



U.S. Chamber of Commerce

Existing Cleanup Authorities and Alternatives to CERCLA

Prepared for the U.S. Chamber of Commerce



Introduction

The Environmental Protection Agency (EPA) should use current authorities to respond to sites with releases of perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS) instead of supporting a hazardous substance listing under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). EPA has authority under existing environmental law to respond to any site where there is a release or substantial threat of a release of any pollutant or contaminant that may present an imminent and substantial danger to public health or welfare, regardless of whether such “pollutant or contaminant” has been designated a “hazardous substance” under CERCLA.

In addition to EPA’s authority over 500,000 existing CERCLA sites around the country, the agency has further power to order PFAS cleanups under other environmental statutes, including the Resource Conservation and Recovery Act (RCRA), the Safe Drinking Water Act (SDWA), and the Clean Water Act (CWA).

EPA should use its existing authorities not only to speed up necessary cleanups but also to avoid the numerous adverse impacts on businesses, localities, and families from a CERCLA designation. A CERCLA hazardous substance designation will trigger many avoidable, unintended consequences and impacts, both economic and practical on companies and communities across our nation.

Major municipal organizations and their members from large cities to rural towns have pointed out the enormous expense actions local communities would take to minimize their exposure to CERCLA liability and have urged EPA to abandon the CERCLA designation until the agency studies these impacts. Using EPA’s existing authorities will prevent several harmful consequences of a CERCLA hazardous substance designation, including the inevitable lawsuits costing hundreds of millions of dollars and slowdowns for existing cleanups and ongoing property development.

The authorities listed below allow EPA to address releases of PFOA and PFOS that may constitute an imminent and substantial danger to health or the environment. They include (1) ongoing CERCLA cleanup at federal facilities, (2) National Priority List (NPL) sites and other CERCLA sites, (3) RCRA permitted facilities, and (4) emergency order authority under the SDWA. Separately and together, these authorities and programs that are already in place give EPA the targeted tools to clean up PFOA and PFOS sites efficiently and effectively and avoid the significant negative consequences of the CERCLA hazardous substance designation.

Existing Authorities Under Current CERCLA

Today, hundreds of thousands of sites around the country fall within the scope of CERCLA. CERCLA empowers EPA and other federal agencies to require remediation of sites to achieve EPA’s cleanup goals and will be protective of human health and the environment. Existing legal authorities allow EPA and other federal agencies to respond to PFOA and PFOS releases at existing sites under the CERCLA program, including federal agency cleanups, NPL sites, other high-priority sites, and brownfields.

Existing CERCLA Authority at Federal Agency Sites. Federal agencies and private industry conduct cleanup activities pursuant to CERCLA¹ as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986. Congress created different cleanup programs for federal and nonfederal sites in SARA. Executive Order 12580² delegates specific CERCLA presidential authorities to the heads of the appropriate federal agencies. Of significance, the Department of Defense (DoD) and Department of Energy³ are delegated as the lead agencies to conduct cleanup activities for releases from their activities in collaboration with EPA.

Federal facilities must address both releases of hazardous substances at a site and releases of other pollutants and contaminants that may present an imminent and substantial danger to public health or welfare under CERCLA Section 104.⁴ Federal agencies like DoD are currently investigating and remediating PFOA and PFOS releases under this CERCLA provision.

DoD has undertaken assessments of military installations and National Guard facilities for PFAS, including PFOA and PFOS, as part of its efforts to proactively address PFOA and PFOS under existing authorities and— consistent with CERCLA—to examine potential releases of these chemicals and determine if cleanup actions are warranted.

DoD uses a nationwide risk-based approach to prioritize sites. Specifically, as of March 2021, DoD is performing assessments of PFOA/PFOS use or potential release at 698 sites.⁵ Of these, 335 are Army components, 149 are Navy components, 203 are Air Force components, 7 are Defense Logistics Agency (DLA) sites, and 4 are Formerly Used Defense Sites (FUDS). Furthermore, of the total 698 DoD installations, 313 are active sites, 266 are National Guard sites, 115 are Base Realignment Closure (BRAC) sites, and 4 are FUDS. Federal remedial activity under CERCLA illustrates that agencies are responding to releases of certain PFAS. For example, of the 335 Army sites (see Table 1), 111 have [released reports](#) to the public on the findings from the site investigation for certain PFAS. Twenty-five of the 111 reporting installations have conclusively detected certain PFAS. Over half (13) of these detected PFAS at trace levels, which cannot even be reliably quantified given reporting limits. The rest of the Army sites found no PFAS.

Table 1: DoD Sites Performing Assessments of PFAS Use or Potential Release by State⁶

State/Region	DoD Sites PFAS	State/Region	DoD Sites PFAS
Alabama	13	Missouri	12
Alaska	18	Nebraska	6
Arizona	15	Nevada	7
Arkansas	6	New Hampshire	9
California	75	New Jersey	6
Colorado	14	New Mexico	8
Connecticut	5	New York	21
Delaware	6	North Carolina	11
District of Columbia	5	Ohio	15
Florida	31	Oklahoma	10
Georgia	19	Oregon	13
Guam	4	Pennsylvania	17
Hawaii	26	Puerto Rico	12
Idaho	5	Rhode Island	6
Illinois	17	South Carolina	13
Indiana	13	Tennessee	15
Iowa	7	Texas	30
Kansas	9	Utah	10
Kentucky	8	Vermont	4
Louisiana	11	Virgin Islands	1
Maine	11	Virginia	29
Marshall Islands	1	Wake Island	1
Maryland	21	Washington	17
Massachusetts	12	West Virginia	7
Michigan	16	Wisconsin	8
Minnesota	9	Wyoming	5
Mississippi	13		

During the initial investigation phase of CERCLA (preliminary assessment/site inspection [PA/ SI]), [federal screening levels](#) or toxicity values are used to determine if there is an unacceptable risk at the site that requires further investigation and/or potential cleanup actions. EPA established federal health advisory levels for four PFAS ([PFOS], [PFOA], perfluorobutane sulfonic acid [PFBS], and hexafluoropropylene oxide dimer acid [HFPO-DA]) in June 2022.

While CERCLA is a federal statute, the CERCLA cleanup process can incorporate certain state-based standards. As a result, federal agencies often perform remediation to meet certain state cleanup levels. State standards are evaluated during the remedial investigation/feasibility study [RI/FS] phase of CERCLA as part of the applicable or relevant and appropriate requirements (ARARs) analysis under Section 121 of CERCLA. ARAR determinations are made on a site-by-site basis to determine the appropriate cleanup levels.

Like privately owned and operated sites, EPA can list federal facilities on the NPL, the highest priority sites under CERCLA. CERCLA section 105(a)(8) provides the statutory criteria for compiling the NPL.⁷ The Hazardous Ranking System (HRS) is the principal mechanism that EPA has used to place uncontrolled waste sites on the NPL since March 1990.⁸ The HRS scoring system used information collected in a PA/SI to assess the relative potential of sites that pose a threat to human health or the environment. Any site scoring 28.5 or greater is eligible for the NPL, including federal facilities. While EPA's implementing regulations for CERCLA require the agency to update the NPL at least once a year, the agency updates the NPL twice a year.⁹

EPA recently proposed to add a federal facility to the NPL due to certain PFAS contamination and contamination from other substances. In [September 2021](#), EPA proposed to add a site operated by the U.S. Army Corps of Engineers. [The Bradford Island site](#) is located within the Bonneville Dam complex on Bradford Island within the Columbia River in Oregon. EPA aims to list the site even though the Corps of Engineers has conducted remedial activities at the site for over 20 years. EPA's action suggests that CERCLA provide multiple ways for federal agency releases of PFOA and PFOS to be addressed without a hazardous substance designation.

Existing National Priority List CERCLA Sites. EPA can require investigation and cleanup of PFOA and PFOS at all CERCLA NPL sites even without a new hazardous substance designation if it treats PFOA and PFOS as pollutants and contaminants that require cleanup consistent with the statute.

If EPA allows waste to remain on-site for a CERCLA cleanup, CERCLA requires EPA to conduct a review of the remedy every five years.¹⁰ As part of these reviews, EPA examines whether there have been any changes to site conditions or to health information since the remedy was approved or last reviewed. Five-year reviews encompass more than hazardous substance releases and consider effects from substances that are hazardous substances, pollutants, and contaminants. As a practical matter, almost all NPL sites have some ongoing remediation and on-site contaminants; thus, they are undergoing reviews every five years.

EPA lists 1,788 sites that are or at one time were on the NPL. EPA has ordered PFAS investigations at many of these NPL sites as part of its five-year reviews. Research commissioned by the U.S. Chamber included a review of all the five-year reviews of NPL sites over an 18-month period. Of the 265 remedy reviews in this period, 8% of these sites had PFAS releases detected, primarily in existing site groundwater monitoring wells. EPA suspects PFAS releases at another 13% of the 265 sites and either has ordered environmental sampling or is considering further PFAS investigations.¹¹

These data show that EPA is already actively considering and ordering investigations of potential releases of PFOA and PFOS from NPL sites, which include more than 1,788 sites around the country. Responsible parties for these sites may be obligated to modify the site's remedy to address any risk from the release of PFOS and PFOA. These sites may also be eligible for additional Superfund spending to pay for PFOA/PFOS remediation where there is no viable responsible party or where there is a Superfund share of the cleanup.

Existing CERCLA Authority for non-NPL Sites. CERCLA's reach extends to any site where there has been a release of a hazardous substance, not just sites listed on the NPL. If PFOA and PFOS are treated as pollutants or contaminants, EPA can use its existing CERCLA authorities at existing CERCLA sites to investigate and remediate releases of PFOA and PFOS. There are nearly 500,000 of these sites in the U.S. under CERCLA authority.

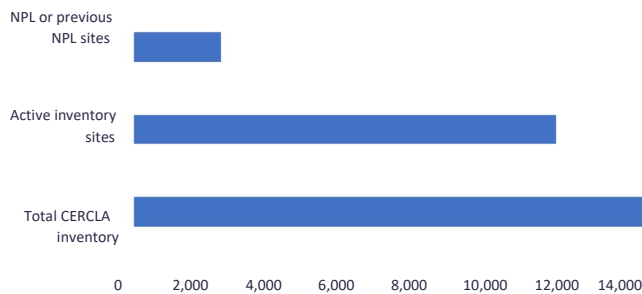
Although EPA has a detailed classification scheme for sites under CERCLA jurisdiction, sites can generally be grouped into three broad categories: NPL sites, active inventory sites, and brownfield sites. Specifically, as of the August 23, 2021, update, there are a total of 13,316 unique sites listed under CERCLA; of those, 11,038 are active inventory sites. Brownfield sites are locations where a release is suspected or has occurred at a relatively low hazard level, including not-in-use industrial or commercial sites. EPA's most recent estimate is that there are over 450,000 brownfield sites in the U.S.

These sites are listed under CERCLA active inventory and are in the "middle"—lacking an HRS score high enough for an NPL listing but posing a suspected threat to human health and the environment that requires additional information before EPA can decide whether action is needed.

As Figure 1 shows, EPA’s active inventory is large—nearly five times the number of current or former NPL sites. EPA often cannot address these active inventory sites in a timely manner due to a lack of agency resources and/or the absence of a financially viable responsible party to conduct a site investigation and cleanup. Designating PFOA and PFOS as hazardous substances would only make these backlogs worse.

Figure 1: Current and Former NPL Sites and Active Inventory Sites

CERCLA Active Inventory



If EPA suspects PFAS releases of concern at active inventory CERCLA sites, it has multiple ways to address the contamination. It can order the identified responsible parties for the site to investigate and gather data on releases of PFOA and PFOS as part of the overall investigation into hazardous substance releases. It can also spend Superfund resources to conduct such an investigation. Finally, EPA can rescore the site under the HRS and propose to add it to the NPL, increasing its priority for EPA and Department of Justice resources.¹² A CERCLA hazardous substance designation for PFOA and PFOS would only disrupt these processes and create additional requirements that would slow remediation timelines.

CERCLA Brownfield Grants

In 2002, Congress defined “brownfield” sites as—

(39) Brownfield site.--(A) In general.--The term 'brownfield site' means real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.

Therefore, existing brownfield sites that may have PFAS releases should qualify for funding to address PFAS at the site as long as it is established that PFAS qualify as pollutants or contaminants as defined under CERCLA. If EPA or states identify PFAS as meeting the definition of pollutant or contaminant among the hundreds of thousands of brownfield sites, regulatory agencies can use brownfield funds to investigate and remediate those releases.

Congress created the Brownfield Program to respond to the hundreds of thousands of CERCLA sites that do not have large enough potential risks to be an NPL site or an EPA priority and for which EPA has insufficient resources to evaluate them and release them from CERCLA jurisdiction. As a result of a hazardous substance designation, private parties, banks, and other financial institutions may refuse to participate in the development of these brownfield sites due to concerns over assuming PFAS or other cleanup liability.

The Brownfield Program arises from an amendment to CERCLA that allows local governments and states to receive grants to encourage economic development of existing industrial and commercial locations. Congress also authorized EPA to offer lenders a shield from CERCLA liability if they engage in certain due diligence inquiries before extending credit to project developers. Since 2002, Congress has repeatedly expanded EPA’s Brownfield Program, which now consists of several grant programs to help communities and states administer brownfield cleanup and redevelopment programs.

Approximately 170 grantees per year receive brownfield funding to assess sites, cleanup sites, and manage brownfield programs. Since the program started, EPA reports that over 11,000 CERCLA brownfield sites have been assessed and/or remediated to allow for reuse (see Table 2).

In addition, EPA has given grants to states and tribes to administer state and tribal brownfield programs. These state programs can assist the return to reuse of sites not only under CERCLA but also under the RCRA and other authorities. While a site is classified as a brownfield from a known or suspected release of a hazardous substance, grantees can use brownfield grants to manage the potential environmental hazards from hazardous substances, pollutants, or contaminants.

Table 2: Summary of Brownfield Program Accomplishment as of August 1, 2021

Performance Measure	FY2021 Targets	FY2021 Accomplishments	Cumulative Program Accomplishments
Properties Assessed	1,300	1,463	34,076
Properties Cleaned Up	130	145	2,239
Properties Made Ready for Reuse	684	519	9,141
Acres Made Ready for Anticipated Reuse	NA	11,005	143,888

RCRA Permitted Facilities

Other environmental statutes besides CERCLA can be used to address releases of PFOA and PFOS. Owners and operators of facilities that treat, dispose, or store hazardous waste and are permitted under the RCRA must take corrective action to clean up on-site hazardous constituent releases. States can seek EPA authorization to carry out federal RCRA regulations in their states and be the primary regulator. For over 40 years, EPA and states have overseen corrective action cleanups at RCRA permitted sites.

EPA and states have used their permitting authority to order RCRA permit holders to clean up on-site and off-site releases of PFOA and PFOS at sites where there has been a release of a hazardous constituent. Currently, approximately 885 operating facilities and 575 closed facilities have RCRA permits. Many of these facilities are large manufacturing plants, chemical facilities, oil refineries, iron and steel mills, or waste disposal sites.

States are using RCRA authorities to address PFAS releases. In Nebraska, EPA and state agencies have required Offutt Air Force Base (AFB) environmental officials to take corrective action on PFOA, PFOS, and other PFAS under the installation’s hazardous waste permit. Groundwater sampling for PFAS was planned sitewide and specifically includes a base firefighting training area. Offutt AFB and state officials performed a screening level site inspection at several locations on Offutt where aqueous film forming foams were historically used or stored.

In New Jersey, EPA is the lead agency overseeing RCRA Corrective Action work at the Chemours Chambers Works complex located in Deepwater, New Jersey. The state and localities have required the company to sample off-site wells as part of its permitted corrective action program. These examples show that EPA, working with states, has relied on RCRA to address PFOA and PFOS releases.

Cleanup Under the Safe Drinking Water Act

Under SWDA Section 1431, EPA is granted “emergency powers” to issue imminent and substantial endangerment (I&SE) orders to abate public health from “a contaminant that is present in or is likely to enter a public water system or an underground source of drinking water” if the appropriate state and local authorities have not acted to protect public health.¹³ These I&SE orders can require persons who caused or contributed to the endangerment to provide alternative water supplies or treat contamination.

In 2018, EPA's Office of Enforcement and Compliance Assurance extensively updated Section 1431 guidance and provided a detailed description of EPA authority, the application of the authority, and the recommended steps in an order issued under Section 1431.¹⁴ According to that guidance, EPA views its authority under the SDWA as very broad—relying, for example, on Section 1401(6) of the SDWA, which defines “contaminant” to include “any physical, chemical, biological, or radiological substance or matter in water.” The guidance also discusses EPA's interpretations of “imminent” and “endangerment.” According to the guidance—

- An “endangerment” may include not only actual harm but also a threatened or potential harm. No actual injury need ever occur. Therefore, while the threat or risk of harm must be “imminent” for EPA to act, the harm itself need not be. Public health may be endangered imminently and substantially “both by a lesser risk of a greater harm and by a greater risk of a lesser harm”; this will ultimately depend on the facts of each case.
- An endangerment is “imminent” if conditions that give rise to it are present, even though the actual harm may not be realized. The guidance relies on lower court decisions indicating that an “imminent hazard” may be declared at any point in a chain of events that may ultimately result in harm to the public.

Based on this guidance, EPA's position is that it has substantial authority to address releases that could potentially affect underground sources of drinking water. EPA has used its emergency powers under Section 1431 to require responses to PFOA/PFOS releases at four sites, three of which involved DoD:

- Warminster Naval Warfare Centre, Pennsylvania: In 2014, EPA issued an administrative enforcement order directing the U.S. Navy to address PFOS in three drinking water supply wells at and near this NPL site.
- Former Pease Air Force Base, New Hampshire: In August 2015, EPA issued an administrative enforcement order to require the Air Force to design and construct a system to treat water systems contaminated from releases of PFOA and PFOS.
- Horsham Air Guard Station/Willow Grove, Pennsylvania: In 2015, EPA issued an order directing the Air Guard and Air Force to treat on-site drinking water wells and provide treatment for private off-site wells.
- Chemours Washington Works Facility, West Virginia, and Ohio: EPA issued three emergency orders to this facility requiring DuPont and Chemours to offer water treatment, connection to a public water system, or bottled water where PFOA concentrations exceeded 70 parts per trillion (ppt).

Other Authorities

In addition to these principal authorities, EPA has other statutory authority to address PFAS releases in certain circumstances, including emergency and other authority under the Clean Water Act (e.g., spill response) and other laws. The fact that these authorities have been invoked in the past to address PFOS and PFOA shows not only that a CERCLA hazardous substance designation is unnecessary but also that it would significantly disrupt existing and ongoing remediation processes.



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Endnotes

¹ 42 U.S.C. § 9601 et seq

² Executive Order 12580, "Superfund implementation," January 23, 1987, as amended.

³ <https://www.energy.gov/sites/default/files/2022-11/DOE%20Initial%20PFAS%20Assessment%20-508.pdf>

⁴ 42 U.S.C. § 9604(a)

⁵ Installations Where DoD is Performing an Assessment of PFAS Use or Potential Release (March 31, 2021).

<https://media.defense.gov/2021/Mar/23/2002606229/-1/-1/0/Installations-Being-Assessed-for-PFAS-Use-or-Potential-Release-as-of-March-31-2021.PDF>

⁶ <https://media.defense.gov/2021/Mar/23/2002606229/-1/-1/0/Installations-Being-Assessed-for-PFAS-Use-or-Potential-Release-as-of-March-31-2021.PDF> (Table 1)

⁷ 42 U.S.C. § 9605(a)(8)

⁸ 40 C.F.R. 300.425 and EPA "Hazard Ranking System Guidance Manual" OSWER Publication 9345.1-07, November 1992.

⁹ EPA Press Release "EPA Takes Action to Address Risks to Public Health by Updating the Superfund National Priorities List," September 8, 2021.

¹⁰ 42 U.S.C. § 9621(c)

¹¹ "Review of 5-year reviews of CERCLA NPL Records of Decision as of August 21, 2021."

¹² 42 U.S.C. § 9621(c)

¹³ Under CERCLA and implementing executive orders, the Department of Justice defends challenges to EPA's unilateral orders for cleanups under CERCLA as well as litigates against potentially responsible parties to obtain resources to carry out CERCLA activities at sites.

¹⁴ EPA Memorandum from the Office of Enforcement and Compliance Assurance to Regional Enforcement Directors, "Updated Guidance on Emergency Authority under Section 1431 of the Safe Drinking Water Act" (May 30, 2018). available at <https://www.epa.gov/sites/default/files/2018-09/documents/updatedguidanceonemergencyauthorityundersection1431sdwa.pdf>