>

AF&PA's sustainability initiative — *Better Practices, Better Planet 2030* — comprises one of the most extensive quantifiable sets of sustainability goals for a U.S. manufacturing industry and is the latest example of our members' proactive commitment to the long-term success of our industry, our communities and our environment. We have long been responsible stewards of our planet's resources.

Our Contributions to the Circular Economy

The paper and wood products industry's role in supporting a circular economy is present along the entire value chain. Our industry contributes to a circular economy by sourcing renewable raw materials from sustainably managed forests; optimizing product design and maximizing efficient manufacturing processes to reduce waste; and improving recycling of our industry's products to keep materials in use – while providing essential products that people use every day.

Paper products are integral to the quality of life enjoyed in America. Applications include printing and writing, packaging, towel and tissue, and a variety of products that are important in our daily lives. These products are manufactured in highly efficient processes, often powered by carbon-beneficial bioenergy produced from residuals of the manufacturing process. The use of forest-derived products is one way to reduce the use of fossil fuels, and paper products can be recycled, composted, and effectively disposed of in a safe and convenient way when necessary.

Two-thirds of the paper used in the U.S., about 50 million tons each year, is recycled³ and used to make new sustainable paper products people use every day. Recycled paper and packaging fibers can be reused five to seven times to make new products.⁴ Approximately 80 percent of U.S. paper mills use some recycled paper fiber to make products like packaging, office paper, newspaper, toilet paper, napkins and paper towels.⁵

As part of AF&PA's 2030 sustainability goals, the industry aims to advance a circular value chain and continue to improve the sustainability of our products to meet evolving

³ AF&PA Annual Statistical Summary of Recovered paper Utilization, 36th Edition, June 2022.

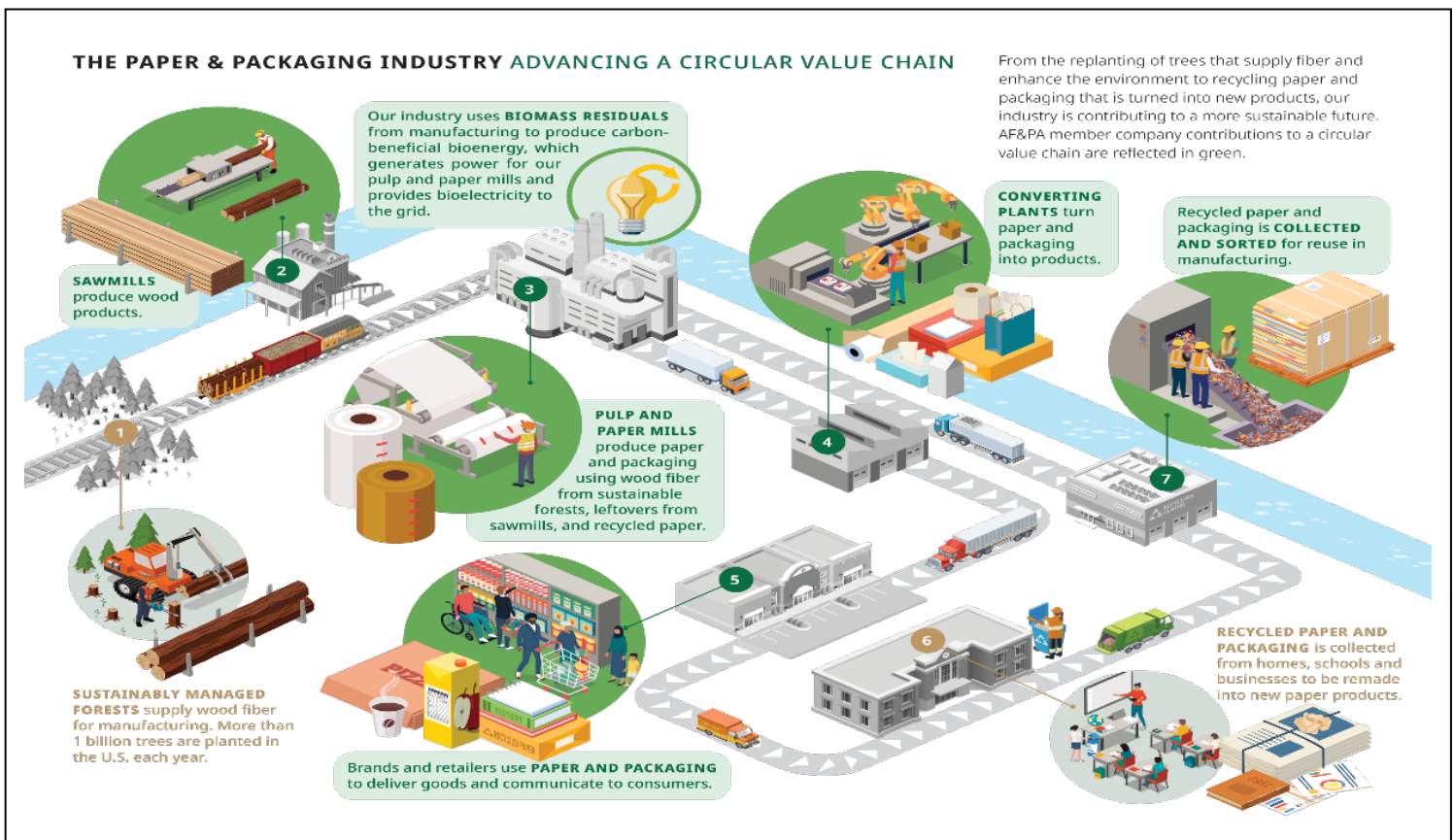
⁴ TAPPI, How is Paper Recycled? (Paper U, Earth Answers: 2001). <https://tappi.org>

⁵ Approximately 80 percent of U.S. paper mills use some recycled paper fiber to make products like packaging, office paper, newspaper, toilet paper, napkins and paper towels.

consumer needs. This includes innovating manufacturing processes, products and packaging, as well as increasing the utilization of recycled fiber and wood residuals in manufacturing across the industry to 50 percent by 2030.

The industry also has announced approximately \$5 billion in manufacturing infrastructure investments by the end of 2023 to continue the best use of recycled paper in our products. That is nearly \$2.5 million per day. Those investments will enable the industry to use an additional 8 million tons of recovered fiber in manufacturing annually.

The infographic below outlines the circular economy benefits of the pulp and paper industry:



Executive Summary

We are concerned that the listing of PFOA and PFOS as hazardous substances under CERCLA could have the unintended outcome of impeding or preventing the safe and beneficial use of paper mill residuals. As discussed more fully below, paper mills generate significant volumes of residuals, composed primarily of cellulose (wood fibers) captured from wastewater treatment. A substantial proportion of these residuals are beneficially applied on farmlands and forestlands to promote plant growth. Although per- and polyfluoroalkyl substances (PFAS) such as PFOA and PFOS are widespread in the environment, their presence in mill residuals is incidental and below indicators of ambient background levels, such as house dust. Without clarity from EPA about what levels are safe and acceptable, there could be significant stigma and perceived risk to continuing to use these residuals as a soil amendment. That not only could cause adverse economic impacts on many mills and significant job loss, but also would lead to increased landfilling of these residuals – to the detriment of the environment and many local communities. Thus, AF&PA has a very substantial interest in this rulemaking.

In our comments below, we explain:

- Paper mill residuals can continue to be safely and beneficially land applied for agronomic value, to promote plant growth, and to provide other important societal benefits.
- EPA has more than ample legal authority, under CERCLA Sec. 102(a) and the fertilizer exclusion in CERCLA Sec. 101(22)(D), to recognize this beneficial practice and to ensure it continues in a safe and sustainable manner while avoiding unintended outcomes. Indeed, Sec. 102(a) requires consideration of all relevant factors, including costs, in a hazardous substance listing decision, and certainly allows consideration of costs and unintended outcomes.
- If EPA does not exercise its legal authority to provide for the safe and beneficial land application of mill residuals, there could be many unintended outcomes, including unwarranted economic costs and job impacts, as well as adverse environmental and public health costs, which should be carefully considered.

Discussion

I. Background on Paper Mill Residuals and Recommendations to Clarify the Preamble

A. Overview of Paper Mill Residuals

In the paper making process, a large quantity of residuals is generated — around 2.5 million dry metric tons per year in the United States.⁶ Paper mill residuals typically are largely composed of tree fiber (i.e., cellulose) residuals from primary, and occasionally secondary, wastewater treatment.⁷ As part of the industry's sustainable use of materials, the trend to use residuals in a beneficial manner is increasing compared with landfilling. For example, from 1979 to 2016, paper mill residuals management has increased land application by 700%, while decreasing landfilling and lagooning by about 60% and increasing energy recovery by 280%.⁸ Land-applied residuals are beneficial for farmlands and forestlands because they can increase soil nutrient-holding capacity, reduce soil erosion and the need for irrigation, and reduce soil compaction, which significantly improves plant growth.

B. The U.S. Paper Industry's Transition Out of PFAS

The U.S. paper industry does not make or use PFOA and PFOS in the papermaking process. Over a decade ago, the pulp and paper industry ceased using long-chain PFOA and PFOS for limited specialty applications (particularly grease- and moisture-resistant packaging) and shifted to short-chain PFAS approved by Food and Drug Administration (FDA) as safe for food packaging. PFAS that may degrade into PFOA and PFOS also have been phased out by industry and have had their authorizations revoked by FDA. Current authorized PFAS applications for food contact materials do not degrade into PFOA or PFOS.⁹

⁶ See National Council for Air and Stream Improvement, "Solid Residual Generation and Beneficial Use, and Wastewater Treatment Performance and Practices of the North American Pulp and Paper Industry," Technical Bulletin No. 1063, Cary, NC (Dec. 2019), Sec. 3.1, at p. 22.

⁷ Paper mill residuals may also include boiler ash residuals and lime kiln residuals (mainly calcium carbonate and calcium oxide with trace amounts of magnesium, sulfur, boron and potassium). The makeup of land-applied mill residuals varies from mill to mill, and may also depend on the agronomic needs of the receiving land.

⁸ See National Council of Air and Stream Improvement, "Solid residual generation and beneficial use, and wastewater treatment performance and practices of the North American pulp and paper industry," No. 1063 (Dec. 2019).

⁹ USFDA 2022. Authorized Uses of PFAS in Food Contact Applications. Accessed October 28, 2022.

<https://www.fda.gov/food/chemical-contaminants-food/authorized-uses-pfas-food-contact-applications>

More recently, AF&PA members have transitioned to PFAS-free alternatives and have virtually completed their voluntary transition out of FDA-approved short-chain PFAS. Currently, FDA-approved PFAS is used in less than 0.1% of AF&PA company members' total production.¹⁰ AF&PA anticipates its members will entirely complete the ongoing transition out of FDA-approved short-chain PFAS by the end of 2023, if not sooner.

C. We Recommend that EPA Clarify the Preamble to Accurately Summarize the U.S. Paper Industry's Transition Out of PFAS

As drafted, the preamble does not accurately describe the pulp and paper industry's transition out of PFAS.¹¹ If EPA finalizes the rule, we request that the preamble be revised to accurately reflect our industry's timely and voluntary transition out of PFAS as outlined above.

II. The Final Rule Should Exclude PFOA and PFOS Contained in Paper Mill Residuals That Are Beneficially Applied to Land as a Fertilizer or Soil Conditioner.

A. Background on the Beneficial Land Application of Paper Mill Residuals

Papermill residuals can continue to be safely and beneficially applied to farmlands and forestlands.¹²

Many state programs require landowners receiving residuals to operate under management plans to ensure the safe and beneficial use of papermill residuals as soil amendments. These state regulated management plans often include:

- Chemical and physical characterization of the material
- Limits on application based on agronomically appropriate rates
- Restrictions on application in flooded or snow-covered fields
- Setbacks from streams, wells, and residential or public buildings
- Soil tillage and residuals incorporation requirements

¹⁰ Based on information AF&PA collected in 2020, company member products containing intentionally added PFAS represented less than 0.1 percent of AF&PA members' paper and paperboard production.

¹¹ See 87 Fed. Reg. 54418-19 (outlining uses of PFAS in the U.S.).

¹² In addition, EPA should be mindful that residuals have value, and AF&PA members do not pay landowners to take our residuals.

- Siting and storage requirements¹³

Because the U.S. paper industry exited from its limited use of PFOA and PFOS in certain specialty products such as grease- and moisture-resistant packaging over a decade ago, the industry is not a source of new loadings into the environment above background concentrations. This is confirmed by data examined by AF&PA.

AF&PA reviewed samples of paper mill residuals which were tested for PFOA and PFOS. Many samples do not show detectable levels of PFOA or PFOS, but because PFOA and PFOS are widespread in the environment, they have been detected in some samples of paper mill residuals, albeit at very low levels. AF&PA data on paper mill residuals samples show median values of non-detect for PFOA and 4.05 parts per billion (ppb) for PFOS. This is below median values of PFOA and PFOS in many biosolids, and also below levels found in common household dust. For example, a study of PFOA and PFOS concentrations in biosolids by the Ecology Center and Sierra Club (2021) reports median concentrations of 1.53 ppb for PFOA and 13.2 ppb for PFOS.¹⁴ Information on common house dust, which is often used as an environmental integrator of chemical deposition, and which we believe is representative of background contamination of PFOS, shows median values ranging from 24 ppb to 9 ppb for PFOA and 27 ppb to 4 ppb for PFOS for samples taken between 2013 and 2016.¹⁵

Because the manufacturing of PFOA and PFOS and their uses in many applications has been curtailed, their concentrations in the environment have declined over time. Because PFOA and PFOS concentrations in the environment have been trending downward over time, the sample collection timeframe is very important in making proper comparisons. For example, as provided by Hall et al., 2020, PFOS concentrations in common house dust for the period of 2000 to 2020 have declined by 98% from 201 ppb to 4 ppb. For PFOA, concentrations have declined by 94% in this same time frame,

¹³ National Council for Air and Stream Improvement, "Guide to State-Specific Regulations on Beneficial Use of Manufacturing Residuals," Technical Bulletin No. 1064, Cary, NC (2019). We note that some states (e.g., Michigan) are developing risk management approaches that allow for land application of biosolids with de minimis levels of PFAS. See Michigan interim strategy on land application of biosolids (2021), available at <https://www.michigan.gov/-/media/Project/Websites/egle/Documents/Programs/WRD/Biosolids/PFAS-Biosolids-Strategy.pdf?rev=c81c0064150d4f45bece88efcf304e3f>

¹⁴ PFA-Garden-Sludge-Report.pdf (sierraclub.org)

¹⁵ Hall, SM, Patton, S, Petreas, M. et al., Per- and Polyfluoroalkyl Substances in Dust Collected from Residential Homes and Fire Stations in North America, Environ. Sci. & Tech, 2020, 54, 22. 14558-14567. Table in supplemental information: <https://pubs.acs.org/doi/10.1021/acs.est.0c04869>

from 142 ppb to 9 ppb (median values). Similar declining trends have been identified in other matrices.¹⁶

Accordingly, EPA can recognize the safe and beneficial application of paper mill residuals to promote plant growth on farmlands and forestlands without concern that doing so would increase environmental loadings of PFOA or PFOS.

B. The Listing of PFOA and PFOS in Table 302.4 Should Contain an Exclusion for PFOA and PFOS Contained in Beneficially Land-Applied Paper Mill Residuals.

1. The CERCLA Fertilizer Exclusion

When Congress enacted CERCLA in 1980, it provided four exclusions from the definition of “release,” one of which is “the normal application of fertilizer.”¹⁷ EPA interpreted that exclusion in its preamble to the final Clean Water Act Part 503 standards for biosolids (then called “sewage sludge”). There, EPA said that the “normal application of fertilizer” encompasses application of municipal biosolids as a fertilizer or soil conditioner, if those biosolids meet applicable Part 503 standards.¹⁸ Paper mill residuals are similarly used as a fertilizer or a soil conditioner, and PFOA and PFOS incidentally contained in such residuals should be similarly excluded from the scope of this rule. (We anticipate that municipalities and other entities interested in the continued land application of biosolids will seek a similar interpretation of the current biosolids exclusion for PFOA and PFOS contained in biosolids.¹⁹) As explained below, EPA has broad authority, relying on Congressional precedent, to incorporate such an exclusion in a listing rule under CERCLA Section 102(a).

2. CERCLA § 102(a) Grants EPA Broad Discretion to Create Exclusions from CERCLA Listings.

¹⁶ Graber JM, Alexander C, Laumbach RJ, Black K, Strickland PO, Georgopoulos PG, Marshall EG, Shendell DG, Alderson D, Mi Z, Mascari M, Weisel CP. Per and polyfluoroalkyl substances (PFAS) blood levels after contamination of a community water supply and comparison with 2013-2014 NHANES. *J Expo Sci Environ Epidemiol*. 2019 Mar;29(2):172-182. doi: 10.1038/s41370-018-0096-z. Epub 2018 Nov 27. PMID: 30482936; PMCID: PMC6380951.

¹⁷ 42 U.S.C. § 9601(22)(D).

¹⁸ 58 Fed. Reg. 9248, 9262 (Feb. 19, 1993).

¹⁹ See, e.g., Rick Weber, “Lawyer Touts CERCLA Waivers for Biosolids as EPA Readies PFAS Rule,” *Inside EPA* (Aug. 24, 2022).

Section 102(a) authorizes EPA to designate hazardous substances “as may be appropriate.”²⁰ Congress’s choice of words here gives EPA maximally broad discretion to determine the scope and conditions of any listing Section 102(a) regulation. The Supreme Court has stated that “‘appropriate’ . . . is ‘open-ended’ on its face,”²¹ and that it “is the classic broad and all-encompassing term that naturally and traditionally includes consideration of all the relevant factors.”²² EPA therefore is authorized to take into account the facts, explained further below, that:

- Congress intended for the normal application of fertilizer to be excluded from CERCLA coverage;
- Paper mill residuals are used as a fertilizer or soil conditioner; and
- The Agency has previously found another form of wastewater treatment residuals, when land applied for this purpose, to fall within the CERCLA fertilizer exclusion.

EPA has never previously relied solely on its Section 102(a) authority to list a substance as a CERCLA hazardous substance. EPA therefore will be writing on a blank slate, exercising its full authority under that provision, unconstrained by any previous listing actions or statements regarding that authority. EPA should receive substantial deference for any Section 102(a) listings, moreover, as that subsection is a clear delegation of legislative rulemaking authority. Section 102(a) says: “The Administrator shall promulgate and revise as may be appropriate, regulations,”²³ and the Supreme Court has held that—

[W]hen Congress grants an agency the authority to administer a statute by issuing regulations with the force of law, it presumes the agency will use that authority to resolve ambiguities in the statutory scheme. When Congress authorizes an agency to proceed through notice-and-comment rulemaking, that relatively formal administrative procedure is a very good indicator that Congress intended the regulation to carry the force of law....²⁴

The breadth of EPA’s authority under the “as may be appropriate” language of Section 102(a) applies equally to its ability to include substances within a listing and its ability to

²⁰ See 42 U.S.C. § 9602(a).

²¹ *Tanzin v. Tanvir*, 141 S.Ct. 486, 491 (2020).

²² *Michigan v. EPA*, 135 S.Ct. 2699, 2707 (2015)(internal quotations omitted).

²³ See 42 U.S.C. § 9602(a).

²⁴ *Encino Motorcars, LLC v. Navarro*, 136 S.Ct. 2117, 2125 (2016)(internal citations and quotations omitted).

exclude them. The Supreme Court has concluded that Congress’s use of the phrase “as provided for” in a provision of the Affordable Care Act, without “any [further] criteria or standards to guide” HHS,

means that HRSA has *virtually unbridled discretion* to decide what counts as preventive care and screenings. But the same capacious grant of authority that empowers HRSA to make these determinations leaves its discretion equally unchecked in other areas, including the ability to *identify and create exemptions* from its own Guidelines.²⁵

The phrase “as may be appropriate” certainly gives the Agency at least as much discretion as, if not more than, “as provided for.” Therefore, EPA has the authority to provide, in a PFOA and PFOS listing, that PFOA and PFOS incidentally contained in paper mill residuals that are beneficially land-applied as a fertilizer or soil conditioner are excluded from that listing on the basis of the fertilizer exclusion.

3. Congress Contemplated that CERCLA Listings Could Have Exclusions

A Section 102(a) listing rule is just one of six ways that a material can become a CERCLA hazardous substance. The CERCLA definition of “hazardous substance,” Section 101(14), has six subparagraphs. Subparagraph (B) refers to the Section 102(a) process. The five other subparagraphs -- (A), (C), (D), (E) and (F) – all refer to other lists created by EPA or Congress under different statutory authorities.²⁶ All current hazardous substances became so by being contained on one of those enumerated lists.

The metes and bounds of listings so incorporated into CERCLA provide guidance regarding what Congress envisioned for EPA’s actions under Section 102(a), as EPA noted in the preamble.²⁷ The fact that Congress specifically designated these other listings to become hazardous substances by reference is *prima facie* evidence that EPA is free to incorporate any attribute of one of those listings into a listing under Section 102(a). So, for example, the presence of exclusions in many of the RCRA listed wastes and hazardous air pollutant descriptions that Congress designated as “hazardous

²⁵ *Little Sisters of the Poor Saints Peter & Paul Home v. Pennsylvania*, 140 S.Ct. 2367, 2380 (2020) (emphasis added).

²⁶ See 42 U.S.C. § 9601(14).

²⁷ See 87 Fed. Reg. 54423 (“CERCLA section 101(14) also includes CERCLA section 102(a), which suggests it should be interpreted in a manner similar to the other authorities on the list.”).

substances” via Section 101(14)(C) and (E) indicates that Congress envisioned that hazardous substance listings – including those promulgated by EPA under Section 102(a) – can have exclusions. Certainly, to say that hazardous substances designated by Congress can have exclusions, but those designated by EPA under Section 102(a) cannot, would require some clear evidence of Congressional intent. But no such evidence exists. Thus, the presence of exclusions in the listings incorporated from RCRA and Clean Air Act, as discussed below, means that Congress contemplated that EPA’s hazardous substance designations could also incorporate exclusions.

a. RCRA Listed Wastes

As just noted, CERCLA § 101(14)(C) incorporates RCRA listed wastes into the definition of “hazardous substance.” Accordingly, the regulatory list of hazardous substances (40 C.F.R. § 302.4, Table 302.4) incorporates the RCRA F and K lists of hazardous wastes from non-specific and specific sources, respectively. These listings contain narratives that recite the conditions associated with these listings, many of which are complex. The descriptions of the F001 to F005 spent solvent listing are especially good examples. Each of these listings applies to an enumerated list of solvents, as well as to any spent solvent mixtures containing, before use, a total of 10% or more of one or more of those solvents and any of the solvents contained in any of the other F001-F005 solvent listings. For example, here is the description for F004:

The following spent non-halogenated solvents: Cresols and cresylic acid, and nitrobenzene; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.²⁸

*So, under this example, a spent solvent mixture of cresol and seven other F-listed spent solvents, where, before use, each of them made up only 1% of the mixture, would not be a hazardous substance.*²⁹

b. CAA Hazardous air pollutants

²⁸ 40 C.F.R. § 261.31(a).

²⁹ The concentration cutoff was added to these listings in 1985 (see 50 Fed. Reg. 53316 (Dec. 31, 1985)), and hence was in place when Congress comprehensively amended CERCLA in 1986 – but Congress did not alter the statute to preclude it. Other RCRA listings that incorporate numerical cutoffs into the narrative include F024 & F025.

CERCLA Section 101(14)(E) incorporates Clean Air Act “hazardous air pollutants” (HAPs) into the definition of “hazardous substance.” Many of these HAP listings also incorporate exclusions. For example, the “glycol ethers” listing has endnote “d,” which among other things limits the associated radicals to alkyls of C7 or less.³⁰ So an alkyl C8 glycol ether would not be a hazardous substance. Similarly, the “polycyclic organic matter” listing has endnote “e,” which excludes materials with a boiling point of less than 100° C. So polycyclic organic matter with a boiling point of 90° C would not be a hazardous substance. The Agency could adopt the same approach to implement an exclusion for PFOA and PFOS contained in paper mill residuals – the PFOA and PFOS listings could have their own endnote “g” that explains the exclusion.

4. If Need Be, EPA Can Limit the Exclusion to Cases Where PFOA and PFOS Are Present in Paper Mill Residuals at Concentrations Comparable to Concentrations in Other Fertilizers and Soil Conditioners

The Part 503 rules stated that biosolids fell within the fertilizer exclusion whenever they met permissible loading rates for nine metals and certain other management practices and operational standards.³¹ While no EPA program sets standards for paper mill residuals comparable to those contained in the Part 503 rules, many state programs do set such standards, and EPA has commended such programs as “largely successful.”³²

The Part 503 rule does not currently contain standards for PFOA or PFOS. EPA is currently embarked on a multipathway risk assessment designed to serve as the basis for an update of the Part 503 standards, and this update could set standards for PFOA and PFOS, according to the Agency’s *PFAS Strategic Roadmap*.³³ But the *Roadmap* does not project those standards to be issued until winter 2024, and a rulemaking on the topic is not even on the Long-Term Actions portion of EPA’s Regulatory Agenda.³⁴ EPA still has two options, however, that would allow the continued beneficial land application of both biosolids and paper mill residuals:

³⁰ See 40 C.F.R. § 302.4, Table 302.4.

³¹ 58 Fed. Reg. 9262.

³² See 67 Fed. Reg. 48393 (July 24, 2002).

³³ See EPA, *PFAS Strategic Roadmap: EPA’s Commitments to Action 2021-2024* (Oct. 18, 2021), at 16.

³⁴ See

https://www.reginfo.gov/public/do/eAgendaHistory?operation=OPERATION_GET_PUBLICATION&showStage=long term¤tPubId=202204.

- First, the final hazardous substance listings could simply exclude PFOA and PFOS contained in biosolids and paper mill residuals that are beneficially land applied as a fertilizer or soil conditioner, and EPA could reserve the right to set PFOA and PFOS levels at a future date.
- Second, the final listing rule could provide that PFOA and PFOS contained in biosolids and paper mill residuals that are beneficially land applied are excluded as constituting “the normal application of fertilizer” *whenever the levels of PFOA and PFOS in those materials are comparable to the levels found in the fertilizers for which they would be substituted*. This approach would be an application of the “identity principle,” which EPA has relied on for forty years to define the limits of RCRA jurisdiction. Under this principle, waste-derived materials are not “solid wastes” when those materials contain hazardous constituents at levels that are “typical” for the commercial materials for which they are substituted.³⁵ EPA has applied this logic specifically in the case of fertilizers, excluding zinc fertilizers made from hazardous secondary materials from the definition of solid waste when their chemical makeup is “essentially identical” to that of zinc fertilizers made from virgin materials.³⁶ The ultimate basis of this logic is that “any potential risks posed by hazardous and non-hazardous zinc feedstock materials would be substantially similar.”³⁷ This risk-based approach has been repeatedly upheld by the D.C. Circuit.³⁸

Given the widespread presence of PFOA and PFOS in environmental matrices, EPA’s exercise of one or the other of these options is necessary, as a practical matter, to avoid the unintended outcome of disrupting the established practices of land applying biosolids and paper mill residuals.³⁹

5. Including the Fertilizer Exclusion in Rule Text would be a Logical Outgrowth of the Proposed Rule

³⁵ 67 Fed. Reg. 48393, 48402 (July 24, 2002).

³⁶ See 65 Fed. Reg. 70954, 70957 (Nov. 28, 2000).

³⁷ *Id.* at 70959.

³⁸ See *Safe Food and Fertilizer v. EPA*, 350 F.3d 1263, 1269-71 (D.C. Cir. 2003) (upholding the zinc fertilizer exclusion from the definition of solid waste); *American Petroleum Institute v. EPA*, 862 F.3d 50, 59-61 (D.C. Cir. 2017) (reaffirming the logic of *Safe Food* where constituent levels are “comparable”).

³⁹ As a legal matter, EPA action is not necessary in order for beneficial land application of paper mill residuals and biosolids to fall within the fertilizer exclusion, since that exclusion is contained in the statute and can be construed by a court. See *Kelley v. United States*, 15 F.3d 1100, 1107 (1994). But EPA rulemaking on the topic would be vastly preferable, as it would hugely reduce the uncertainty and economic disruption that will otherwise flow from a hazardous substance listing of PFOA and PFOS.

EPA did not propose the exclusion we are requesting. But finalizing the exclusion would not violate the case law rule that a final rule must be a “logical outgrowth” of the proposed rule. The basic formulation of the logical outgrowth standard asks whether “interested parties could . . . reasonably have anticipated the final rulemaking from the [proposal].”⁴⁰ Here, EPA has proposed a broadly inclusive listing under a statute that incorporates multiple broad, well-known exclusions, including the fertilizer exclusion and the petroleum exclusion. Interested persons can reasonably anticipate that affected entities will ask EPA to implement those exclusions in the final rule. Water systems, for example, have been actively advocating for an exemption from any CERCLA listing.⁴¹ Codifying the fertilizer exclusion into the CERCLA listing would not be the Agency “completely chang[ing] its position”⁴² or “abandoning [its] proposed regulatory approach.”⁴³

Notably in this context, the Supreme Court’s first decision adopting the logical outgrowth test involved an agency finalizing an exemption that was not contained in the proposal. In *Long Island Care at Home, Ltd. v. Coke*,⁴⁴ the Labor Department borrowed an exemption from minimum wage and maximum hour requirements and extended it to “companionship services” supplied by third-party agency employees:

Since the proposed rule was simply a proposal, its presence meant that the Department was *considering* the matter; after that consideration the Department might choose to adopt the proposal or to withdraw it. As it turned out, the Department did withdraw the proposal for special treatment of employees of “covered enterprises.” The result was a determination that exempted *all* third-party-employed companionship workers from the Act. We do not understand why such a possibility was not reasonably foreseeable.⁴⁵

Finally, the fact that comments such as these urge EPA to create an exclusion in the listing shows that the issue is reasonably foreseeable:

⁴⁰ See *Nat’l Ass’n of Mfrs. v. MSHA*, 116 F.3d 520, 531 (D.C. Cir. 1997).

⁴¹ See “Lawyer Touts CERCLA Waivers for Biosolids as EPA Readies PFAS Rule,” *supra*; see also letter from water sector associations to congressional committee leadership re “Necessity of Protecting Water Systems from CERCLA Liability for PFAS” (April 28, 2022), available at https://www.nacwa.org/docs/default-source/resources---public/cercla-water-system-hill-letter-4-28-22.pdf?sfvrsn=4dfcc461_2.

⁴² *CSX Transportation, Inc. v. Surface Transportation Board*, 584 F.3d 1076, 1081 (D.C. Cir. 2009).

⁴³ *Int’l Union, United Mine Workers of Am. v. MSHA*, 407 F.3d 1250, 1260 (D.C. Cir. 2005).

⁴⁴ 551 U.S. 158 (2007).

⁴⁵ *Id.* at 175 (emphasis in original).

Numerous commenters — including two that are among the Industry Petitioners here — filed comments that were critical of the distinction between refractory and nonrefractory units. On the other side, Northeast Maryland's predecessor, WEP, filed comments that supported the distinction. Accordingly, we reject Northeast Maryland's contention that the evolution of the rule deprived it of adequate notice and an opportunity to comment.⁴⁶

Accordingly, EPA should not feel constrained from implementing the requested exclusion in the CFR text of the listing descriptions.

6. Incorporating Exclusions into the CERCLA Listings is not “Exemp[ting] Particular Entities from Liability”

Slide 6 of EPA's slides for its presentation to the Small Business Administration's Environmental Roundtable meeting on October 7, 2022, says: “EPA does not have authority to exempt particular entities from liability.” *That is not what we are asking.*

EPA's statement is no doubt motivated by *Kelley v. United States*,⁴⁷ a prominent decision by the D.C. Circuit declaring that courts, not EPA, get to determine liability under CERCLA. The case involved EPA's 1992 lender liability rule, which exempted lenders from owner or operator liability under certain circumstances. As statutory authority to issue that rule, the Agency pointed to its “housekeeping” authorization in Section 115, general language in CERCLA Section 105 about EPA's authority “to reflect and effectuate the responsibilities and powers created by” CERCLA, aspects of Section 107, and the reimbursement provisions of Section 106.⁴⁸ The court disagreed, holding broadly that none of these provisions gave EPA “authority to, by regulation, define liability for a class of potential defendants.”⁴⁹

But we are not asking EPA to issue a liability exemption rule under Section 107 (or any other section of CERCLA). To be precise, we are asking EPA, in a hazardous substance listing rule under Section 102(a), to exclude, from the regulatory listing of PFOA and PFOS in Table 302.4 of the CERCLA regulations, PFOA and PFOS under certain circumstances, i.e., when they are contained in paper mill residuals that are beneficially land applied as a fertilizer or soil conditioner. As explained above, unlike all the CERCLA

⁴⁶ *North East Maryland Waste Disposal Auth. v. EPA*, 358 F.3d 936, 952 (D.C. Cir. 2004) (citations omitted).

⁴⁷ 15 F.3d 1100 (D.C. Cir. 1994).

⁴⁸ *Id.* at 1105-1106.

⁴⁹ *Id.* at 1107.

provisions invoked in *Kelley*, Section 102(a) *does* present “explicit . . . evidence of congressional intent to delegate interpretive authority.”⁵⁰ Its authorization that EPA “shall promulgate and revise as may be appropriate, regulations designating as hazardous substances”⁵¹ gives EPA clear authority to exclude PFOA and PFOS from a listing regulation when they are contained in paper mill residuals that are beneficially land applied.

C. At a Minimum, the Preamble of the Final Rule Should Announce EPA’s Interpretation of the Fertilizer Exclusion as Excluding PFOA and PFOS When Either Is Contained in Paper Mill Residuals That Are Beneficially Land Applied as a Fertilizer or Soil Conditioner.

As noted earlier, the preamble to the 1993 Part 503 standards for biosolids announced EPA’s interpretation of the fertilizer exclusion to provide that land application of municipal biosolids as a fertilizer or soil conditioner is not a release of hazardous substances, if the biosolids meet enumerated specifications:

Today’s rule, as previously noted, establishes standards for sewage sludge when applied to the land for a beneficial purpose (i.e., as a fertilizer substitute or soil conditioner). Sludge placed on the land for such beneficial purpose and applied in compliance with the requirements for land application of sewage sludge provided in §§ 503.13(b) (2) and (4), § 503.14 and § 503.15 (where applicable) of the final rule today, and in accordance with accepted agricultural practices using appropriate application rates, which constitutes the normal application of fertilizer, does not constitute a “release.”⁵²

EPA reiterated this interpretation a year later (and after issuance of the *Kelley* decision), in its “Plain Language Guide to the EPA Part 503 Biosolids Rule”:

Landowners (including their lenders) and leaseholders who use biosolids beneficially as a fertilizer substitute or soil conditioner in accordance with EPA’s Part 503 rule are protected from liability under the Superfund legislation (Comprehensive Environmental Response, Compensation and Liability Act-CERCLA) (see 58 Federal Register 9262, February 19, 1993) as well as any enforcement action from EPA under the Part 503 rule. Where the Federal

⁵⁰ *Id.* at 1105, quoting *Linemaster Switch Corp. v. EPA*, 938 F.2d 1299, 1303 (D.C. Cir. 1991).

⁵¹ 42 U.S.C. § 9602(a).

⁵² 58 Fed. Reg. 9262.

requirements are not followed, applicators of biosolids are vulnerable to EPA enforcement actions or citizen-initiated suits and can be required to remediate any problems for which they are found liable.⁵³

It would be far better, for multiple reasons, if the final C.F.R. text in this rulemaking were to contain an exclusion for PFOA and PFOS contained in paper mill residuals that are beneficially land applied. If EPA does not do that, the Agency can and should follow the precedent of the Part 503 rules and propound our recommended exclusion in the preamble to final rule, as an interpretation of the fertilizer exclusion. If necessary, EPA could limit the exclusion to cases where PFOA and PFOS are present at concentrations in the residuals comparable to biosolids and other fertilizers and soil conditioners.

As an interpretive rule, this interpretation would be entitled to deference – as *Kelley* noted, EPA is free to issue interpretive rules, “based on specific statutory provisions [of CERCLA,] represent[ing] the agency’s construction of the statute.”⁵⁴

III. Section 102(a) Requires Consideration of Costs in Making the Listing Decision.

EPA claims that Section 102(a) “precludes” the Agency from considering costs in promulgating hazardous substance listings. It first evaluates the text of the statute in light of relevant case law, and then looks for illumination among the five other statutory provisions cross-referenced in the CERCLA definition of “hazardous substance.”⁵⁵ As shown below, EPA misconstrues both of these sources of authority. In fact, to the contrary, the statutory text and Supreme Court precedent *require* EPA to consider costs. So did at least one of the other statutory provisions at the time of CERCLA’s enactment, while another allowed it, then and now.

A. In Light of Supreme Court Case Law, Section 102(a)’s Use of “Appropriate” Requires EPA To Consider Costs in Designating Hazardous Substances

⁵³ See EPA/832/R-93/003 (Sept. 1994), at 52-53. Available at <https://www.epa.gov/sites/production/files/2018-12/documents/plain-english-guide-part503-biosolids-rule.pdf>.

⁵⁴ See 15 F.3d at 1107-1108.

⁵⁵ See 87 Fed. Reg. at 54421-54423.

Under a line of cases from *State Farm*⁵⁶ to *Entergy Corp. v. Riverkeeper, Inc.*⁵⁷ to *Michigan v. EPA*,⁵⁸ agencies must weigh cost and benefits in setting regulatory standards, absent explicit statutory text to the contrary.⁵⁹

Nothing in the language of Section 102(a) precludes EPA from considering cost. To the contrary, by directing EPA to promulgate or revise designations of hazardous substances “as may be appropriate,” that provision requires EPA to consider costs. In *Michigan v. EPA*, the Supreme Court declared that “appropriate” is the kind of “capacious” language that requires the consideration of all relevant factors, including cost. As the *Michigan* majority concluded, in construing statutory language requiring EPA to regulate where “appropriate and necessary,” “no regulation is ‘appropriate’ if it does significantly more harm than good.”⁶⁰ Indeed, all nine justices in *Michigan* agreed that “[c]ost is almost always a relevant—and usually, a highly important—factor in regulation. Unless Congress provides otherwise, an agency acts unreasonably in establishing ‘a standard-setting process that ignore[s] economic considerations.’”⁶¹ The preamble to the proposed rule omits “appropriate” the first two times it paraphrases the statute.⁶² But on page 54422, the preamble concedes that Section 102(a) “does use the word ‘appropriate.’”

As the *Michigan* majority explained, “[a]gencies have long treated cost as a centrally relevant factor when deciding whether to regulate. Consideration of cost reflects the understanding that reasonable regulation ordinarily requires paying attention to the advantages *and* disadvantages of agency decisions.”⁶³ Under multiple executive orders issued by the previous two Democratic presidents, for any rulemaking, the agency must ensure that (i) the benefits of the rule justify the costs and (ii) the rule maximizes net benefits, “to the extent permitted by law.”⁶⁴ Agencies must “tailor [their] regulations to impose the least burden on society, . . . taking into account . . . the costs of cumulative regulations.”⁶⁵ The Office of Information and Regulatory Affairs in the White House Office of Management and Budget required EPA to designate this rulemaking as

⁵⁶ *Motor Vehicle Mfrs. Ass’n, Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29 (1983).

⁵⁷ 556 U.S. 208 (2009).

⁵⁸ 135 S.Ct. 2699 (2015).

⁵⁹ The development of this requirement through the Court’s caselaw is thoroughly documented in Paul R. Noe and John D. Graham, “The Ascendancy of the Cost-Benefit State?,” 5 ADMIN. L. REV. ACCORD 85 (2020).

⁶⁰ 135 S.Ct. at 2707.

⁶¹ *Id.* at 2716-2717 (Kagan, J., dissenting).

⁶² See 87 Fed. Reg. 54415, 54420-54421.

⁶³ 135 S.Ct. at 2707 (emphasis in original).

⁶⁴ See E.O. 12866, §§ 1(a) & (1)(b)(6); E.O. 13563, § 1(b).

⁶⁵ E.O. 13565, § 1(b).

economically significant, triggering the additional requirement that EPA (i) prepare and consider a cost-benefit analysis and (ii) consider potentially effective and reasonably feasible alternatives.⁶⁶ Paraphrasing the *Michigan* majority opinion, “[a]gainst the backdrop of this established administrative practice, it is unreasonable to read an instruction to an administrative agency to determine whether [regulating a substance as a hazardous substance is ‘appropriate’] as an invitation to ignore cost.”⁶⁷

EPA says “the word ‘appropriate’ is not used in the context of what EPA should consider when assessing whether a substance is hazardous.”⁶⁸ That is true – the word “appropriate” is used in the context of *whether EPA should “designate” a substance under CERCLA Section 102(a)* – the ultimate issue in this rulemaking.⁶⁹ As shown above, EPA is required to consider costs in determining whether to make that designation.

The preamble for the proposed rule does not address the potential impact of the hazardous substances designations on biosolids or mill residuals, nor does it analyze the questions on the impact of the proposed designations on municipal biosolids or mill residuals. If the designation created significant stigma and perceived risk about continuing to use mill residuals as soil amendments, and mill residuals were sent to Subtitle C landfills, the impacts could be very substantial. For example, an economic analysis prepared for AF&PA indicates that the potential cost for the paper industry, including potential need to send mill residuals to Subtitle C landfills and a potential need to construct landfills at paper mills, could be: (1) in a moderate case, \$300 million in operating costs per year, \$2.2 billion in capital costs for construction of landfills, and \$573 million amortized annually; and (2) in a worst case, \$366 million in operating costs per year, \$3.3 billion in capital costs, and \$776 million amortized annually. This potentially could jeopardize high-paying mill jobs well above the prevailing wage in small rural communities – without providing an appreciable benefit.

In addition to this unnecessary and severe economic impact, the designations could have serious environmental and health costs. For example, one unintended outcome could be to significantly overburden currently available and future landfill capacities for material that provides a safe and beneficial soil amendment. Transporting these materials to Subtitle C hazardous waste sites also potentially could require a huge effort,

⁶⁶ *Id.* § 6(a)(3)(C).

⁶⁷ 135 S.Ct. at 2708.

⁶⁸ 87 Fed. Reg. 54423.

⁶⁹ See 42 U.S.C. § 9602(a) (“The Administrator shall promulgate and revise as may be *appropriate*, regulations *designating* as hazardous substances”)(emphasis added).

on the order of 250,000 dump trucks (carrying 20 tons each) traveling 500 miles each year. The result could be a significant increase in emissions of greenhouse gases and conventional air emissions, as well as increased vehicle accident risks and more traffic in disadvantaged communities. Given current truck driver shortages, this also could disrupt the supply chain.

B. The Five Statutory Provisions Listed in the CERCLA Definition of “Hazardous Substance” Do Not Uniformly Preclude Consideration of Costs

In arguing that Section 102(a) precludes consideration of costs, EPA claims that the five statutory provisions cross-referenced in CERCLA’s definition of “hazardous substance” (42 U.S.C. § 9601(14)(A), (C), (D), (E), and (F)) preclude consideration of costs. EPA claims that “[u]nder the other statutory provisions, that program’s compliance costs are not considered a factor or criteria in making listing decisions”⁷⁰ Both statements are incorrect.

1. TSCA Section 7

Costs *were* relevant under Section 7 of the Toxic Substances Control Act (TSCA) as it stood in 1980, when CERCLA was enacted. That section then defined an “imminently hazardous chemical substance or mixture” as one that “present[ed] an imminent *and unreasonable* risk of serious or widespread injury to health or the environment.”⁷¹ “Imminent” was further defined as “likely to result in injury to health or the environment before a final rule *under section 2605* of this title can protect against such risk.”⁷² Section 2605 was (and still is) the mechanism by which EPA can take action against substances posing “unreasonable risk.” In 1980, for EPA to issue a rule concluding that a substance presented “unreasonable risk,” EPA had to consider “the reasonably ascertainable economic consequences of the rule.”⁷³ So an “imminently hazardous substance or mixture” in 1980 was one that posed an unreasonable risk, taking into account the costs of regulating that risk. CERCLA Section 101(14)(F) thus does not demonstrate congressional intent to prevent EPA from considering costs under Section 102(a).

⁷⁰ 87 Fed. Reg. 54423.

⁷¹ 15 U.S.C. § 2606(f) (1976) (emphasis added).

⁷² *Id.* (emphasis added).

⁷³ *Id.* § 2605(c)(1)(D) (1976).

2. CWA Section 311(b)(2)(A)

Congress obviously modeled CERCLA Section 102(a) very closely on Clean Water Act (CWA) Section 311(b)(2)(A), which provides that “[t]he Administrator shall develop, promulgate, and revise as may be appropriate, regulations designating hazardous substances” That provision also does not preclude consideration of costs when EPA designates substances under it. To the contrary, in interpreting this precedential provision, EPA has determined that it is “appropriate” for the Agency to consider factors beyond toxicity, including cost, when deciding whether to list or delist a substance under CWA Sec. 311(b)(2)(A). In fact, EPA did this in *the original 1978 implementing regulations for that provision*. After developing an initial list of substances meeting the CWA Section 311 toxicity criteria, EPA screened that list down “to a practical number” based on “discharge potential,” as determined by a number of factors, including the “cost of the substance.”⁷⁴

EPA likewise considered costs in a rulemaking removing ammonium thiosulfate from both the CWA and CERCLA hazardous substance listings in 1989. Two features of this rulemaking are notable. First, EPA evaluated the ammonium thiosulfate listing under both the CWA *and CERCLA*, contrary to EPA’s claim that, “[w]hen EPA adds a substance or chemical for regulation under any of those other statutory provisions, it also becomes a CERCLA hazardous substance --without considering the resulting costs under CERCLA.”⁷⁵ As the preamble made clear, EPA evaluated the delisting under both statutes:

EPA agrees with the commenters that ammonium thiosulfate does not meet the [CWA 311] listing criteria for aquatic toxicity. In addition, the Agency has analyzed ammonium thiosulfate under the primary criteria other than aquatic toxicity and determined that there is no independent basis for listing this substance as hazardous under CERCLA section 102.⁷⁶

Second, EPA expressly considered costs in that joint CWA/CERCLA rulemaking. After noting that the substance did not meet applicable toxicity criteria, the Agency noted that “[f]ive commenters stated that the current classification of ammonium thiosulfate

⁷⁴ See 43 Fed. Reg. 10474, 10474-10475, 10478 (March 13, 1978).

⁷⁵ 87 Fed. Reg. 54423.

⁷⁶ 54 Fed. Reg. 33441.

as a hazardous substance has resulted in increased insurance costs to transport this substance.”⁷⁷

CERCLA Section 101(14)(A) thus does not demonstrate congressional intent to prevent EPA from considering costs under Section 102(a).

Accordingly, EPA is not uniformly prohibited from considering costs under the other provisions listed in the CERCLA definition of “hazardous substance,” most notably the one on which CERCLA Section 102(a) was modeled.

IV. Even if EPA Were Not Required to Consider Costs in Promulgating Section 102 Hazardous Substance Listings, the Agency Has Discretion to Do So – And Must Explain Its Decision Making on That Point

At a minimum, Congress’ use of “appropriate” in § 102(a), in light of case law, means that EPA possesses discretion to consider costs in designating hazardous substances under that authority. In *Entergy Corp. v. Riverkeeper, Inc.*, the Supreme Court construed a provision of the Clean Water Act requiring that a class of cooling water intake structures “reflect the best technology available for minimizing adverse environmental impact” to determine whether that language allowed EPA to base standards in part on a cost-benefit analysis, as the Agency contended, or prohibited it, as the petitioner environmental groups argued. Finding the provision to be silent on the topic, the Court agreed with EPA, declaring that “[i]t is eminently reasonable to conclude that § 1326(b)’s silence is meant to convey nothing more than a refusal to tie the agency’s hands as to whether cost-benefit analysis should be used, and if so to what degree.”⁷⁸

Even assuming, *arguendo*, that “appropriate” did not require consideration of costs in this rulemaking, it at least would allow it. That conclusion is supported by the D.C. Circuit’s recent decision in *Utility Solid Waste Action Group v. EPA*, which addressed whether RCRA Subtitle D authorizes EPA to consider costs in rulemakings under it. In declining to adopt that construction, the court said: “Nor is there any flexible language such as ‘appropriate and necessary’ that might allow EPA to consider costs in its rulemaking.”⁷⁹ Here, there is exactly such language.

⁷⁷ See 54 Fed. Reg. 33426, 33441 (Aug. 14, 1989).

⁷⁸ 556 U.S. 208, 222 (2009).

⁷⁹ 901 F.3d 414, 449 (D.C. Cir. 2018).

Further, as noted above, of the five other statutory provisions listed in the CERCLA definition of “hazardous substance,” one of them required EPA to consider costs in listing chemicals under it at the time CERCLA was enacted, and another – the model for Section 102(a) – permitted consideration of costs then and still does.

At a minimum, therefore, EPA possesses discretion to consider costs when it makes a designation of PFOA or PFOS under Section 102(a). Cost is a highly relevant and important factor in deciding whether it is “appropriate” to list PFOA and PFOS as hazardous substances, with far-reaching economic consequences. It would be arbitrary and capricious for EPA to finalize such a designation without providing a reasoned explanation of how and why it exercised that discretion. That is particularly the case now that comments such as these have teed up the issue.⁸⁰ In that respect, this rulemaking bears an uncanny similarity to the fuel economy standards at issue in *Center for Biological Diversity v. National Highway Traffic Safety Administration* (NHTSA).⁸¹ In that case, the court “agree[d] with NHTSA that EPCA neither requires nor prohibits the setting of standards at the level at which net benefits are maximized[, and thus] that NHTSA has discretion to balance the oft-conflicting factors in [the statute] when determining “maximum feasible” CAFE standards.”⁸² Nonetheless, the court added: “We must still review whether NHTSA’s balancing of the statutory factors is arbitrary and capricious.”⁸³ The court then concluded that NHTSA had acted arbitrarily and capriciously, undervaluing benefits while overvaluing costs, and by assigning no value to carbon emissions benefits that clearly existed, albeit in a range, while quantifying other benefits.⁸⁴ Similarly, the court struck down NHTSA’s decision not to close the “SUV loophole,” holding that, while “the Secretary has discretion to decide what constitutes a ‘passenger automobile,’” “NHTSA has not provided a reasoned explanation of why an orderly transition to Reformed CAFE could not be accomplished at the same time that the passenger automobile/light truck definitions are revised.”⁸⁵ EPA has the opportunity to avoid NHTSA’s fate by providing a reasoned explanation of how it exercised its discretion to consider costs in this rulemaking.

Conclusion

⁸⁰ See *Encino Motorcars*, 136 S.Ct. at 2126.

⁸¹ 538 F.3d 1172 (9th Cir. 2008).

⁸² 538 F.3d at 1197.

⁸³ *Id.*

⁸⁴ *Id.* at 1194-1198.

⁸⁵ *Id.* at 1206-1209.

AF&PA appreciates the opportunity to submit these comments on EPA's proposed rule to list PFOA and PFOS as hazardous substances under CERCLA. We thank you for your careful consideration of them. If you have questions or need more information, please feel free to contact me at 202-463-2700 or Paul_No@afandpa.org.

Best regards,

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