



Know your environment.
Protect your health.

January 07, 2019

Designation of PFAS as hazardous substances under CERCLA

H.R. 535, the PFAS Action Act, as amended, would require EPA to designate perfluorooctanoic acid (PFOA) and its salts and perfluorooctanesulfonic acid (PFOS) and its salts as hazardous substances under section 102(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 within one year. Within 5 years, EPA must determine whether to designate other per- and polyfluoroalkyl substances under section 102(a), either individually or in groups.

Superfund designation is urgently needed to jump start the cleanup process in contaminated communities across the U.S. and ensure that polluters are held accountable.

We understand trade associations and groups have expressed concerns about the potential liability that may be faced by public drinking and wastewater utilities, farmers, and some users of PFAS. These concerns are overstated and rooted in a misunderstanding of how CERCLA works.

CERCLA designation is not a de facto ban

Superfund designation would not create a de facto ban and would not prevent the use of PFAS in commerce for things like medical devices or fighter jets.

CERCLA is a cleanup statute and does not regulate the use or manufacture of toxic substances. CERCLA only regulates releases of toxic substances that threaten human health or the environment.

The full list of CERCLA hazardous substances, which includes roughly 800 substances, can be found at 40 C.F.R. § 302.40. The hazardous substances list contains many common, widely used chemicals. An analysis by the Environmental Working Group found that at least 79 percent of the substances on the CERCLA hazardous substances list continue to be used in commerce.¹ Moreover, the analysis found that not 44 percent of those substances are not only still produced but produced in high volumes.² 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 2015.³ 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

¹ <https://www.ewg.org/news-and-analysis/2019/10/pfas-hazardous-designation-not-ban>

² *Id.*

³ *Id.*

products, detergents, dyes, insecticides, drugs, plastics, steel and batteries.⁴ Benzene is also on the hazardous substances list and is one of the 20 most-produced chemicals in the U.S.,⁵ with more than 5 million metric tons produced in 2017.⁶ 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 National Priorities List at the time.⁷ 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.

Trichloroethylene, or TCE, is another substance on the CERCLA hazardous substance list, and many Superfund sites are contaminated with it. ATSDR reported in June 2019 that TCE has been found at more than 1,000 sites on the NPL.⁸ Nonetheless, TCE continues to be broadly used. In 2015, approximately 172 million pounds of TCE were manufactured in or imported into the U.S.⁹ Unlike the vast majority of substances on the hazardous substances list, EPA has determined that TCE is unsafe for some uses, including dry cleaning, aerosol degreasing, and vapor degreasing.¹⁰ This determination came decades after placement on the hazardous substance list and was limited to only three uses. EPA proposed two rules under the Toxic Substances Control Act, or TSCA, to ban those uses in December 2016 and January 2017.¹¹ Those proposed rules have not been finalized and are unlikely to be finalized anytime soon, if ever, if judging from recent actions by the EPA. As such, even those uses of TCE remain legal.

Other common and familiar substances on the CERCLA hazardous substances list include chlorine, nicotine, lead, mercury, and arsenic.

Nearly all chemicals on the CERCLA hazardous substances list have not been banned, and most continue to be used widely commercially and industrially. In fact, many, if not most, interest groups concerned about potential liability from PFAS designation as hazardous substances likely already work with one or more of the other CERCLA hazardous substances. Banning the use of a substance in commerce requires a lengthy rulemaking process under other statutes and is completely separate from the CERCLA process.

Manufacture and use of CERCLA hazardous substances do not trigger liability

CERCLA is a cleanup statute and does not regulate the manufacture or use of chemicals. 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,

4

https://www.cengage.com/chemistry/book_content/0547125321_zumdahl/chemical_connections/Zumdahl.8e.Ch20.CI15.pdf

⁵ <https://emergency.cdc.gov/agent/benzene/basics/facts.asp>

⁶ <https://www.statista.com/statistics/974691/us-benzene-production-volume/>

⁷ <https://www.atsdr.cdc.gov/toxfaqs/tfacts3.pdf>

⁸ <https://www.atsdr.cdc.gov/toxfaqs/tfacts19.pdf>

⁹ https://www.epa.gov/sites/production/files/2018-06/documents/tce_problem_formulation_05-31-31.pdf

¹⁰ <https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/risk-management-trichloroethylene-tce>

¹¹ <https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/risk-management-trichloroethylene-tce>

leaching, dumping or disposing into the environment.”¹² The definition specifically excludes exposures that take place solely within the workplace, exhaust pipe emissions from motor vehicles, releases of nuclear materials regulated under the Atomic Energy Act of 1954, and fertilizers.

In practice, EPA usually determines there is a release when the chemicals are released above the “reporting quantities” it has set or when a report is made to the National Response Center. The reporting quantities are also included in the hazardous substance designation list at 40 C.F.R. § 302.4.

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 a CERCLA hazardous substance designation.

A release of a CERCLA hazardous substance does not trigger automatic liability

Even the release of a hazardous substance does not trigger immediate liability. The Superfund process is lengthy and involves a preliminary assessment, site investigation, and hazard ranking score before a site can be placed on the National Priority List, or NPL, EPA’s list of priority sites for cleanup most commonly associated with Superfund. During that process it may be determined that no further Superfund assessment is needed, or the site may be referred to another cleanup program. There are multiple opportunities throughout the process for potentially liable parties to provide input and coordinate with EPA if a site is considered for listing on the NPL.

That said, the vast majority of contaminated sites never make it onto the NPL, and the same is likely to hold true for sites contaminated with PFAS. Today, NPL listing is considered the “option of last resort”¹³ for EPA and is often reserved for highly contaminated sites or so-called orphan sites where potentially responsible parties cannot be found.

A number of Superfund alternatives have evolved over the 40 years that CERCLA has been in place. Most cleanups happen under these programs, rather than through the formal NPL process.¹⁴

One program is the Superfund Alternative Approach. This program allows potentially responsible parties to enter into consent agreements with the EPA to ensure the cleanup is completed but without the formal NPL process. These programs are also sometimes referred to as “NPL equivalent” cleanups and tend to be quicker and more cost-effective than the NPL process. NPL-equivalent cleanups also do not carry the stigma of an NPL listing.

States and tribes also have their own Superfund laws. Some state Superfund programs, like New York’s,¹⁵ already include some PFAS chemicals on their state hazardous substances lists, and

¹² 42 U.S.C. § 9601(22).

¹³ <https://www.epa.gov/sites/production/files/documents/saa-baseline-rpt.pdf>

¹⁴ <https://www.epa.gov/superfund/superfund-site-assessment-process>

¹⁵ <https://www.dec.ny.gov/regulations/104968.html>

others like Pennsylvania¹⁶ and Wisconsin¹⁷ are considering adding them. Cleanups under these state programs can also be more flexible and efficient than the NPL process. If contamination is being effectively cleaned up under a state program, EPA will not pursue Superfund liability.

Many contaminated sites are also already subject to regulation under the Resource Conservation and Recovery Act, or RCRA, and often cleanup is pursued under RCRA rather than Superfund. EPA has a policy of not placing any sites on the NPL that could be comparably addressed under a RCRA Subtitle C Corrective Action,¹⁸ and it is possible that many potential PFAS sites could be cleaned up this way.

Land application of sewage sludge as fertilizer is unlikely to create new liability under CERCLA

Farmers who apply biosolids as a fertilizer and the wastewater facilities that provide the sludge are unlikely to be held liable under CERCLA. Section 101(22) of CERCLA exempts “the normal application of fertilizer” from the definition of “release.”¹⁹ Applying biosolids to farm fields would constitute the normal application of fertilizer and therefore would not be considered a “release” of a hazardous substance.

Application of biosolids as fertilizer is a longstanding practice that has not yet resulted in significant liability for farmers or utilities. Because they are often a product of wastewater treatment, biosolids can contain a variety of pollutants, even when treated. A 2018 report by the EPA Office of Inspector General identified more than 350 contaminants identified in biosolids applied to lands.²⁰ Among the 352 contaminants, 61 contaminants were identified as “acutely hazardous, hazardous, or priority pollutants” in other programs, including CERCLA. The presence of these CERCLA hazardous substances in biosolids has not historically resulted in any significant liability for wastewater treatment facilities or farmers. The OIG report also found that “EPA has reduced staff and resources in the biosolids program over time, creating barriers to addressing control weaknesses identified in the program.” Given the presence of other CERCLA hazardous substances in biosolids, EPA’s limited resources in the biosolids program, and the application of the fertilizer exemption, the mere addition of PFAS chemicals to the CERCLA hazardous substance list is unlikely to create any new liability risk.

James Slaughter, an attorney with Beveridge & Diamond and an expert on biosolids issues, recently told *Inside EPA* that he also believes that concerns over CERCLA liability from biosolids are overblown.²¹ He pointed to the fertilizer exemption and also said that “Biosolids have long had trace amounts” of chemicals that are CERCLA hazardous substances, and that designating PFAS as hazardous substances “won’t likely trigger new liability.”

Creating permit requirements will limit CERCLA liability for water utilities

¹⁶ legis.state.pa.us/cfdocs/billinfo/billinfo.cfm?syear=2019&sind=0&body=H&type=B&bn=1364

¹⁷ <https://www.gklaw.com/Godfrey-Kahn/Full-PDFs/StateofWI2019-2020Legislature-2019CompoundsBill.pdf>

¹⁸ <https://www.epa.gov/superfund/superfund-cleanup-alternatives>

¹⁹ 42 U.S.C. § 9601(22)(D).

²⁰ https://www.epa.gov/sites/production/files/2018-11/documents/epa_oig_20181115-19-p-0002.pdf

²¹ <https://insideepa.com/daily-news/potws%E2%80%99-legal-uncertainty-drives-fear-over-pfas-superfund-designation>

PFAS is currently not regulated under the Clean Water Act but doing so would limit future liability for utilities. Some legislative proposals like H.R. 5539 introduced by Representative Chris Pappas would require EPA to establish effluent limitation guidelines and pretreatment standards under the Clean Water Act.²² It would also subject PFAS releases would also be subject to 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.²³ This provision in CERCLA was Congress’ recognition that an entity whose releases are being regulated under the Clean Water Act should not be further penalized for those releases under CERCLA. If a release is “federally permitted,” there is no CERCLA liability for costs of responding to those releases. If wastewater utilities release PFAS in compliance with an NPDES permit that includes limits on PFAS releases, those utilities will be protected from future liability. Establishing these effluent and pretreatment requirements would also reduce the amount of PFAS going to drinking water utilities, reducing their cleanup burden.

There are liability limits, affirmative defenses, and enforcement discretion to make sure polluters, not innocent parties, pay for cleanup

The vast majority of PFAS contamination has been caused by industrial polluters and through the discharge of PFAS-laden firefighting foam. EPA’s approach to CERCLA liability has evolved over the statute’s 40-year history, and there are many tools – including liability exemptions, 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. Under Section 122(g) of CERCLA, EPA can, and often does, quickly make “de minimis” settlements with parties that contributed only a small amount to the pollution.²⁴ EPA also has the discretion to make “ability to pay” settlements.²⁵ A settlement with EPA creates a contribution shield protecting that party from additional CERCLA liability and removing them from the case. That means other potentially responsible parties at a site are barred from seeking financial contribution from parties that have already settled with EPA. EPA also has discretion to allowed delayed payments, payment schedules, and in-kind contributions from municipal parties in settlement agreements.

CERCLA also has liability limits for certain parties, like innocent landowners, contiguous property owners, and bona fide prospective purchasers.²⁶ 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.

²² See H.R. 5539, the Clean Water Standards for PFAS Act of 2020; H.R. 3616, the Clean Water Standards for PFAS Act of 2019.

²³ 42 U.S.C. § 9607(j).

²⁴ 42 U.S.C. § 9622(g).

²⁵ <https://www.epa.gov/enforcement/guidance-superfund-ability-pay-determinations>

²⁶ <https://www.epa.gov/enforcement/landowner-liability-protections>.

CERCLA also includes some 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,²⁷ and EPA can reimburse municipalities for temporary emergency measures.²⁸ 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.²⁹

Potentially responsible parties can also protect themselves by taking proactive cleanup actions through state programs. As discussed, EPA sees listing on the National Priorities List as 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.³⁰

Concerns about liability from landfill disposal are overstated

Utilities have expressed concern that they could be liable for disposal of PFAS treatment byproducts like spent carbon filters that are disposed of in non-hazardous landfills and may leach into the surrounding community. There is unlikely to be a significant amount of municipal liability due to landfill disposal of PFAS treatment byproducts.

There are no current federal requirements for water utilities or municipal water treatment facilities to treat water for PFAS. It is unclear how much PFAS treatment waste is being generated by these facilities or how long they have been disposing of this waste in landfills. To the extent that utilities are generating PFAS waste and sending it to landfills, this alone is unlikely to trigger significant CERCLA liability. Even non-hazardous waste landfills today are subject to strict state requirements and are designed to limit releases into the environment. Landfills cannot be built in environmentally sensitive areas, and they have monitoring systems that check for releases into groundwater and the air.³¹ If there is a release of PFAS, it is still unlikely that utilities will face significant CERCLA liability. Landfills accept multiple kinds of waste from multiple sources. As such, landfill cleanups under CERCLA are complex and often involve multiple contaminants, and liability is distributed among hundreds, if not thousands, of potentially responsible parties. For these reasons, it is highly unlikely that utilities with limited resources would be targeted for significant liability under one of these cleanups.

Although it is not required under current law, utilities can take extra precautions by disposing of PFAS waste in landfills that accept waste regulated under Subtitle C of the Solid Waste Disposal Act. This is a proactive approach to limiting potential liability from PFAS waste. Utilities can and should take steps to protect themselves from future liability by treating PFAS as Subtitle C waste.

²⁷ 42 U.S.C. § 9607(d)(2).

²⁸ 42 U.S.C. § 9623.

²⁹ 42 U.S.C. § 9628(b).

³⁰ *Id.*

³¹ <https://www.epa.gov/landfills/basic-information-about-landfills>.

EPA does not have a well-established process for designating hazardous substances under CERCLA

Some groups have also expressed concern that the H.R. 535 would circumvent EPA's procedures for designating hazardous substances under CERCLA. The fact is that EPA does not have a well-established process for adding new substances to the hazardous substances list under Section 102 of CERCLA. The vast majority of hazardous substances have been added by reference from other statutes like the Clean Air Act, the Clean Water Act, and RCRA. EPA incorporated 698 hazardous substances by reference in 1985.³²

Moreover, there is ample precedent for Congress to legislate on specific chemicals or direct agencies to take action on specific chemicals. For example, the substances on the initial list of hazardous air pollutants under Section 112 of the Clean Air Act was established by Congress.³³ Congress also directed EPA to develop criteria for nitrogen oxides under the Clean Air Act³⁴ Congress banned PCBs as a class, in 1976, and elemental mercury, in 2016, under TSCA.³⁵ Congress banned the sale of certain products containing phthalates in 2008.³⁶ Congress has also used its authority to exempt chemicals, such as coal tar chemicals in cosmetics, from certain regulations.³⁷

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 Superfund 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,³⁸ military installations are likely among the most contaminated sites in the United States. The Pentagon has said that there are at least 401 known or suspected military sites with PFAS contamination.³⁹ At a September 12, 2019 media briefing, the Pentagon indicated that there are likely even more sites than that.⁴⁰ EWG has identified 297 military sites with known PFAS detections.⁴¹ Some of the most contaminated known sites are military installations like the former Wurtsmith Air Force Base in Oscoda, Michigan,⁴² Pease Air Force Base in Portsmouth, New Hampshire,⁴³ and Willow Grove Naval Air and Air Reserve Station, in Horsham,

³² 50 Fed. Reg. 13456 (Apr. 4, 1985) ("The Act defines a set of 'hazardous substances' by reference to other environmental statutes (section 101(14)); this list currently contains 698 substances").

³³ 42 U.S.C. § 7412(b).

³⁴ 42 U.S.C. § 7409(c).

³⁵ 15 U.S.C. § 2605(e)-(f).

³⁶ 15 U.S.C. § 2057c.

³⁷ 21 U.S.C. § 361(a).

³⁸ <https://www.ewg.org/research/pfas-chemicals-contaminate-least-110-us-military-sites/pentagon-s-50-year-history-pfas>

³⁹ https://partner-mco-archive.s3.amazonaws.com/client_files/1524589484.pdf

⁴⁰ <https://insideepa.com/daily-news/dod-braces-increase-pfas-site-universe-cleanup-cost-estimates>

⁴¹ <https://www.ewg.org/release/new-pfas-detections-reported-90-additional-army-installations>

⁴² https://www.michigan.gov/pfasresponse/0,9038,7-365-86511_82704_83952---,00.html

⁴³ <https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0101213>

Pennsylvania.⁴⁴ PFAS contamination at Cannon Air Force Base was responsible for subsequent contamination of cattle and closure of Highland Dairy in Clovis, New Mexico.⁴⁵

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 response, the Air Force claimed that:

[PFAS] 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.⁴⁶

The Air Force made similar arguments in a brief filed on September 7, 2019 in *State of New Mexico v. United States*.⁴⁷ *Inside EPA* reported in March 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.”⁴⁸

Last year, the Navy took steps to remove 3,500 tons of PFAS-contaminated soil from the former Naval Air Station Joint Reserve Base Willow Grove, in Horsham, Pa. However, a Navy official announced earlier this summer that it would stop the practice after it was unable to find a landfill willing to take the contaminated soil. To justify stopping the practice, another Navy official said that “there is no requirement to take the soil out, there are no limits, there are no regulations.”⁴⁹

Designating PFAS as a hazardous substance under CERCLA will help hold the Department of Defense accountable at contaminated sites and ensure that it respects state and federal cleanup standards.

Conclusion

EPA has known about the health and environmental concerns linked to PFAS for nearly twenty years and has failed consistently to commit to concrete action and deadlines. Under these circumstances, it is appropriate for Congress to use its legislative authority to require EPA to

⁴⁴ <https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0303820>

⁴⁵ <https://www.milkbusiness.com/article/air-force-pollution-forces-new-mexico-dairy-to-euthanize-4000-cows>

⁴⁶

https://www.michigan.gov/documents/pfasresponse/Letter_from_USAF_Termaath_to_DEQ_Seidel_dated_120718_648045_7.pdf

⁴⁷ United States’ Opposition to Plaintiff’s Motion for Preliminary Injunction and Cross-Motion to Dismiss, *State of New Mexico v. United States*, Case No. 1:19-cv-00178-MV-JFR.

⁴⁸ <https://insideepa.com/daily-news/air-force-seeks-preserve-federal-test-case-states-pfas-enforcement>

⁴⁹ <https://www.burlingtoncountytimes.com/news/20190606/navy-official-probably-no-more-removal-of-pfas-contaminated-soil>

take action. Superfund designation is an important first step in to jumpstart the cleanup process at contaminated sites across the United States.