



Know your environment.  
Protect your health.

November 07, 2022

**Submitted via [www.regulations.gov](http://www.regulations.gov)**

Mr. Barry Breen  
Acting Assistant Administrator, Office of Land and Emergency Management  
U.S. Environmental Protection Agency  
1200 Pennsylvania Ave. NW  
Washington, DC 20460-0001

**Re: Designation of PFOA/PFOS as CERCLA Hazardous Substances  
EPA-HQ-OLEM-2019-0341**

The Environmental Working Group strongly supports the EPA's Proposed Designation of perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) and their salts and structural isomers as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act, or CERCLA.

Contamination from the class of chemicals known as per- and polyfluoroalkyl substances, or PFAS, is an urgent public health crisis. The use of PFAS across multiple industries is ubiquitous, and experts have identified more than 1,400 individual PFAS in over 200 use categories.<sup>1</sup> A peer-reviewed analysis identifies a staggering 41,862 potential PFAS dischargers.<sup>2</sup> Another analysis published in October 2022 identifies as many as 57,000 dischargers.<sup>3</sup> The Environmental Working Group has identified 2,854 sites contaminated with PFAS chemicals in 50 states,<sup>4</sup> and estimates that more than 200 million Americans may have PFAS in their drinking water.<sup>5</sup>

For more than 50 years, facilities have manufactured, processed, used, and disposed of PFAS with impunity. Once in the environment, PFAS are highly mobile and do not break down – thus leading to the characterization of PFAS as “forever chemicals.”<sup>6</sup> Today, PFAS contaminate ground and surface water used for drinking water. PFAS pollutes the water used to irrigate crops

---

<sup>1</sup> Juliane Glüge et al., *An Overview of the Uses of Per- and Polyfluoroalkyl Substances (PFAS)*, 22 ENV'T. SCI. PROCESSES 2345 (2020), <https://pubs.rsc.org/en/content/articlepdf/2020/em/d0em00291g>.

<sup>2</sup> David Andrews et al., *Identification of Point Source Dischargers of Per and Polyfluoroalkyl Substances in the United States*, AWWA WATER SCIENCE 1252 (2021), <https://doi.org/10.1002/aws2.1252>

<sup>3</sup> Derrick Salvatore et al., *Presumptive Contamination: A New Approach to PFAS Contamination Based on Likely Sources*, ENV'T SCI. & TECHNOL. LETTERS (2022), <https://pubs.acs.org/doi/10.1021/acs.estlett.2c00502>.

<sup>4</sup> See Env't Working Grp., *PFAS Contamination in the U.S.*, <https://www.ewg.org/interactive-maps/pfas-contamination/> (last updated June 08, 2022).

<sup>5</sup> David Q. Andrews & Olga Naidenko, *Population-Wide Exposure to Per- and Polyfluoroalkyl Substances from Drinking Water in the United States*, 7 ENV'T SCI. & TECH. LETTERS 931 (2020), <https://pubs.acs.org/doi/10.1021/acs.estlett.0c00713>.

<sup>6</sup> Joseph Allen, *These Toxic Chemicals are Everywhere—Even in your Body. And They Won't Ever Go Away*, WASHINGTON POST (Jan. 2, 2018), [https://www.washingtonpost.com/opinions/these-toxic-chemicals-are-everywhere-and-they-wont-ever-go-away/2018/01/02/82e7e48a-e4ee-11e7-a65d-1ac0fd7f097e\\_story.html](https://www.washingtonpost.com/opinions/these-toxic-chemicals-are-everywhere-and-they-wont-ever-go-away/2018/01/02/82e7e48a-e4ee-11e7-a65d-1ac0fd7f097e_story.html).

and sewage sludge used to fertilize farmland.<sup>7</sup> PFAS builds up in animals like fish, deer, and cows exposed to PFAS-contaminated water or feed. In some cases, residents have been warned not to eat fish<sup>8</sup> or deer<sup>9</sup> and some farmers have had to euthanize their cattle because of PFAS contamination.<sup>10</sup> Eighteen states have consumption advisories for fish and other wildlife.

As a result, Americans are exposed to PFAS every day – through our food, water, air, dust, carpets, clothing, and cosmetics. PFAS are in the blood and organs of nearly every living being, and experts estimate that 25 percent of Americans have troubling levels of PFAS in their blood serum.<sup>11</sup> Because PFAS can have a long half-life in our bodies, they can stay in blood and organs for decades.

PFAS pollution is particularly concerning for low-income communities and communities that face historically disproportionate exposure to pollution, cumulative adverse health effects of multiple co-occurring contaminants, and potentially insurmountable costs of water treatment or remediation. Research suggests that communities where most residents are people of color may be especially affected by PFAS.<sup>12</sup> Indigenous communities that rely on subsistence fishing, hunting, and agriculture are especially vulnerable when fish, wildlife, and crops are contaminated with PFAS. EPA’s proposed designation aligns with EPA’s commitment to advance environmental justice by addressing historical contamination and deterring ongoing releases of these toxic chemicals into the environment.

The two most notorious PFAS compounds are the subject of this rulemaking: PFOA, formerly manufactured and used by DuPont to make Teflon, and PFOS, formerly an ingredient in 3M’s Scotchgard.

---

<sup>7</sup> See, e.g., Rosella Ghisi, Teofilo Vamerli, & Sergio Manzetti, *Accumulation of Perfluorinated Alkyl Substances (PFAS) in Agricultural Plants: A Review*, 169 ENV’T RESEARCH 326 (2019), <https://www.ncbi.nlm.nih.gov/pubmed/30502744>.

<sup>8</sup> Michigan Dep’t of Env’t, Great Lakes, & Energy, PFAS in Fish, [https://www.michigan.gov/pfasresponse/0,9038,7-365-86512\\_88987\\_88989---,00.html](https://www.michigan.gov/pfasresponse/0,9038,7-365-86512_88987_88989---,00.html) (last visited May 16, 2021).

<sup>9</sup> Michigan Dep’t of Env’t, Great Lakes, & Energy, PFAS in Deer, [https://www.michigan.gov/pfasresponse/0,9038,7-365-86512\\_88981\\_88982---,00.html](https://www.michigan.gov/pfasresponse/0,9038,7-365-86512_88981_88982---,00.html) (last visited May 16, 2021).

<sup>10</sup> See Amy Linn, *This Has Poisoned Everything—Pollution Casts Shadow Over New Mexico’s Booming Dairy Industry*, THE GUARDIAN (February 20, 2019), <https://www.theguardian.com/us-news/2019/feb/20/new-mexico-contamination-dairy-industry-pollution>.

<sup>11</sup> Ctrs. for Disease Control & Prevention, Nat’l Biomonitoring Program, Per- and Polyfluorinated Substances (PFAS) Factsheet, [https://www.cdc.gov/biomonitoring/PFAS\\_FactSheet.html](https://www.cdc.gov/biomonitoring/PFAS_FactSheet.html) (last reviewed May 02, 2022). See also David Andrews, *Insight: The Case for Regulating All PFAS Chemicals as a Class*, BLOOMBERG ENV’T (May 20, 2019), <https://news.bloombergenvironment.com/environment-and-energy/insight-the-case-for-regulating-all-pfas-chemicals-as-a-class/>.

<sup>12</sup> See, e.g., Susan Lee, Avinash Kar & Anna Reade, *Dirty Water: Toxic “Forever” PFAS Chemicals are Prevalent in the Drinking Water of Environmental Justice Communities*, NAT. RES. DEF. COUNCIL (2021), <https://www.nrdc.org/sites/default/files/dirty-water-pfas-ej-communities-report.pdf>; Genna Reed, *PFAS Contamination is an Equity Issue and President Trump’s EPA is Failing to Fix It*, UNION OF CONCERNED SCIENTISTS (Oct. 30, 2019), <https://blog.ucsusa.org/genna-reed/pfas-contamination-is-an-equity-issue-president-trumps-epa-is-failing-to-fix-it/>.

Due to historical use, past releases, and persistence in the environment, PFOA and PFOS will present an ongoing threat to land, water, and communities until the chemicals are proactively cleaned up.

The Comprehensive Environmental Response Compensation and Liability Act, or CERCLA, is the nation's primary cleanup law and one of the most critical legal tools for addressing the PFAS contamination crisis. We strongly support the EPA's step to designate PFOA and PFOS as hazardous substances. While the EPA can already take response actions to address PFOA and PFOS as "pollutants or contaminants" designating PFOA and PFOS as hazardous substances will substantially strengthen the EPA's authority and accelerate cleanups. As the EPA works to finalize the rule, we comment that:

- PFOA and PFOS clearly meet the statutory criteria for hazardous substance designation
- The EPA cannot consider cost when making a hazardous substance determination
- CERCLA designation is urgently needed to give the EPA tools to advance cleanups
- CERCLA designation will be minimally expensive
- Hazardous substance designation will provide critical public benefits and cost savings
- The EPA does not have authority to grant exemptions
- The EPA has multiple tools available to ensure that polluters are held accountable, not innocent parties
- The EPA should lower the reportable quantity
- The EPA should update the regional screening levels to reflect the latest science
- The EPA should designate additional PFAS as CERCLA hazardous substances
- The EPA should act quickly to address PFAS under RCRA and other cleanup programs
- Hazardous substance designation is needed to ensure that military installations and defense communities are cleaned up
- The EPA must also prioritize source reduction to prevent future contamination

### **PFOA and PFOS clearly meet the statutory criteria for hazardous substance designation**

The EPA has clear authority to designate new hazardous substances under section 102(a) of CERCLA. Section 102(a) states in relevant part that the EPA may designate "such elements, compounds, mixtures, solutions, and substances which, when released into the environment may present substantial danger to the public health or welfare or the environment."<sup>13</sup>

Although this is the first time that the EPA has used this authority to designate new substances, PFOA and PFOS clearly meet the statutory elements. PFOA and PFOS constitute "elements, compounds, mixtures, solutions, and substances." PFOA and PFOS can also be released into the environment. They have been found at more than 2,800 sites across the country and contaminate the drinking water of more than 200 million Americans. PFOA and PFOS have been measured in

---

<sup>13</sup> 42 U.S.C. § 9602(a).

outdoor<sup>14</sup> and indoor air<sup>15</sup> as well as household dust. PFOA and PFOS have been detected in several landfill studies.<sup>16</sup>

There is well-established scientific evidence that PFOA and PFOS “may present substantial danger to the public health or welfare or the environment.” We strongly agree with the EPA’s proposal to interpret “may present” as indicating Congress did not require certainty that the substance presents a substantial danger or require proof of actual harm.<sup>17</sup>

Recently, when Congress overhauled the Toxic Substances Control Act in 2016, it expanded the EPA’s authority to act when a chemical substance “*may present* an unreasonable risk to human health or the environment.” For example, the EPA makes a “may present an unreasonable risk” finding when prioritizing existing chemicals for further risk evaluation. As explained by the committee report, “The standard for making this determination is broad and flexible because its application precedes the detailed scientific risk evaluation that it triggers.”<sup>18</sup> In other words, Congress did not intend the “may present” finding to require certainty, but instead to be flexible in part because it is a threshold finding triggering a more in-depth investigation. Courts have found the “may present” language in TSCA “empowers the EPA to act at a lower threshold of certainty than that required for regulation.”<sup>19</sup>

Likewise, section 7003, the imminent hazard provision of RCRA allows the EPA to bring suit when a hazardous material “*may present* an imminent and substantial endangerment to health or the environment.”<sup>20</sup> Section 7003 of RCRA was amended in 1980 to change “is presenting an imminent and substantial endangerment to health or the environment” to “may present an imminent and substantial endangerment to health or the environment.”<sup>21</sup> That change was made to eliminate the need for certainty and lower the bar for EPA Action.<sup>22</sup> Similarly, section 7002 of RCRA also allows citizen suits when contamination “*may present* an imminent and substantial endangerment to health or the environment” and courts have also interpreted that language to be expansive and not require certainty.<sup>23</sup>

---

<sup>14</sup> See, e.g., Jennifer A. Faust, *PFAS on Atmospheric Particles: A Review*, ENV’T L SCI.: PROCESSES & IMPACTS (2022), <https://pubs.rsc.org/en/content/articlelanding/2022/em/d2em00002d/unauth>.

<sup>15</sup> See, e.g., Maya E. Morales-McDevitt, *The Air We Breathe: Neutral and Volatile PFAS in Indoor Air*, 10 ENV’T L SCI. & TECH. LETTERS 897 (2021), <https://pubs.acs.org/doi/10.1021/acs.estlett.1c00481>.

<sup>16</sup> See, e.g., Jason R. Masoner et al., *Landfill Leachate Contributes Per- and Polyfluoroalkyl Substances (PFAS) and Pharmaceuticals to Municipal Wastewater*, 6 ENV’T L SCI.: WATER & RESEARCH TECH. 1300 (2020), <https://pubs.rsc.org/en/content/articlelanding/2020/ew/d0ew00045k>. See also Env’t Prot. Agency, *Preliminary Effluent Guidelines Program Plan 15* (Sept. 2021) at 29, [https://www.epa.gov/system/files/documents/2021-09/ow-prelim-elg-plan-15\\_508.pdf](https://www.epa.gov/system/files/documents/2021-09/ow-prelim-elg-plan-15_508.pdf).

<sup>17</sup> Designation of Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonic (PFOS) as CERCLA Hazardous Substances, 87 Fed. Reg. 54415, 54421 (Sept. 06, 2022).

<sup>18</sup> H.R. Rep. No. 114-176, at 24 (2015), <https://www.congress.gov/114/crpt/hrpt176/CRPT-114hrpt176.pdf>.

<sup>19</sup> *Chemical Mfrs. Ass’n v. U.S. EPA*, 859 F.2d 977, 985 (D.C. Cir. 1988).

<sup>20</sup> 42 U.S.C. § 6973(a) (emphasis added).

<sup>21</sup> Compare S. 2150, 94th Cong. § 7003 (1976); 90 Stat. 2795, 2826 with 42 U.S.C. § 6973(a).

<sup>22</sup> See *Maines People’s Alliance & Nat. Res. Def. Council v. Mallinckrodt, Inc.*, 471 F.3d 277, 287 (1<sup>st</sup> Cir. 2006) (“Congress later loosened the standard for liability under section 7003”); see also *United States v. Price*, 688 F.2d 204, 213 (3d Cir. 1982) (interpreting “may” in section 7003 to be “expansive” and “confer overriding authority”).

<sup>23</sup> *Id.* at 288 (“To date, at least four of our sister circuits have construed that provision expansively...In taking this position all four courts have emphasized the preeminence of the word “may” in defining the degree of risk needed”).

But even if one were to require certainty of danger, PFOA and PFOS indisputably meet that standard. PFOA and PFOS are among the most studied chemicals in the world. A search on PubMed produces 3,910 results for PFOA and 4,206 results for PFOS.<sup>24</sup> The first manufacturers of PFOA and PFOS, 3M and DuPont, produced studies demonstrating serious toxicity concerns, including on their workers, dating back to the 1950s.<sup>25</sup> The C8 science panel epidemiological study in West Virginia had nearly 70,000 participants and found a probable link between PFOA and six diseases: high cholesterol, ulcerative colitis, thyroid disease, testicular cancer, kidney cancer and pregnancy-related hypertension.<sup>26</sup>

The preamble to the proposed rule includes a comprehensive science review of the myriad serious health harms associated with PFOA and PFOS.<sup>27</sup> The science review in the preamble to the rulemaking includes the EPA's recent update to the reference doses for PFOA and PFOS and incorporates feedback from the rigorous peer review of those values by the EPA Scientific Advisory Board.

Those reference values were used by the Office of Water in June to provide updated interim health advisories for PFOS and PFOA.<sup>28</sup> The advisories, using immune effect in children as the most sensitive health endpoint, calculated that levels not expected to be a health concern for PFOA and PFOS are shockingly low: .004 parts per trillion (4 parts per quadrillion) for PFOA and .02 ppt (20 ppq) for PFOS.<sup>29</sup>

The EPA's new interim health advisories demonstrate that PFOA and PFOS are toxic at lower levels than the vast majority of CERCLA hazardous substances, comparable to hazardous substances like ethylene dibromide, regulated at 50,000 ppt in drinking water,<sup>30</sup> and dioxin (2,3,7,8-TCDD), regulated at 30 ppt in drinking water.<sup>31</sup>

While some commenters may point to the recent World Health Organization analysis of PFOA and PFOS to cast doubt on the well-established science that PFOA and PFOS are toxic at low levels, that analysis was deeply flawed and unauthoritative. As the draft report acknowledges, it "is not intended as a comprehensive summary of the primary literature and not all studies are cited."<sup>32</sup> Moreover, the report excludes new studies showing PFOA and PFOS toxicity at low

---

<sup>24</sup> Search conducted on November 2, 2022.

<sup>25</sup> Jared Hayes, *For Decades, Polluters Knew PFAS Chemical Were Dangerous but Hid Risks from Public*, ENV'T'L WORKING GRP. (Aug. 29, 2019), <https://www.ewg.org/research/decades-polluters-knew-pfas-chemicals-were-dangerous-hid-risks-public>.

<sup>26</sup> C8 Science Panel, The Science Panel Website, <http://www.c8sciencepanel.org/> (last updated Jan. 22, 2020).

<sup>27</sup> Designation of Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonic (PFOS) as CERCLA Hazardous Substances, 87 Fed. Reg. 54415, 54424-26 (Sept. 06, 2022).

<sup>28</sup> Lifetime Drinking Water Health Advisories for Four Perfluoroalkyl Substances, 87 Fed. Reg. 36848 (June 21, 2022).

<sup>29</sup> *Id.*

<sup>30</sup> Env't'l Prot. Agency, National Primary Drinking Water Regulations, <https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations> (last updated January 26, 2022).

<sup>31</sup> *Id.*

<sup>32</sup> World Health Organization, PFOS and PFOA in Drinking Water: Background Document for Development of WHO Guidelines for Drinking-Water Quality, at 1 (Sept. 29, 2022), <https://cdn.who.int/media/docs/default->

levels, dismisses immune and cholesterol impacts, and applies discredited toxicokinetics data, among other flaws.<sup>33</sup> This report should have no bearing on the EPA's decision.

### **The EPA cannot consider cost when making a hazardous substance designation**

We agree with the EPA that the language in section 102(a) precludes EPA from considering costs when deciding whether to list PFOA and PFOS as hazardous substances. Cost is not listed as a permissible factor in section 102, nor is cost mentioned anywhere at all in section 102.

By its plain language, hazardous substance designation is a hazard determination, which does not naturally lend itself to considerations of cost. In toxicology, hazard identifies a potential source of danger or harm, and focuses on what kinds of harmful effects could occur under different exposure scenarios.<sup>34</sup> Hazard determinations do not address how to best mitigate harm, where cost considerations are more likely to come into play.

EPA's interpretation is also consistent with major caselaw. As the EPA points out in the preamble to the rule, in *Whitman v. American Trucking*, the Supreme Court found that setting air quality standards under the Clean Air Act precludes consideration of cost because cost has nothing to do with calculating an adequate margin of safety.<sup>35</sup>

We also agree with the EPA that CERCLA hazardous substance designation is distinct from the cost considerations required under the Supreme Court decision *Michigan v. EPA*. In that case, the state of Michigan challenged an EPA decision to require power plants to address mercury emissions under section 112(n)(1)(A) of the Clean Air Act. The Supreme Court found that "appropriate" in section 112(n)(1)(A) refers to all the relevant factors and "at least some attention to cost."<sup>36</sup> But in making that determination, the EPA relied in part on a Congressionally mandated study which required the agency to consider costs.<sup>37</sup> Only in that context, did the Court find that "appropriate and necessary" required the EPA to consider costs when deciding whether to regulate mercury emissions. By contrast, Congress has not required any the EPA to conduct any studies or other similar actions when making a hazardous substance designation. Congress has not included anything in the statutory requirements that would compel the EPA to consider costs.

*Michigan v. EPA* acknowledges that "where the Clean Air Act expressly directs EPA to regulate on the basis of a factor that on its face does not include costs, the Act normally should not be

---

[source/wash-documents/wash-chemicals/pfos-pfoa-gdwq-bd-working-draft-for-public-review-29.9.22.pdf?sfvrsn=eac28c23\\_3](https://www.epa.gov/washdocs/wash-chemicals/pfos-pfoa-gdwq-bd-working-draft-for-public-review-29.9.22.pdf?sfvrsn=eac28c23_3).

<sup>33</sup> See David Andrews, Olga Naidenko, & Alexis Temkin, *Flawed WHO Report on 'Forever Chemicals' Fails Human Health, EWG Scientists Find*, ENVT'L WORKING GROUP (Oct. 07, 2022), <https://www.ewg.org/news-insights/news/2022/10/flawed-who-report-forever-chemicals-fails-human-health-ewg-scientists>.

<sup>34</sup> See, e.g., Toxicology Education Foundation, *Hazard vs. Risk* (Apr. 02, 2020), <https://toxedfoundation.org/hazard-vs-risk/#:~:text=A%20hazard%20evaluation%20in%20toxicology,your%20liver%2C%20that's%20a%20hazard.>

<sup>35</sup> Designation of Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonic (PFOS) as CERCLA Hazardous Substances, 87 Fed. Reg. 54415, 54421-22 (Sept. 06, 2022) (citing *Whitman v. American Trucking*, 531 U.S. 457 (2001)).

<sup>36</sup> *Michigan v. EPA*, 576 U.S. 743, 752 (2015).

<sup>37</sup> *Id.* at 748.

read as implicitly allowing the Agency to consider cost anyway.”<sup>38</sup> CERCLA explicitly directs the EPA to regulate where a substance “may present a substantial danger to the public health and welfare or environment.” Whether something presents a substantial danger is a factor that on its face does not include costs.

Hazard determinations made under other environmental statutes also exclude cost considerations. For example, when assessing the safety of new chemicals and evaluating the risks of existing chemicals under the Toxic Substance Control Act, the EPA must determine whether the substance “may present an unreasonable risk, *without taking into consideration cost or other non-risk factors*.”<sup>39</sup> The EPA may only consider costs after it has decided to restrict use of the chemical and is weighing how to best manage risks.

Under the Safe Drinking Water Act, the EPA also does not consider cost when determining whether a substance should be regulated. Instead, the EPA considers (1) whether the contaminant may have an adverse impact on health; (2) if the contaminant is known to occur or there is a substantial likelihood that the contaminant will occur in public water systems with a frequency and at levels of public health concern; and (3) if the regulation of the contaminant presents a meaningful opportunity for health risk reduction for people served by the public water system.<sup>40</sup> Only later when the EPA issues enforceable drinking water regulations does the EPA consider non-risk factors like cost and feasibility.<sup>41</sup> Again, the regulatory determination is based purely on safety consideration whereas the subsequent regulatory actions may invoke costs.

Likewise, a hazardous substance determination under CERCLA is a threshold toxicity determination based purely on whether a substance “may present a substantial danger to the public health or welfare or the environment.” The EPA is required to consider costs at other points in the CERCLA process on a site-by-site basis, such as when developing a record of decision in a remedial action.<sup>42</sup>

### **CERCLA designation is urgently needed to give the EPA critical tools to advance cleanups**

Cleanup is urgently needed at hundreds, if not thousands, of communities across the country where individuals are exposed to unsafe levels of PFOA and PFOS. While the EPA has existing authority to address PFOA and PFOS as “pollutants or contaminants,” adding PFOA and PFOS to the list of hazardous substances will substantially expand that authority and reduce the EPA’s regulatory burden, allowing the EPA to initiate cleanups more quickly and accelerate existing cleanups.

First, by imposing reportable quantities, or RQs, for PFOA and PFOS the EPA will have immediate information about new releases and the opportunity to immediately investigate, and if needed take response actions to mitigate additional exposures. This information will also be shared with state or tribal and local emergency authorities, allowing this information to reach

---

<sup>38</sup> *Id.* at 755-56.

<sup>39</sup> *See, e.g.*, 15 U.S.C. § 2604(a)(3), 2604(b)(4)(A)(i), 2604(e)-(f); 15 U.S.C. § 2605(b)(1)(B), 2605(b)(4).

<sup>40</sup> 42 U.S.C. § 300g-1(b)(1)(A).

<sup>41</sup> 42 U.S.C. § 300g-1(b)(3)(C); 300g-1(b)(4)-(7).

<sup>42</sup> 42 U.S.C. § 9621.

communities more quickly. For federal facilities, a mandatory preliminary assessment is initiated whenever there is a release exceeding the RQ.<sup>43</sup>

Additionally, hazardous substance designation will enable the EPA to jumpstart cleanup at sites primarily contaminated with PFOA and PFOS. Under its current authority, the EPA must consider risks from hazardous substances, but not pollutants or contaminants, when calculating a hazard ranking score for potential listing on the National Priorities List, or NPL.<sup>44</sup> As such, the EPA is addressing PFOA and PFOS under its existing authority at NPL sites where PFOA and PFOS are co-located with other hazardous substances. After hazardous substance designation, the EPA will be able to assign a higher score to PFOA and PFOS sites, allowing those sites to be prioritized for remediated.

Hazardous substance designation will also allow the EPA to use monetary resources from the Superfund to quickly take removal actions or initiate remedial actions, especially when potentially responsible parties, or PRPs have not yet been identified. This is an especially powerful tool now that Congress has provided an estimated \$30 billion in new resources into the Superfund through the Infrastructure Investment and Jobs Act and Inflation Reduction Act.<sup>45</sup>

Where the EPA can identify polluters, hazardous substance designation will allow the agency to recover costs of cleanup. This means that polluters pay, not the taxpayer. This is an important accountability tool only available when addressing hazardous substances.<sup>46</sup> This infusion of resources will allow the CERCLA process to move more quickly at more sites and make more Superfund resources available for orphan sites.

Hazardous substance will also give the EPA powerful new enforcement tools. For instance, if a polluter refuses to cooperate in a cleanup, the EPA will have unilateral order authority to order a cleanup and impose daily fines.<sup>47</sup>

Hazardous substance designation will also provide clarity around the EPA's authority to act swiftly to address potential PFAS harms. To take response actions on pollutants or contaminants, the EPA must show that there is an "imminent and substantial danger to the public health or welfare."<sup>48</sup> No such showing is needed for hazardous substances. This lowers the burden for the EPA to act, allowing the agency to move more quickly. It also lowers litigation risk and delays because parties will not be able to challenge EPA actions based on whether the EPA has met its burden to show imminent and substantial danger.

The reporting requirements under section 120(h) will also hold the government accountable when transferring federal property. Section 120(h) of CERCLA requires the government to include in contracts transferring property notice about the type and quantity of hazardous substances as well as notice about when which storage, release, and disposal took place to the

---

<sup>43</sup> 42 U.S.C. § 9620(c)-(d).

<sup>44</sup> 42 U.S.C. § 9605(a)(8); 9605(c).

<sup>45</sup> *Democrats' IRA Reinstates Superfund Oil Taxes, Boosting PFAS Cleanups*, INSIDE EPA (Aug. 19, 2022), <https://insideepa.com/daily-news/democrats-ira-reinstates-superfund-s-oil-taxes-boosting-pfas-cleanups>.

<sup>46</sup> 42 U.S.C. § 9607(a).

<sup>47</sup> 42 U.S.C. § 9606.

<sup>48</sup> 42 U.S.C. § 9604.



extent such information is available. Deeds must include descriptions of any remedial actions taken and information about additional remedial actions that need to be taken. Deeds must also include assurances that restrictions will be in place to protect human health and the environment and that any necessary response actions will be taken.<sup>49</sup> These requirements will provide critical information about the presence and past use of PFOA and PFOS on federal property, ensure that new owners understand risks, ensure that remaining contamination is addressed, and protect communities living near the property. Having this information available at the time of transfer, along with assurances that response actions will be taken if needed, will also reduce the risk of protracted disputes over cleanup at these sites.

Finally, designating PFOA and PFOS as CERCLA hazardous substances would create new labeling requirements under the Hazardous Materials Transportation Act. PFOA and PFOS would have to be labeled when shipped, and packed in a way that will prevent releases.<sup>50</sup> Any shipments containing PFOA and PFOS must also be carefully tracked<sup>51</sup> and include emergency response information<sup>52</sup> and any incidents must be immediately reported.<sup>53</sup> The Department of Transportation would also be given enforcement powers allowing them to impose civil and criminal penalties for non-compliance.<sup>54</sup> While there is likely very little ongoing shipping of PFOA and PFOS, these new requirements will ensure that if shipping does happen, it happens safely and that any incidents are addressed immediately.

As the EPA argues, greater access to information and faster pace of cleanup would provide public health protection and reduce the cost of individual cleanups.<sup>55</sup> More importantly, faster cleanups will reduce exposures and mitigate health harms. Given the latest science showing that PFOA and PFOS are toxic at extremely low levels, these accelerated cleanups are urgently needed.

### **CERCLA designation will be minimally expensive**

We agree with the EPA that hazardous substance designation will create minimal direct costs. The preamble to the proposed rule identifies only three direct costs:

- 1) There is an RQ of one pound over 24 hours.
- 2) Section 120(h)—federal agencies must meet all property transfer requirements.
- 3) The Department of Transportation is required to list and regulate PFOA and PFOS as hazardous materials under the Hazardous Materials Transportation Act (CERCLA 306(a)).

Each of these new requirements will have few direct costs. First, because PFOA and PFOS have largely been phased out of active commerce, it is unlikely that there will be many releases over

---

<sup>49</sup> 42 U.S.C. §9620(h).

<sup>50</sup> 49 C.F.R. § 171.2; 49 C.F.R. § 173.

<sup>51</sup> 49 C.F.R. § 172.201-205.

<sup>52</sup> 49 C.F.R. § 172.600-606.

<sup>53</sup> 49 C.F.R. § 171.15-21.

<sup>54</sup> 49 C.F.R. § 107.329-339.

<sup>55</sup> Designation of Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonic (PFOS) as CERCLA Hazardous Substances, 87 Fed. Reg. 54415, 54418 (Sept. 06, 2022).

the RQ. In the rare instance of such a release, the administrative costs of filing a report are minimal. The EPA estimates an upper bound of costs of assuming 660 reports, which is equal to the number of reports the National Response Center received for ammonia releases exceeding its RQ in 2020, which was the most-reported hazardous substance for that year.<sup>56</sup> Unlike PFOA and PFOS, which have largely been phased out, ammonia is widely produced in the United States. An estimated 14 million metric tons of ammonia was produced in 2020.<sup>57</sup> It's extremely unlikely that PFOA and PFOS, produced on a significantly lower scale, will generate nearly as many reports. Given the low production volumes, actual costs are likely to be closer to the lower bound of the EPA's estimate.

The disclosure costs imposed by section 120(h) only apply to federal government, so this requirement will not create any new costs for industry. Furthermore, disclosure of the information on PFAS use and exposure will provide valuable information about risks upfront to potential buyers of government property, allowing them to proactively address any risks and save costs in the long run.

Listing and regulating PFOA and PFOS as hazardous materials under HMTA will also create few costs. As explained above, most of the HMTA requirements relate to labeling, packaging, and shipment tracking. These requirements serve an important public health benefit but will likely apply to a small number of shipments because PFOA and PFOS are rarely used. When PFOA or PFOS are shipped, it will be minimally burdensome for entities to simply label the shipments as hazardous and track those shipments, which they are likely already doing.

Hazardous substance designation will not create additional new ongoing regulatory compliance costs for industries using PFAS. CERCLA is a cleanup statute and does not regulate the manufacture or use of chemicals. While companies have raised concerns about indirect liability costs, mere designation does not impose any potential liability on current manufacturers and users of hazardous substances unless there has been a "release." A "release" is defined under CERCLA as "any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment."<sup>58</sup> Because PFOA and PFOS have largely been phased out of commerce in the U.S., very few entities are likely using PFOA and PFOS and would have to change their processes to avoid releases. To the extent any entities do take steps to avoid releases, those preventative measures may reduce future response costs.

As the EPA explains, "other than the reporting requirements in the statute, CERCLA is not a traditional regulatory statute that prospectively regulates behavior; rather it is remedial in nature, generally designed to address contamination on a site-specific basis."<sup>59</sup> Because cleanup is addressed on a site-by-site basis and cleanup costs are highly site specific, there will be no new

---

<sup>56</sup> Env't Prot. Agency, *Economic Assessment of the Potential Costs and Other Impacts of the Proposed Rulemaking to Designate Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonic Acid (PFOS) as Hazardous Substances* at 41 (Aug. 2022).

<sup>57</sup> Lucia Fernandez, *U.S. Ammonia Production 2014-2021*, STATISTA (March 30, 2022), <https://www.statista.com/statistics/982841/us-ammonia-production/>.

<sup>58</sup> 42 U.S.C. § 9601(22).

<sup>59</sup> Designation of Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonic (PFOS) as CERCLA Hazardous Substances, 87 Fed. Reg. 54415, 54420 (Sept. 06, 2022).

industry-wide costs resulting from the designation. While entities have discretion to take steps to prevent future releases of PFOA and PFOS to avoid future liability, CERCLA does not mandate any measures and those costs are also likely to vary widely depending on the use, volume, and handling of PFOA or PFOS at any given site, among other factors. Any response costs and liability concerns passed onto private parties will also be highly site specific. As such, it is impractical and unnecessary to quantitatively assess indirect costs.

In the 42 years since CERCLA was enacted, CERCLA hazardous substance designation has not resulted in significant new costs to users of hazardous substances in practice. Rarely have chemical users found hazardous substance designation to be cost prohibitive or found the specter of liability to be a deterrent from continuing to manufacture a hazardous substance. The CERCLA hazardous substances list contains many common, widely used chemicals. An analysis by the Environmental Working Group in 2019 found that at least 79 percent of the substances on the CERCLA hazardous substances list continue to be used in commerce.<sup>60</sup> Moreover, the analysis found that 44 percent of those substances are not only still produced, but produced in high volumes.<sup>61</sup> Sulfuric acid is included on the CERCLA hazardous substance list and is also the most-produced chemical in the world, with more than 70-80 billion pounds produced in 2015.<sup>62</sup> Even though it is listed as a CERCLA hazardous substance, sulfuric acid continues to be widely used in a variety of sectors and products, including fertilizer, petroleum products, detergents, dyes, drugs, explosives, and in metallurgical processes.<sup>63</sup> Benzene is also on the hazardous substances list and is one of the 20 most-produced chemicals in the U.S.,<sup>64</sup> with nearly 5 million metric tons produced in 2019.<sup>65</sup> An August 2007 ToxFact sheet on benzene by the Agency for Toxic Substances and Disease Registry, or ATSDR, found that it had been found at least 1,000 of the 1,684 sites on the NPL at the time.<sup>66</sup> Yet it continues to be commonly used to produce plastics, resins, nylon, synthetic fibers, and some types of lubricants, rubbers, dyes, detergents, drugs and pesticides.

Eight states have also started regulating PFOA and PFOS as hazardous substances under their state cleanup laws, which has not resulted in a significant amount of new liability or costs.

If users of PFAS chemicals are good stewards and take steps to limit or eliminate releases into the environment, there should be little concern about potential future liability stemming from hazardous substance designation.

### **Hazardous substance designation will provide critical public benefits and cost savings**

---

<sup>60</sup> Melanie Benesh and Jared Hayes, *For PFAS, Hazardous Substance Designation is Not a Ban*, ENV'TL WORKING GRP. (Oct. 15, 2019), <https://www.ewg.org/news-and-analysis/2019/10/pfas-hazardous-designation-not-ban>.

<sup>61</sup> *Id.*

<sup>62</sup> *Id.*

<sup>63</sup> Britannica, Sulfuric Acid, <https://www.britannica.com/science/sulfuric-acid> (last visited Nov. 07, 2022).

<sup>64</sup> Ctrs. For Disease Control, Emergency Preparedness and Response, Facts About Benzene, <https://emergency.cdc.gov/agent/benzene/basics/facts.asp> (last reviewed Apr. 04, 2018).

<sup>65</sup> Lucia Fernandez, *U.S. Benzene Production Volume 1990-2019*, STATISTA (June 14, 2022), <https://www.statista.com/statistics/974691/us-benzene-production-volume/>.

<sup>66</sup> Agency for Toxic Substances and Disease Registry, Benzene- ToxFAQs (2007), <https://www.atsdr.cdc.gov/toxfaqs/tfacts3.pdf>.

Hazardous substance designation will also create significant public health benefits and costs savings. Earlier this year, leading experts quantified the estimated disease burden and related economic costs due to legacy PFAS exposure at \$5.52 billion to \$62.6 billion in annual costs.<sup>67</sup> By remediating these legacy exposures, CERCLA cleanups can reduce this disease burden.

Imposing an RQ for PFOA and PFOS will alert the EPA immediately about new contamination, allowing the EPA to investigate and take response actions more quickly. EPCRA section 304 also requires owners or operators of facilities to immediately notify their State Emergency Response Commission (SERC) or Tribal Emergency Response Commission (TERC) and Local Emergency Planning Committee (LEPC) when there is a release of a CERCLA hazardous substance in an amount equal to or greater than the RQ for that substance within a 24-hour period. These requirements will allow impacted communities to respond swiftly to mitigate exposure. The sooner contamination is addressed, the less likely it is to spread, and the fewer people will be harmed.

Hazardous substance designation will also accelerate the cleanup process at existing sites, allow the EPA to designate new sites more quickly, and let the EPA use resources to take both short-term removal actions and quickly initiate longer-term remedial actions. Early detection, access to new resources, and stronger enforcement tools will allow sites to be remediated more quickly, reducing overall costs of cleanup.

More importantly, these actions will reduce exposures to PFOA and PFOS. Reducing exposure will also reduce PFOA and PFOS in blood levels, decreasing health risks. Levels of PFOA and PFOS in blood have dropped dramatically because of the EPA agreement with manufacturers to phase out the use of PFOA and PFOS by 2015. According to analysis of the National Health and Nutrition Examination Survey, which has measured PFAS in blood in the U.S. population since 1999, from 1999-2000 to 2017-2018 levels of PFOA in blood have declined more than 70 percent and levels of PFOS in blood have declined more than 85 percent.<sup>68</sup> Using CERCLA and other tools to reduce exposures to legacy PFOA and PFOS in the environment will cause blood levels to continue declining, further mitigating health risks.

### **The EPA does not have authority to grant exemptions**

We agree with the EPA that it lacks authority to grant exemptions from the hazardous substance designation.

CERCLA does provide some exemptions from the definition of what it considers a release. Section 101(22) defines “release” as “any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment.” The definition specifically excludes exposures that take place solely within the

---

<sup>67</sup> Vladislav Obsekov, Linda G. Kahn, & Leonardo Trasande, *Leveraging Systematic Reviews to Explore Disease Burden and Costs of Per- and Polyfluoroalkyl Substance Exposures in the United States*, J. OF EXPOSURE AND HEALTH (2022), <https://link.springer.com/article/10.1007/s12403-022-00496-y>.

<sup>68</sup> Agency for Toxic Substances and Disease Registry, PFAS in the U.S. Population, <https://www.atsdr.cdc.gov/pfas/health-effects/us-population.html> (last reviewed Nov. 01, 2022).

workplace, exhaust pipe emissions from motor vehicles, releases of nuclear materials regulated under the Atomic Energy Act of 1954, and the normal application of fertilizers.<sup>69</sup>

Congress also exempted some entities from the definition of “owner and operator” including certain innocent landowners and bona fide purchasers; government when property is acquired through seizure or otherwise in connection with enforcement activity or through bankruptcy, tax delinquency, or abandonment; and certain Alaska native villages; and some lenders.<sup>70</sup> CERCLA amendments have also exempted generators of municipal solid waste and recyclers/service station dealers.<sup>71</sup>

Because Congress clearly delineated a set of exemptions, it is unlikely that Congress intended to provide the EPA with additional discretion to exempt additional industries. Courts have found that in the absence of delegation language, CERCLA does not grant the EPA authority to exempt entities from CERCLA’s reporting requirements, aside from those expressly identified in the statute.<sup>72</sup>

### **The EPA has multiple tools available to ensure that polluters are held accountable, not innocent parties**

EPA’s approach to CERCLA liability has evolved over the statute’s 40-year history, and there are many tools – including liability limits, affirmative defenses, and enforcement discretion – designed to distribute liability more equitably. In practice, the major contributors to PFAS pollution will pay the lion’s share for cleanups.

EPA has significant enforcement discretion. The EPA can use this discretion to determine which PRPs to include in cleanups and cost recovery actions. The EPA can also develop and distribute policy documents and guidance to articulate how it plans to use its discretion and provide predictability to potentially affected parties.

The EPA can also use settlements to equitably distribute liability. Under Section 122(g) of CERCLA, the EPA can, and often does, quickly make “de minimis” settlements with parties that contributed only a small amount to the pollution.<sup>73</sup> The EPA has the discretion to make “ability to pay” settlements<sup>74</sup> and regularly assesses how much a party can pay when assessing liability and imposing penalties.<sup>75</sup> A settlement with the EPA creates a contribution shield protecting that party from additional CERCLA liability and removing them from the case. Other PRPs at that site are then barred from seeking financial contribution from those parties that have already

---

<sup>69</sup> 42 U.S.C. § 9601(22).

<sup>70</sup> 42 U.S.C. § 9601(20).

<sup>71</sup> 42 U.S.C. §§ 9607(p); 9614(c); 9627.

<sup>72</sup> See *Waterkeeper Alliance v. EPA*, 853 F.3d 527, 534-35 (D.C. Cir. 2017)

<sup>73</sup> 42 U.S.C. § 9622(g).

<sup>74</sup> Memorandum from Barry Breen, Director Office of Site Remediation, Env’t Prot. Agency, Re: General Policy on Superfund Ability to Pay Determinations (Sept. 30, 1997), <https://www.epa.gov/enforcement/guidance-superfund-ability-pay-determinations>.

<sup>75</sup> Memorandum from Susan Shinkman, Director, Office of Civil Enforcement, Env’t Prot. Agency, Re: Guidance on Evaluating a Violator’s Ability to Pay a Civil Penalty in an Administrative Enforcement Action (June 29, 2015), <https://www.epa.gov/sites/default/files/2015-06/documents/atp-penalty-evaluate-2015.pdf>.

settled with the EPA. The EPA also has discretion to allow delayed payments, payment schedules, and in-kind contributions from municipal parties in settlement agreements.

CERCLA has liability limits for certain parties, like innocent landowners, contiguous property owners, and bona fide prospective purchasers.<sup>76</sup> These provisions are designed to protect parties who unknowingly purchased contaminated property, are victims of contamination from a neighboring property, or who plan to purchase a contaminated property and commit to allowing any ongoing removal or remedial actions.

CERCLA also includes provisions specifically directed at limiting municipal liability. Municipalities are not liable for costs or damages in response to costs related to emergencies created by the release of hazardous substances,<sup>77</sup> and EPA can reimburse municipalities for temporary emergency measures.<sup>78</sup> Municipalities and other government entities like utilities can also be exempted from liability if they are conducting a cleanup in compliance with a state cleanup program.<sup>79</sup>

PRPs can also protect themselves by taking proactive cleanup actions. Listing on the CERCLA NPL is considered the option of last resort at most contaminated sites. Cleanup is often conducted instead through state programs, which can be quicker, more efficient, and less costly. In some cases, these cleanup programs are voluntary but subject to state oversight. Cleanups satisfactorily conducted under one of these state response programs are subject to an “enforcement bar” under CERCLA, meaning that EPA will not take any Superfund actions against parties involved in the cleanup.<sup>80</sup>

Finally, the EPA can help publicly owned treatment works and other dischargers limit liability by developing water quality criteria and effluent limitation guidelines and incorporating discharge limits for PFOA and PFOS into National Pollutant Discharge Elimination System, or NPDES, permits. Section 107(j) of CERCLA limits liability from “federally permitted releases,” including releases subject to NPDES permits.<sup>81</sup> Establishing these effluent and pretreatment requirements would also reduce the amount of PFAS going to utilities, reducing their treatment burden. The EPA should work quickly to develop these limits and provide guidance to permit writers, as promised in the National PFAS Strategic Roadmap.

### **The EPA should lower the reportable quantity**

The rule proposes a RQ of one pound over 24 hours for both PFOA and PFOS. This is the default RQ under section 102(b) of CERCLA “unless or until superseded by regulations establishing a reportable quantity under subsection (a).”<sup>82</sup> The EPA has clear authority to supersede the default RQ through a section 102(a) rulemaking.

---

<sup>76</sup> Env't'l Prot. Agency, Superfund Landowner Liability Protections, <https://www.epa.gov/enforcement/landowner-liability-protections> (last updated Dec. 16, 2021).

<sup>77</sup> 42 U.S.C. § 9607(d)(2).

<sup>78</sup> 42 U.S.C. § 9623.

<sup>79</sup> 42 U.S.C. § 9628(b).

<sup>80</sup> *Id.*

<sup>81</sup> 42 U.S.C. § 9607(j).

<sup>82</sup> 42 U.S.C. § 9602(b).

The EPA’s most recent interim health advisory levels for PFOA and PFOS demonstrate that PFOA and PFOS are toxic at much lower levels than most CERCLA hazardous substances. Because PFOA and PFOS present health harms at such low levels, releases of PFOA and PFOS substantially lower than one pound over 24 hours could pose serious risks.

One pound of PFOA or PFOS has the potential to contaminate staggering amounts of water. By our calculations, one pound of PFOA or PFOS at a concentration of 70 ppt—EPA’s previous lifetime health advisory—could contaminate more than 1.7 billion gallons of water.

Refence concentration	Parts per trillion	pounds in a gallon	Gallons of water with 1 pound	billion
<b>EPA 2016 LHA (PFOA)</b>	<b>70</b>	5.84E-10	1,711,513,135	<b>1.712</b>
<b>EPA 2016 LHA (PFOS)</b>	<b>70</b>	5.84E-10	1,711,513,135	<b>1.712</b>

Using the updated interim health advisories for PFOA and PFOS that the EPA released in June, one pound of PFOA at a concentration of 0.004 ppt could contaminate more than 29.9 gallons of water and one pound of PFOS at a concentration of 0.02 ppt could contaminate more than 5.99 trillion gallons of water.

Refence concentration	Parts per trillion	pounds in a gallon	Gallon of water with 1 pound	trillion
<b>EPA updated provisional LHA PFOA</b>	<b>0.004</b>	3.34E-14	29,951,479,859,201	<b>29.951</b>
<b>EPA updated provisional LHA PFOS</b>	<b>0.02</b>	1.67E-13	5,990,295,971,840	<b>5.990</b>

These calculations are consistent with findings by the Michigan Waste and Recycling Association. MWRA, in collaboration with the Michigan Department of Environment, Great Lakes, and Energy, conducted a statewide analysis of PFOA and PFOS in landfill leachate and POTW influent. Michigan found that the 35 landfills included in the study contributed one million gallons of leachate to POTW influent, containing only 0.01 lbs/day of PFOA and 0.003 lbs/day of PFOS. MWRA also found that 34 POTWs with influent data received approximately 1.4 billion gallons of influent daily, which only amounted to approximately 0.09 lbs/day of PFOA and 0.15 lbs/day of PFOS.<sup>83</sup> These measurements are all well below the one pound RQ.

These calculations, and Michigan’s experience, show that releases exceeding the RQ have the potential to contaminate trillions of gallons of water at unsafe levels.

For smaller quantities of water to exceed the RQ, concentrations of PFOA and PFOS would have to be extremely high. For example, a million gallons of effluent would have to contain nearly 120,000 ppt of PFOA or PFOS to exceed the one pound RQ.

<sup>83</sup> Michigan Waste & Recycling Association, Statewide Study on Landfill Leachate PFOA and PFOS Impact on Water Resource Recovery Facility Influent, Technical Report (March 01, 2019), <https://www.bridgemi.com/sites/default/files/mwra-technical-report.pdf>.

Effluent volume in gallons	Gallons	Concentration ratio (ie 1 = all PFOS or PFOS)	Concentration in ppt for 1 pound
10	ten	0.01212586701	12,125,867,008
100	hundred	0.001199496262	1,199,496,262
1,000	thousand	0.0001198202746	119,820,275
10,000	ten thousand	0.00001198073548	11,980,735
100,000	one hundred thousand	0.00000119806063	1,198,061
1,000,000	million	0.0000001198059338	119,806
10,000,000	ten million	0.00000001198059209	11,981
100,000,000	hundred million	0.000000001198059196	1,198
1,000,000,000	billion	0.0000000001198059195	120

Engineering firm CDM Smith also provided similar calculations in a recent client alert. They found “For most facilities that process drinking water and wastewater [the RQ] may not be an issue. Plans with flows in the 10-100 MGD range, for example, could discharge between 1,200 and 12,000 ng/l [ppt] of PFOA/PFOS and still be under the RQ.”<sup>84</sup>

Without lowering the RQ, releases of astronomical amounts of PFOA and PFOS in water could go unreported, making it difficult for federal, state, and local officials to adequately respond and contain the spread of PFOA and PFOS and minimize exposures.

### **The EPA should update the regional screening levels to reflect the latest science**

The preamble to the proposed rule<sup>85</sup> also references regional screening levels, removal management levels, and preliminary remediation goals. Those suggested levels are:

Tapwater regional screening levels:

- If both PFOAS/PFOS found = PFOS 6 ppt
- Only PFOS = 60 ppt
- Only PFOA = 40 ppt

Tapwater removal management levels:

- PFOS = 4 ppt

Preliminary remediation goal (PRG):

- PFOA and PFOS = 70 ppt where no state or tribal maximum contaminant level or other applicable relevant and appropriate requirements are available or sufficiently protective

<sup>84</sup> Tamzen Wood MacBeth, *5 Major Takeaways From PFOA/PFOS Propose CERCLA Designation*, CDM Smith (2022), <https://www.cdmsmith.com/en/Client-Solutions/Insights/PFAS-CERCLA>.

<sup>85</sup> Designation of Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonic (PFOS) as CERCLA Hazardous Substances, 87 Fed. Reg. 54415, 54430 (Sept. 06, 2022).



These screening levels have significant consequences for cleanup. The EPA uses regional screening levels to determine whether to continue investigating a contaminated site or to identify options for cleanup. The EPA uses removal management levels, in part, to decide whether to conduct a removal action at a site. Preliminary remediation goals represent early cleanup targets. The current RSLs, RMLs, and PRGs are outdated and do not reflect the latest science. Unduly high thresholds risk mean that some contaminated sites may be overlooked or ignored, even when community exposure is occurring at unsafe levels.

According to the preamble to the proposed rule, the EPA's next scheduled update to the RSL and RML tables will be in November 2022.<sup>86</sup> The EPA should update the RSLs, RMLs, and the PRG to align more closely with the toxicity findings in the new interim lifetime health advisories for PFOA and PFOS.

### **The EPA should designate additional PFAS as CERCLA hazardous substances**

The EPA should issue an advanced notice of proposed rulemaking on designating additional PFAS for hazardous substance designation, as EPA pledged to do in its October 2021 PFAS Strategic Roadmap. When seeking comments on designating additional PFAS as hazardous substances, we urge the EPA to consider the well-established science calling for the entire class of PFAS to be addressed together, especially since many communities are likely exposed to mixtures of multiple PFAS chemicals.

For PFAS for which there is an authoritative assessment such as an EPA health advisory level, ATSDR toxicity assessment, or IRIS assessment showing “a substantial danger to the public health or welfare or the environment,” an ANPRM is unnecessary. Instead, the EPA should issue a proposed rulemaking designating those PFAS as hazardous substances.

Furthermore, the EPA does not need to complete additional section 102(a) designations before taking response actions addressing other PFAS chemicals. Until these substances are designated as hazardous, the EPA should conduct removals and carry out remediation using CERCLA authority for addressing “pollutants or contaminants.” This would allow the EPA to take response actions addressing other PFAS at contaminated sites under its existing authority. For example, the EPA should include other PFAS in site investigations, and when developing records of decision at sites addressing PFOA and PFOS, the EPA should also consider whether selected cleanup remedies will also address other PFAS at the site.

### **The EPA should act quickly to address PFAS under RCRA and other cleanup programs**

We strongly support the EPA's plan to initiate a rulemaking regarding its authority to require investigation and cleanup for wastes that meet the statutory definition of hazardous waste, as defined in RCA section 1004(5).<sup>87</sup> This rulemaking would clarify that emerging contaminants like PFOA, PFOS, and other PFAS can be addressed through RCRA corrective action.

---

<sup>86</sup> *Id.* at 54431.

<sup>87</sup> *Id.*

RCRA corrective action and other cleanup programs like state programs and the Superfund Alternative Approach provide a critical supplement to cleanups under CERCLA, allowing the EPA to better prioritize limited CERCLA resources. Listing a site on the NPL takes time and is generally considered to be the remedy of last resort. After a site is listed, the CERCLA process of investigating, developing a record of decision, and implementing a cleanup plan can also take decades. Often alternatives like RCRA corrective action can more quickly and effectively address contamination and bring relief to nearby communities.

States and tribes also have their own Superfund laws. Alaska,<sup>88</sup> Colorado,<sup>89</sup> Delaware,<sup>90</sup> Massachusetts,<sup>91</sup> New Jersey,<sup>92</sup> New York,<sup>93</sup> Vermont,<sup>94</sup> and Washington<sup>95</sup> already treat PFOA and PFOS as hazardous substances under their state cleanup laws. Twenty-nine states have developed or are developing recommended soil or groundwater cleanup levels for PFOA, PFOS, and other PFAS.<sup>96</sup> Cleanups under these state programs can also be more flexible than the NPL process and should be utilized wherever possible.

### **Hazardous substance designation is needed to ensure that military installations and defense communities are cleaned up**

The Department of Defense is the lead agency on CERCLA cleanups of contaminated bases. Because the military has required the use of aqueous film-forming foam, or AFFF, with PFAS for the last 50 years,<sup>97</sup> military installations are among the most contaminated PFAS sites in the

---

<sup>88</sup> State of Alaska, Division of Spill Prevention and Response, Aqueous Film Forming Foam (AFFF), <https://dec.alaska.gov/spar/csp/pfas/firefighting-foam/> (last visited Nov. 06, 2022).

<sup>89</sup> 6 Colo. Code Regs. § 1007-3-8.90, <https://casetext.com/regulation/colorado-administrative-code/departments-1000-department-of-public-health-and-environment/division-1007-hazardous-materials-and-waste-management-division/rule-6-ccr-1007-3-hazardous-waste/part-6-ccr-1007-3-8-solid-and-hazardous-waste-commission-fees/section-6-ccr-1007-3-890-basis-and-purpose>.

<sup>90</sup> Todd Keyser, *PFAS- Fighting Forever Chemicals in Delaware*, DELAWARE.GOV, <https://dnrec.alpha.delaware.gov/outdoor-delaware/pfas-fighting-forever-chemicals-in-delaware/>.

<sup>91</sup> Commonwealth of Massachusetts, Dep't of Env't Prot., Fact Sheet: Interim Guidance on Sampling and Analysis for PFAS at Disposal Sites Regulated under the Massachusetts Contingency Plan (June 16, 2022), <https://www.mass.gov/doc/interim-guidance-on-sampling-and-analysis-for-pfas-at-disposal-sites-regulated-under-the-massachusetts-contingency-plan-june-2022/download>.

<sup>92</sup> New Jersey, Q&A on PFOA and PFOS (June 17, 2020), <https://www.nj.gov/dep/watersupply/pdf/pfoa-pfos-faq.pdf>.

<sup>93</sup> New York, Dep't of Env't Conservation, Per- and Polyfluoroalkyl Substances, <https://www.dec.ny.gov/chemical/108831.html#:~:text=In%20January%202016%2C%20New%20York,of%20PFO%20in%20April%202016> (last visited Nov. 06, 2022).

<sup>94</sup> State of Vermont Agency of Natural Resources Dep't of Env't Conservation Waste Management and Prevention Division, Investigation and Remediation of Contaminated Properties Rule (July 11, 2018), [https://dec.vermont.gov/sites/dec/files/wmp/Sites/2018\\_07\\_11%20Investigation%20and%20Remediation%20of%20Contaminated%20Properties\\_PFAS%20Emergency%20Rule\\_clean.pdf](https://dec.vermont.gov/sites/dec/files/wmp/Sites/2018_07_11%20Investigation%20and%20Remediation%20of%20Contaminated%20Properties_PFAS%20Emergency%20Rule_clean.pdf).

<sup>95</sup> Washington Dep't of Ecology, PFAS at Cleanup Sites, <https://ecology.wa.gov/Waste-Toxics/Reducing-toxic-chemicals/Addressing-priority-toxic-chemicals/PFAS/Cleanup-sites> (last visited Nov. 06, 2022).

<sup>96</sup> Env't Prot. Agency, Economic Assessment of the Potential Costs and Other Impacts of the Proposed Rulemaking to Designate Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonic Acid (PFOS) as Hazardous Substances (Aug. 2022) at 34-38.

<sup>97</sup> Jared Hayes & Scott Faber, *For Decades, The Department of Defense Knew Firefighting Foams With 'Forever Chemicals' Were Dangerous but Continued Their Use*, ENVT'L WORKING GRP. (March 06, 2022),

United States. EWG has identified 708 military sites with known or suspected PFAS contamination.<sup>98</sup> Some of the most contaminated known sites are military installations like the former Wurtsmith Air Force Base in Oscoda, Michigan,<sup>99</sup> Pease Air Force Base in Portsmouth, New Hampshire,<sup>100</sup> and Willow Grove Naval Air and Air Reserve Station, in Horsham, Pennsylvania.<sup>101</sup> PFAS contamination at Cannon Air Force Base was responsible for subsequent contamination of cattle and closure of Highland Dairy in Clovis, New Mexico.<sup>102</sup>

The Department of Defense has used to the absence of a “hazardous substance” designation under CERCLA to justify slow walking clean up at some of these sites. For example, the Michigan Department of Natural Resources sent the Air Force a violation notice for failure to meet state cleanup standards for PFAS at the former Wurtsmith Air Force Base in 2018. In response, the Air Force claimed that:

PFOS and PFOA do not qualify as CERCLA hazardous substances; they are CERCLA pollutants or contaminants under 42 U.S.C. § 9601(33). PFOS and PFOA are also not hazardous wastes, and they obviously are not petroleum . . . [T]he federal government is immune under 42 U.S.C. § 9620(a)(4) from a state enforcing its laws for the release of anything other than CERCLA hazardous substances.<sup>103</sup>

*Inside EPA* reported in March 2019 that “in Georgia, the Air Force has also declined to address off-site contamination from three bases in part because neither EPA nor the state regulates the substances.”<sup>104</sup>

While the DOD has taken some steps since then to address PFOA and PFOS at DOD facilities, the pace of cleanup at contaminated DOD sites remains slow. The DOD has yet to develop a

---

<https://www.ewg.org/research/decades-department-defense-knew-firefighting-foams-forever-chemicals-were-dangerous>.

<sup>98</sup> Env'tl Working Grp., 708 Military Sites with Known or Suspected Discharges of PFAS, <https://www.ewg.org/interactive-maps/2020-military-pfas-sites/map/> (last visited Nov. 06, 2022).

<sup>99</sup> Michigan PFAS Action Response Team, Former Wurtsmith Air Force Base [https://www.michigan.gov/pfasresponse/0,9038,7-365-86511\\_82704\\_83952---,00.html](https://www.michigan.gov/pfasresponse/0,9038,7-365-86511_82704_83952---,00.html) (last updated March 25, 2022).

<sup>100</sup> Env'tl Prot. Agency, Superfund Site: Pease Air Force Base <https://cumulis.epa.gov/supercpad/cursites/csinfo.cfm?id=0101213> (last visited Nov. 07, 2022).

<sup>101</sup> Env'tl Prot. Agency, Superfund Site: Willow Grove Naval Air and Air Reserve Station <https://cumulis.epa.gov/supercpad/cursites/csinfo.cfm?id=0303820> (last visited Nov. 07, 2022).

<sup>102</sup> Theresa Davis, *Cannon PFAS Destroyed Longtime Clovis Farmer's Dairy*, ALBUQUERQUE JOURNAL (May 28, 2022), <https://www.abqjournal.com/2503560/cannon-pfas-destroyed-longtime-clovis-farmers-dairy.html>.

<sup>103</sup> Letter from Stephen G. Termaath, Chief, BRAC Program Management Division Installations Directorate, to Teresa Seidel, Director Water Resources Division, Michigan Dep't of Env'tl Quality, Re: Violation Notice No. VN 008900, Substantive Requirements Document (SRD) No. MIU990034 (Dec. 07, 2018), [https://www.michigan.gov/documents/pfasresponse/Letter\\_from\\_USAF\\_Termaath\\_to\\_DEQ\\_Seidel\\_dated\\_120718\\_648045\\_7.pdf](https://www.michigan.gov/documents/pfasresponse/Letter_from_USAF_Termaath_to_DEQ_Seidel_dated_120718_648045_7.pdf)

<sup>104</sup> Suzanne Yohannan, *Air Force Seeks to Preserve Federal Test Case on State's PFAS Enforcement*, INSIDE EPA (March 22, 2019), <https://insideepa.com/daily-news/air-force-seeks-preserve-federal-test-case-states-pfas-enforcement>

record of decision to address PFOA and PFOS at any DOD site<sup>105</sup> nor has the DOD provided a cleanup schedule to Congress, as required by the National Defense Authorization Act for Fiscal Year 2022.<sup>106</sup>

Designating PFAS as a hazardous substance under CERCLA will help hold the Department of Defense accountable at contaminated sites, accelerate the cleanup process, help add DOD sites to the NPL as needed, and help ensure that DOD respects state and federal cleanup standards.

### **The EPA must also prioritize source reduction to prevent future contamination**

Hazardous substance designation under CERCLA is urgently needed to bring relief to the thousands of already-contaminated communities across the United States. But we cannot rely on cleanup alone to address the PFAS crisis. In addition to cleaning up existing pollution, the EPA must prioritize preventing future contamination. Prevention will limit the number of new future sites, reopening of old sites, and minimize new exposures.

To address PFAS at the source, the EPA should quickly develop water quality criteria and effluent limitation guidelines under the Clean Water Act, as promised in the PFAS Roadmap. The EPA should also quickly finalize its guidance to permit writers and urge states to address PFAS in NPDES permits while the EPA is developing ELGs. The EPA should immediately start including PFAS in EPA-issued NPDES permits and impose pretreatment requirements in states where EPA administers the national pretreatment program. The EPA should also list PFOA and PFOS and consider listing other PFAS as hazardous air pollutants under the Clean Air Act. The EPA should work with the White House to develop strong implementing guidance for Executive Order 14057 to limit government procurement of non-essential uses of PFAS.

### **Conclusion**

We appreciate the opportunity to provide these comments and look forward to working with the EPA to address risks from PFOA, PFOS, and other PFAS. If you have any questions about these comments or other PFAS-related matters, please feel free to contact Melanie Benesh [mbenesh@ewg.org](mailto:mbenesh@ewg.org) or John Reeder [john.reeder@ewg.org](mailto:john.reeder@ewg.org).

---

<sup>105</sup> Jared Hayes, *Military's Filthy 50 Sites Contaminated With 'Forever Chemicals' Haven't Started Cleanup*, ENVT'L WORKING GRP. (June 14, 2022), <https://www.ewg.org/news-insights/news/2022/06/militarys-filthy-50-sites-contaminated-forever-chemicals-havent-started>.

<sup>106</sup> National Defense Authorization Act for Fiscal Year 2022, S. 1605, 117th Cong. § 348 (1st Sess. 2021).