

What's the Guy's Name on Second . . . I Don't Know¹: CERCLA, Environmental Health, Environmental Liability, and *Guam*

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“It really boils down to this: that all life is interrelated. We are all caught in an inescapable network of mutuality . . .”[†]

¹ This title paraphrases the “Who’s on First?” comedy sketch by Bud Abbott and Lou Costello, made famous in *THE NAUGHTY NINETIES* (Universal Pictures 1945).

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[†] Martin Luther King, Jr., A Christmas Sermon on Peace (Dec. 24, 1967).

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) was a hastily drafted statute meant to quell the growing public outcry after the discovery of massive amounts of hazardous substances located throughout the United States. The uncontrolled dumping of hazardous substances was a manifestation of a laissez-faire attitude toward the environment and the regulation of hazardous pollutants. CERCLA was created to counteract years of environmental neglect. Nevertheless, the confusing nature of CERCLA has left many legal questions regarding which potentially responsible parties (PRPs) are liable and when their CERCLA liability is finally resolved. Once clarified, PRPs can begin the process of cleaning hazardous and toxic areas. Additionally, a clearer settlement and liability process can more readily improve the environmental health of impacted communities—areas that are disproportionately located within communities of color, Indigenous communities, low-income communities, and other marginalized communities.

Recently, the Supreme Court addressed issues relating to PRP settlements and potential liability in Territory of Guam v. United States. The case has significant environmental justice implications because it directly relates to the liability and cleanup of Indigenous land within the United States. Guam is a United States territorial island plagued with multigenerational environmental degradation caused by colonization, war, and decades of unrestricted dumping. Research shows that environmental degradation and its resulting health impacts disproportionately affect—and often ravage—the most powerless, voiceless, and vulnerable populations. The Guam residents have become epitomic representatives of an environmental caste created by the systemic environmental injustice and oppression of subordinated communities. The facts surrounding the case further reveal the need for CERCLA procedures that expedite settlements and cleanups.

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INTRODUCTION

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, also commonly known as “Superfund”)² was a hastily drafted piece of bipartisan legislation created in 1980 to address public outcry following the discovery of a massive number of hazardous sites throughout the United States.³ By that time, the prevalence of uncontrolled hazardous waste contamination called for immediate federal response.

² Comprehensive Environmental Response, Compensation, and Liability Act of 1980, Pub. L. No. 96-510, 94 Stat. 2767 (codified as amended at 42 U.S.C. §§ 9601–9675); Superfund Amendments and Reauthorization Act of 1986, Pub. L. No. 99-499, 100 Stat. 1613.

³ Frank P. Grad, *A Legislative History of the Comprehensive Environmental Response, Compensation and Liability (“Superfund”) Act of 1980*, 8 COLUM. J. ENV’T L. 1, 1–2 (1982); Martina E. Cartwright, *Superfund: It’s No Longer Super and It Isn’t Much of a Fund*, 18 TUL. ENV’T L.J. 299, 301–02 (2005); see also *The Origins of EPA*, EPA (Sep. 5, 2025) [hereinafter *EPA Origins*], <https://www.epa.gov/history/origins-epa> [<https://perma.cc/Y92S-GNJV>] (describing when and why the EPA was formed).

Since its inception in 1970, the Environmental Protection Agency (EPA) has discovered thousands of contaminated land sites.⁴ It is now known that over 70 million Americans live within three miles of a CERCLA site.⁵ Even more disconcerting is the fact that almost 21 million people (comparable to the population of the state of New York) live within only one mile of a hazardous site.⁶ Additionally, the EPA has learned that over twenty-two percent of all children in the United States live within three miles of a Superfund site, including six percent who live within one mile of one of these hazardous sites.⁷ These numbers are astonishing given our technological advances and the breadth of knowledge we have concerning the effects of hazardous substances on our health. Nevertheless, millions of Americans remain at serious risk from hazardous chemical pollutants.

Furthermore, the laws associated with hazardous cleanup remain confusing, and related legal actions can easily total millions of dollars and last for years. Meanwhile, the communities affected by the pollution may be left in an indeterminate state of toxic limbo. Responsible parties may expedite cleanup and lessen their burden through settlements, but CERCLA settlement procedures are often very difficult to understand and navigate. Potentially responsible parties (PRPs) have been overwhelmed by questions surrounding settlements of CERCLA suits and the rights associated with the settlement of these suits with state and federal regulators for decades. However, the Supreme Court recently addressed issues relating to PRP settlements in the case of *Territory of Guam v. United States (Guam)*.⁸

This Article begins, by way of background, with a review of the history and development of CERCLA and its close relationship to public health. It includes a brief discussion of CERCLA response actions, liability, and defenses. This Article next examines CERCLA's contribution and contribution protection sections. Finally, this Article analyzes *Guam* and some of the CERCLA issues left unanswered.

⁴ Cartwright, *supra* note 3, at 303; *EPA Origins*, *supra* note 3.

⁵ OFF. OF LAND & EMERGENCY MGMT., POPULATION SURROUNDING 1,857 SUPERFUND REMEDIAL SITES 1 (2020), <https://www.epa.gov/sites/default/files/2015-09/documents/webpopulationsuperfundsites9.28.15.pdf> [<https://perma.cc/K9ZD-AU3M>].

⁶ *Id.*; Table 2: *Estimated Population, Land Area, and Population Density by County, New York State—2022*, N.Y. STATE, https://health.ny.gov/statistics/vital_statistics/2022/table02.htm [<https://perma.cc/F8WH-APAH>] (last visited Nov. 20, 2025).

⁷ OFF. OF LAND & EMERGENCY MGMT., *supra* note 5, at 1.

⁸ 141 S. Ct. 1608 (2021).

I. CERCLA: POLLUTION AND PUBLIC HEALTH

The discovery of thousands of Superfund sites across the United States is rooted in a history of unregulated dumping and inept management of hazardous substances leading to environmental and community injustices.⁹ In 1980, during the debate over CERCLA's passage, "Senator Stafford of Vermont declared that the problem was 'an issue of justice, because we are dealing with human lives that are devastated by the impacts of these chemicals.'"¹⁰ The Senator went on to detail the significance between a clean environment and human health, reflecting on the ways in which communities have already been impacted: "children born with permanent defects, adults stricken with crippling diseases, [and] entire communities with their supplies of drinking water contaminated beyond use."¹¹ Despite a demonstrated awareness of these impacts dating back to CERCLA's inception in 1980, the ongoing management and cleanup process continues to prove inadequate.

CERCLA stands at the intersection of environmental health and justice, with the explicit goal of managing environmental risk.¹² It is central to the regulatory structure of the United States in the management of environmental justice, working to address growing concerns relative to the health and environmental risks posed by hazardous sites.¹³ These concerns are well founded because Superfund sites continue to pose dangers to human health and the environment via contaminated soil, air,

⁹ *What is Superfund?*, EPA (Sep. 17, 2025) <https://www.epa.gov/superfund/what-superfund/> [<https://perma.cc/R262-FL76>].

¹⁰ John A. Hird, *Environmental Policy and Equity: The Case of Superfund*, 12 J. POL'Y ANALYSIS & MGMT. 323, 326 (1993) (quoting ENV'T & NAT. POL'Y DIV., A LEGISLATIVE HISTORY OF THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT OF 1980 (SUPERFUND), PUBLIC LAW 96-510, at 153 (Comm. Print, 1983)).

¹¹ *Id.* (quoting ENV'T & NAT. POL'Y DIV., *supra* note 10).

¹² *The Superfund Reform Act: Hearing on H.R. 3000 Before the Subcomm. on Fin. & Hazardous Materials of the H. Comm. on Com.*, 105th Cong. 42 (1998) (statement of Carol M. Browner, Adm'r, EPA) [hereinafter *Hearing on H.R. 3000*] ("The Administration's goals for Superfund reauthorization continue to be to protect human health and the environment; maximize participation by responsible parties in the performance of cleanups; ensure effective State, Tribal and community involvement in decision making; and promote economic redevelopment or other beneficial reuse of sites . . ."); *see also* 42 U.S.C. § 9621(b)(1) (providing that "[t]he President shall conduct an assessment of permanent solutions and alternative treatment technologies or resource recovery technology that, in whole or in part, will result in a permanent and significant decrease in the toxicity, mobility or volume of the hazardous substance, pollutant or contaminant" and that "[t]he President shall select a remedial action that is protective of human health and the environment").

¹³ *See What is Superfund?*, *supra* note 9.

groundwater, surface water, and drinking water.¹⁴ Noting the contamination of fundamental human necessities, it is unsurprising that pollution stands as the leading cause of premature deaths worldwide.¹⁵ In 2015, pollution accounted for an estimated nine million deaths.¹⁶ This number represented sixteen percent of all deaths worldwide.¹⁷ By 2016, twenty-three percent of all deaths worldwide were attributed to the environment.¹⁸

As a response to the releases and threatened releases of hazardous substances that create a danger to public health and the environment, CERCLA was created.¹⁹ The EPA Administrator called CERCLA a “necessary program, dedicated to cleaning up our nation’s hazardous waste sites.”²⁰ In essence, CERCLA is a statute created to protect environmental health and alleviate the dangers communities face from exposure to hazardous pollutants.²¹ Environmental health is a term that focuses on the “relationships between people and their environment.”²² The general idea behind the term is to promote human health and well-being and foster healthy and safe communities.²³ The concept of environmental health encompasses more than a clean environment. Environmental health is a “subset of public health that focuses on the effect of the environment—where we live, work, and play—on populations.”²⁴

¹⁴ Don R. Clay, *Ten Years of Progress in the Superfund Program*, 41 J. AIR & WASTE MGMT. ASS’N. 144, 144 (1991).

¹⁵ Philip J. Landrigan et al., *The Lancet Commission on Pollution and Health*, 391 LANCET 462, 462 (2018).

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ PREVENTING DISEASE THROUGH HEALTHY ENVIRONMENTS: A GLOBAL ASSESSMENT OF THE BURDEN OF DISEASE FROM ENVIRONMENTAL RISKS, WORLD HEALTH ORG. 86 (2016), <https://iris.who.int/server/api/core/bitstreams/ade0e78-3ef0-4b12-95e6-7dd8a97db110/content> [<https://perma.cc/W43C-P4FL>].

¹⁹ *Superfund: CERCLA Overview*, EPA (Sep. 22, 2025), <https://www.epa.gov/superfund/superfund-cercla-overview/> [<https://perma.cc/UM5R-43ZK>].

²⁰ *Hearing on H.R. 3000, supra* note 12, at 42 (stating that CERCLA is “an important, and above all, a necessary program, dedicated to cleaning up our nation’s hazardous waste sites, and protecting public health and the environment”).

²¹ *See id.*

²² *Environmental Health*, AM. PUB. HEALTH ASS’N, <https://www.apha.org/topics-and-issues/environmental-health/> [<https://perma.cc/C3N7-E2E6>] (last visited Nov. 20, 2025).

²³ *Id.*

²⁴ Jennifer R. Black, Matthew Penn & Laurel Berman, *Evolution of Federalism in Environmental Health: Federal, State, and Local Government Control*, 40 J. LEGAL MED. 195, 196 (2020). *See generally* DORCETA E. TAYLOR, TOXIC COMMUNITIES: ENVIRONMENTAL

A. Affected Communities: Who's Vulnerable

As is the disconcerting case with many sociolegal issues, pollution and its concomitant health-related ailments most often affect the world's poor and powerless.²⁵ Environmentally linked health impacts disproportionately hurt the most vulnerable populations, creating the implication that pollution-caused death and maladies are most prevalent in communities of color, Indigenous communities, and other marginalized communities.²⁶ When analyzing the root cause of this intersection between socioeconomic status and health impacts, it is well supported that improper pollution management and hazardous waste sitings are more likely to occur in marginalized communities,²⁷ leaving low-income people and people of color living in contaminated areas perpetually at risk for increased health disparities.²⁸ This disparate exposure to environmental health hazards is not unique to the present time; rather, it is an endemic issue and a persistent health challenge.²⁹

Furthermore, the United States has not confined its multigenerational hazardous exposures to marginalized populations within the continental United States.³⁰ Islanders in the South Pacific have borne an immense burden of weapons testing, chemical dumping, and war simulations resulting from decades upon decades of U.S. military

RACISM, INDUSTRIAL POLLUTION, AND RESIDENTIAL MOBILITY (2014); KRISTIN SHRADER-FRECHETTE, TAKING ACTION, SAVING LIVES: OUR DUTIES TO PROTECT ENVIRONMENTAL AND PUBLIC HEALTH (2007).

²⁵ See Landrigan et al., *supra* note 15, at 462.

²⁶ See *id.*; see also William A. Suk, *Invited Perspective: Integrating Data Reveals Benefits of Remediation for Children's Exposure to Hazardous Substances*, ENV'T HEALTH PERSPS., Mar. 2022, at 031301-1, 031301-1.

²⁷ See David Naguib Pellow & Robert J. Brulle, *Power, Justice, and the Environment: Toward Critical Environmental Justice Studies*, in POWER, JUSTICE, AND THE ENVIRONMENT: A CRITICAL APPRAISAL OF THE ENVIRONMENTAL JUSTICE MOVEMENT 2 (David Naguib Pellow & Robert J. Brulle eds., 2005); Robert D. Bullard, *Environmental Justice in the 21st Century: Race Still Matters*, 49 PHYLON 151, 160 (2001) (discussing zoning laws and how minority populations live within close proximity to toxic waste sites).

²⁸ See Crystal Stephens et al., *Disparities in Healthcare Utilization: Superfund Site vs. Neighboring Comparison Site*, INT'L. J. ENV'T RSCH. & PUB. HEALTH, Aug.-1 2022, at 1, 8; Jennifer Black et al., *Perfluoroalkyl and Polyfluoroalkyl Substances: Using Law and Policy to Address These Environmental Health Hazards in the United States*, 31 HEALTH MATRIX: J. L.-MED. 341, 345 (2021).

²⁹ See Joni Seager, *Creating a Culture of Destruction: Gender, Militarism, and the Environment*, in TOXIC STRUGGLES: THE THEORY AND PRACTICE OF ENVIRONMENTAL JUSTICE 61–62 (Richard Hofrichter ed., 1993).

³⁰ See *id.* at 63 (stating that the patterns and practices of environmental racism extend beyond national borders and have resulted in environmental contamination that will remain for tens of thousands of years in the Pacific Islands).

control.³¹ For instance, one-third of the island of Guam is controlled by the U.S. military.³² What makes this even more amazing is the fact that the U.S. military does not use or own this land; it merely controls it in case it is needed in the future.³³ The long-term military control and contamination of Guam and the Pacific Islands was without the consent of the Indigenous islanders (and sometimes without warning), including for example, the testing of most nuclear weapons systems currently deployed in Europe and the United States.³⁴ The negative environmental and public health consequences are incalculable.³⁵ Some Pacific Islands have been utterly destroyed, and others have been rendered uninhabitable for generations.³⁶ The environmental and health degradations mirror historical patterns of imperialism, colonialism, militarization, classism, and racism.³⁷

As is often the case, “[p]opulations excluded from the . . . circles of power disproportionately bear the [most deleterious effects] of militarized environmental destruction.”³⁸ On Guam, for example, the U.S. military has engaged in open detonation to destroy unserviceable or obsolete military munitions for decades.³⁹ This practice released hazardous contaminants directly into the air, soil, and water.⁴⁰ Pacific Islands like Guam offer a clear example of the enduring deficiencies in CERCLA relative to the effective management of pollution, mitigation of health risks, and critical consideration of certain populations. By the 1990s, the Department of Defense (DOD) had identified 202 potentially contaminated locations on

³¹ *See id.*

³² DOUG MACK, *THE NOT-QUITE STATES OF AMERICA: DISPATCHES FROM THE TERRITORIES AND OTHER FAR-FLUNG OUTPOSTS OF THE USA* 151 (2017).

³³ *See id.*

³⁴ Seager, *supra* note 29, at 63.

³⁵ *Id.* (contending that the results of the military activities in the South Pacific have been enormous, that the health consequences have been incalculable, and that these consequences would have never been allowed on the United States mainland or in Europe).

³⁶ *Id.*; *see also* Shannon Tiezzi, *How the U.S. Military Wound up Poisoning the Pacific*, *THE DIPLOMAT* (Nov. 4, 2020) <https://thediplomat.com/2020/11/how-the-us-military-wound-up-poisoning-the-pacific/> [<https://perma.cc/73J2-LSQG>].

³⁷ Seager, *supra* note 29.

³⁸ *Id.* at 62.

³⁹ *U.S. EPA and Guam EPA Express Grave Concerns over Open Detonation at Andersen AFB, Find Permit Renewal Application Deficient*, *EARTHJUSTICE* (Aug. 20, 2024), <https://earthjustice.org/press/2024/u-s-epa-and-guam-epa-express-grave-concerns-over-open-detonation-at-andersen-afb-find-permit-renewal-application-deficient/> [<https://perma.cc/ZL9B-ERWH>].

⁴⁰ *Id.*

Guam (an island approximately the size of the city of Chicago),⁴¹ including an estimated 155 contaminated sites on the U.S. bases on Guam, and forty-seven sites off base.⁴²

The DOD found that for years the Air Force and Navy had disposed of construction debris, aircraft components, ordnance, chemical wastes, pesticides, paints, paint thinners, and battery casings on the cliff lines and near the ocean on Guam.⁴³ Military wastes were flushed or dumped over cliffs, onto land, into the island water, or into the sea for decades.⁴⁴ As a result, a myriad of toxic compounds has been discovered throughout the island, including polychlorinated biphenyls (PCBs), the notorious Vietnam-era defoliant Agent Orange (and its progenitor, Agent Purple), the insecticide dichlorodiphenyltrichloroethane (DDT), trichloroethylene (TCE), lead, cadmium, and radioactive contaminants.⁴⁵ This unrestricted contamination of Guam is just one of the many examples of how vulnerable populations are exposed to hazardous chemicals.

B. The Hazardous Cycle: Vulnerability, Degradation, Disparities

Our natural environment—where we live, work, sleep, play, and socialize—is central to our health; it can act as a major benefit or a catastrophic detriment to our physical and mental well-being.⁴⁶ Consequently, it should go without saying that a clean environment is an essential right for everyone, including our most vulnerable populations.⁴⁷

When studying the health of populations and related health inequalities, the environment is a key factor. Extensive public health research considers various social determinants⁴⁸ of health when evaluating and studying health disparities. Social determinants of health refers to

⁴¹ U.S. GEN. ACCT. OFF., ENVIRONMENTAL CLEANUP: BETTER COMMUNICATION NEEDED FOR DEALING WITH FORMERLY USED DEFENSE SITES IN GUAM 7 (2002), <https://www.gao.gov/assets/gao-02-423.pdf> [<https://perma.cc/9E7F-YYSU>]; Amber Partida, 5 *Things You Likely Didn't Know About Guam*, PBS NEWS (Aug. 10, 2017, at 16:48 ET), <https://www.pbs.org/newshour/world/5-things-likely-didnt-know-guam/> [<https://perma.cc/7LUV-R8YN>].

⁴² JON MITCHELL, POISONING THE PACIFIC: THE US MILITARY'S SECRET DUMPING OF PLUTONIUM, CHEMICAL WEAPONS, AND AGENT ORANGE 183 (2020).

⁴³ U.S. GEN. ACCT. OFF., *supra* note 41, at 7.

⁴⁴ MITCHELL, *supra* note 42, at 183–84.

⁴⁵ *Id.* at 180–85.

⁴⁶ *Social Determinants of Health*, OFF. OF DISEASE PREVENTION & HEALTH PROMOTION, <https://odphp.health.gov/healthypeople/priority-areas/social-determinants-health> [<https://perma.cc/G2GS-SPSJ>] (last visited Nov. 20, 2025).

⁴⁷ See Stephens et al., *supra* note 28, at 7; Black et al., *supra* note 28, at 345.

⁴⁸ *Social Determinants of Health*, *supra* note 46.

conditions that affect health risks and outcomes, including exposure to environmental hazards.⁴⁹ Minority communities are often more vulnerable to additional health risks from environmental exposures.⁵⁰ When considering the effects of social determinants, research demonstrates that certain communities—often minority and lower income—are more likely to be impacted.⁵¹ The exposure to health disparities fostered by social determinants can lead to “adverse health outcomes, such as adverse pregnancy outcomes . . . , childhood cancers . . . , asthma hospitalizations and chronic respiratory symptoms, stroke mortality, [toxic poisoning, and] end-stage renal disease.”⁵²

The EPA has historically taken an active role in addressing environmental injustices by considering the link between social determinants of health and resulting health disparities. It has described environmental justice as the “just treatment and meaningful involvement of all people, regardless of income, race, color, national origin, Tribal affiliation, or disability, in agency decision-making and other Federal activities that affect human health and the environment.”⁵³ For the EPA, this goal would be achieved once everyone enjoys the same degree of environmental protection, equal access to the decision-making process, and a healthy environment in which to live, learn, and work.⁵⁴ Though a lofty goal, the EPA has consistently failed to fully consider environmental-justice-related impacts in the process of mitigating exposure to hazardous environmental risks; it has failed to address the marginalized communities most directly affected by proximity to hazardous sites.⁵⁵

⁴⁹ *Id.* (defining social determinants of health as “the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks”).

⁵⁰ *Id.*

⁵¹ Phil Brown, *Race, Class, and Environmental Health: A Review and Systematization of the Literature*, 69 ENV'T RSCH. 15, 20 (1995).

⁵² Jean D. Brender, Juliana A. Maantay & Jayajit Chakraborty, *Residential Proximity to Environmental Hazards and Adverse Health Outcomes*, 101(S1) AM. J. PUB. HEALTH S37, S50 (2011).

⁵³ *Environmental Justice*, EPA (Nov. 22, 2024), <https://web.archive.org/web/20241122000000/https://www.epa.gov/environmentaljustice/> [https://perma.cc/JQ3B-B2FF].

⁵⁴ *Id.*

⁵⁵ See Lyrica S. Stelle & Sam C. Byrne, *The Injustice of Risk Avoidance: The Limitations of Fish Consumption Restrictions as Institutional Controls for Superfund Sites*, 39 REVS. ON ENV'T HEALTH 137, 139 (2024) (contending that CERCLA does not appropriately consider environmental justice and therefore fails to consider the full impact of hazardous sites upon a community); see also David M. Konisky, *Introduction* to FAILED PROMISES: EVALUATING THE FEDERAL GOVERNMENT'S RESPONSE TO ENVIRONMENTAL JUSTICE 10–11 (David M. Konisky ed., 2015) (arguing that EPA is slower to respond to contaminated properties within lower-

In the early 1980s, “environmental justice became widely recognized, as minority and low-income [communities] fought to keep environmental hazards out of their [neighborhoods]”⁵⁶ Researchers began to document environmental injustices across the United States and found that minority and low-income communities were frequently located near environmental hazards.⁵⁷ In the majority of cases, race was, and still is, a more significant factor than economic class.⁵⁸ Minority communities were, and continue to be, typically the most overexposed to environmental hazards.⁵⁹ Nevertheless, reducing environmental risks is very complex despite the clear evidence that lessening contaminated environmental exposures is critical for public health.⁶⁰

Due to the imprecise timing of health consequences surfacing and harmful social and environmental feedback loops, these exposures remain challenging to isolate; only costly individual periodic testing can help determine the extent of harm.⁶¹ For example, exposure to harmful chemicals from the air or water can take years to build up to toxic levels and become detectable within the human body (i.e., the process of bioaccumulation).⁶² People living within the affected communities may not grasp the fact that they have been living within an ever-changing toxic soup⁶³ of chemicals for decades, creating a replicating cycle of economic,

income communities and communities of color, and it fails to take into account the cumulative health risks communities face when they host multiple hazardous facilities).

⁵⁶ Sandra George O’Neil, *Superfund: Evaluating the Impact of Executive Order 12898*, 115 ENV’T HEALTH PERSPS. 1087, 1087 (2007); accord TAYLOR, *supra* note 24, at 6 (arguing that minorities grew increasingly aware and concerned over the implications of living in close proximity to environmental hazards).

⁵⁷ O’Neil, *supra* note 56, at 1087.

⁵⁸ Brown, *supra* note 51, at 16.

⁵⁹ *Id.*

⁶⁰ See Stephens et al., *supra* note 28, at 3; see also Jane A. Entwistle et al., *Metalliferous Mine Dust: Human Health Impacts and the Potential Determinants of Disease in Mining Communities*, 5 CURRENT POLLUTION REPS. 67, 79 (2019).

⁶¹ See SHRADER-FRECHETTE, *supra* note 24, at 79–81.

⁶² Ioannis Manisalidis et al., *Environmental and Health Impacts of Air Pollution: A Review*, FRONTIERS PUB. HEALTH, Feb. 2020, at 1, 7–8; *Vocabulary Catalog*, EPA (Jan. 5, 2012), https://sor.epa.gov/sor_internet/registry/termreg/searchandretrieve/glossariesandkeywordlists/search.do?details=&glossaryName=Eco%20Risk%20Assessment%20Glossary [<https://perma.cc/5VJ3-2T24>] (defining “bioaccumulation”).

⁶³ *Browning-Ferris Indus. of Ill., Inc. v. Ter Maat*, 13 F. Supp. 2d 756, 777 (N.D. Ill. 1990) (describing toxic soup as the intermixing of chemicals from various locations that work their way into the soil and groundwater, where, like “grandma’s special soup,” the final product results in a “unique blend of ingredients, some known and some unknown”).

environmental, and health inequities.⁶⁴ People living within the affected communities fail to realize they are living in an area contaminated with hazardous chemicals whose ubiquity and multiplicity make it difficult to correlate with community illnesses.⁶⁵ The community may think (or know) something is making them sick or terminally ill, but they cannot identify the exact cause or causes. For example, cancer related to hazardous chemicals within a community can lie dormant for ten to forty years after an initial exposure.⁶⁶ Moreover, constant exposure and bioaccumulation become “invisible bullets,” riddling the affected community members with cancer and other illnesses.⁶⁷

In addition to being difficult to detect (even over time), hazardous chemicals add to the cumulative health impacts within these communities and create generational economic and health inequities.⁶⁸ They add one more load to the aggregate burdens that increase social vulnerability, pre-existing health conditions, diseases, and environmental degradation.⁶⁹ Long-term environmental degradation of the affected communities can also create “sacrifice zones,” vast zones of economic disinvestment that increase multigenerational health inequities.⁷⁰ Hence, the question becomes, how has this been allowed to continue in certain communities for decades? The answer is that a continuing cycle of environmental degradation requires those in power to overlook the negative impacts that

⁶⁴ See SHRADER-FRECHETTE, *supra* note 24, at 80 (arguing that people may not realize they are at risk from unseen hazards like PCBs, dioxins, or ionizing radiation until it is too late); see also Mark B. Russi, Jonathan B. Borak & Mark R. Cullen, *An Examination of Cancer Epidemiology Studies Among Populations Living Close to Toxic Waste Sites*, ENV'T HEALTH 4–5 (June 26, 2008), <https://ehjournal.biomedcentral.com/articles/10.1186/1476-069X-7-32> [<https://perma.cc/8WMG-D4YD>] (reviewing a number of studies to identify how to classify cancer mortality clusters that appear in close proximity to toxic waste sites; noting that there are a number of limitations to making definitive conclusions, but valid hypotheses have been developed to offer future studies in this area).

⁶⁵ SHRADER-FRECHETTE, *supra* note 24, at 80.

⁶⁶ *Id.*

⁶⁷ *See id.*

⁶⁸ *See generally id.* at 3–80.

⁶⁹ *See* CTRS. FOR DISEASE CONTROL & PREVENTION, AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY & GEOSPATIAL RSCH., ANALYSIS, AND SERVS. PROGRAM (GRASP), TECHNICAL DOCUMENTATION FOR THE 2024 ENVIRONMENTAL JUSTICE INDEX 8 (2024), https://atsdr.cdc.gov/place-health/media/pdfs/2024/10/EJI_2024_Technical_Documentation.pdf [<https://perma.cc/QM8B-48VD>] (explaining that the total harms resulting from a combination of environmental burdens can arise from long-term exposures to environmental pollution and community stressors).

⁷⁰ *See id.* (stating that degraded environmental conditions within a community causes disinvestment which leads to further environmental degradation, perpetuating economic inequities).

the environmental degradation has on future generations.⁷¹ It means that those with the ability to alleviate the problem simply refuse to acknowledge the existence of the problem.

There is a direct causal link that exists between pollution, disenfranchisement, and socioeconomics.⁷² Research reveals that exposure to toxins and pollution is disparate.⁷³ Racial minorities, marginalized groups (including many rural groups), Indigenous people, and those with lower income experience higher exposure to both pollution and the associated health risks.⁷⁴ For example, a review of waste-adjacent neighborhoods reveals that race continues to be associated with the location of U.S. hazardous waste sites, and the patterns of the placements of the sites reflect the continuing intersectionality⁷⁵ between race and class oppression.⁷⁶ The notion of intersectional environmentalism contends that the systematic degradation of the environment is often interlinked with the oppression of people.⁷⁷

⁷¹ LEAH THOMAS, *THE INTERSECTIONAL ENVIRONMENTALIST: HOW TO DISMANTLE SYSTEMS OF OPPRESSION TO PROTECT PEOPLE + PLANET* 40 (2022) (contending through intersectional environmentalism that the degradation of the planet involves the same systems that oppress people).

⁷² See GORDON WALKER, *ENVIRONMENTAL JUSTICE: CONCEPTS, EVIDENCE, AND POLITICS* 60 (2012) (asserting that environmental degradation is social and political and shaped by economic forces and defining “environmental deprivation” as a comprehensive index of factors directly linked to human health, including air quality, UVB index, and proximity to greenspaces); Martin McCrory et al., *Watered Down Voices, Watered Down Justice: A Demand for Polycentricism, Demosprudence, and Praxis in WOTUS Regulatory Reform*, 34 *GEO. ENV’T L. REV.* 417, 448 (2022) [hereinafter McCrory et al., *Watered Down*].

⁷³ See Brown, *supra* note 51, at 16; Stephens et al., *supra* note 28, at 6.

⁷⁴ See Anjum Hajat, Charlene Hsia & Marie S. O’Neill, *Socioeconomic Disparities and Air Pollution Exposure: A Global Review*, 2 *CURRENT ENV’T HEALTH REPS.* 440, 447 (2015); Christopher W. Tessum et al., *Inequity in Consumption of Goods and Services Adds to Racial–Ethnic Disparities in Air Pollution Exposure*, 116 *PNAS* 6001, 6003 (2019); Merlin Chowkwanyun, *Environmental Justice: Where It Has Been, and Where It Might Be Going*, 44 *ANN. REV. PUB. HEALTH* 93, 100 (2023) (finding that nonwhite populations and low-income populations generally have the most exposure to pollution, and will be more likely exposed to hazardous emissions or located in close proximity to a hazardous site).

⁷⁵ See INGRID R.G. WALDRON, *THERE’S SOMETHING IN THE WATER: ENVIRONMENTAL RACISM IN INDIGENOUS AND BLACK COMMUNITIES* 5–6 (2018) (describing intersectionality as a variety of determinants that work to compromise a community’s health).

⁷⁶ See Michael Mascarenhas, Ryken Grattet & Kathleen Mege, *Toxic Waste and Race in Twenty-First Century America: Neighborhood Poverty and Racial Composition in the Siting of Hazardous Waste Facilities*, 12 *ENV’T & SOC’Y* 108, 109 (2021). See generally Spencer Banzhaf, Lala Ma & Christopher Timmins, *Environmental Justice: The Economics of Race, Place, and Pollution*, 33 *J. ECON. PERSPS.* 185 (2019) (detailing the history of the environmental justice movement and the distribution of waste sites, and integrating models used to describe the relationship between race, pollution, and regulation).

⁷⁷ THOMAS, *supra* note 71, at 40.

After decades of multigenerational environmental oppression, many affected communities often become quiescent.⁷⁸ Quiescence is the feeling among affected communities that they have no power to address the subordination and inequity they endure; therefore, they accept their lot in silence.⁷⁹ Their behavior becomes almost intrinsic. Decades of subordination and dehumanization encourage a gradual transformation into a population that quietly accepts the yawning wasteland that is its polluted community.

The Executive Director of the Indigenous Environmental Network explains that colonialism and persistent colonial attitudes have been particularly present and effective in Indigenous communities, leaving people feeling disempowered; they are made to feel that they no longer have the power to make their own decisions.⁸⁰ The continual exercise of hegemonic hyperpower and economic oppression can create a continuing cycle of repression and disenfranchisement.⁸¹ This is because the power of the government ultimately determines who matters and who does not; i.e., through necropolitics, governments can create disposable people, deciding who lives well and who dies in contamination.⁸²

The resulting decision helps create an easier pathway for the placement of hazardous waste sites that contribute to a pernicious mixture of health-compromising determinants.⁸³ In territories like Guam (an island primarily composed of Indigenous Pacific Islanders), colonialism, quiescence, and multigenerational disenfranchisement have resulted in the siting and reckless abandonment of the massive hazardous sites.⁸⁴ The

⁷⁸ See LUKE W. COLE & SHIELA R. FOSTER, FROM THE GROUND UP: ENVIRONMENTAL RACISM AND THE RISE OF THE ENVIRONMENTAL JUSTICE MOVEMENT 153 (2000) (“A community may come to be quiescent when its residents repeatedly experience individual or group oppressions, or lose local struggles . . .”).

⁷⁹ *Id.*

⁸⁰ *Id.* (stating that Indigenous communities reach a point where they feel they can no longer make their own decisions, surrendering that power to government agencies).

⁸¹ See McCrory et al., *Watered Down*, *supra* note 72, at 465 (contending that hegemonic power, necropolitics, and the cycle of repression force disposable populations to endure the horrors of living in contaminated areas); see also RACHEL CARSON, SILENT SPRING 12(1–3) (First Mariner ed. 1962, 2002) (stating that people fall into a mesmerized state that makes them accept as inevitable that which is detrimental, as if they have lost their will or vision).

⁸² See ACHILLE MBEMBE, NECROPOLITICS 80 (Steven Corcoran trans., 2019).

⁸³ See WALDRON, *supra* note 75, at 6 (describing determinants that work together to compromise community health). See generally McCrory et al., *Watered Down*, *supra* note 72, at 465 (describing the creation of an environmental caste system and how direct and meaningful access to environmental decision-making can help alleviate environmental harms).

⁸⁴ See generally COLE & FOSTER, *supra* note 78, at 153 (discussing the cycle of quiescence and how it historically draws industry to these powerless communities).

environmental impacts and injustices associated with these sites require CERCLA intervention.⁸⁵

C. How Communities Are Affected by CERCLA

CERCLA should be treated as a “distinctly different analysis within environmental justice.”⁸⁶ Superfund actions are different from other environmental actions in that they are part of an environmental cleanup program that offers extensive federal resources (a Superfund).⁸⁷ Having a site placed on the CERCLA list symbolizes that the site poses a serious environmental risk and that the federal government will provide funds and other resources to assist in the cleanup.⁸⁸ The governmental list itself symbolizes an economic–environmental benefit to communities.⁸⁹

Unfortunately, the groups most often affected by hazardous waste are most often unrepresented in the decisions.⁹⁰ The clean-up calculus often results in a regulatory paradigm with predictable outcomes: those who are able to direct or navigate the regulatory system (i.e., those with more power) are more likely to benefit from it⁹¹ while others—the poor people, Indigenous people, rural people, and people of color—take a deferential role in the decision-making process.⁹² Consequently, they are

⁸⁵ See generally Mascarenhas et al., *supra* note 76; Banzhaf et al., *supra* note 76, (detailing the history of the environmental justice movement and the distribution of waste sites, and integrating models used to describe the relationship between race, pollution, and regulation).

⁸⁶ O’Neil, *supra* note 56, at 1088.

⁸⁷ See EPA, THIS IS SUPERFUND: A COMMUNITY GUIDE TO EPA’S SUPERFUND PROGRAM 3 (2011) [hereinafter THIS IS SUPERFUND], <https://semspub.epa.gov/work/HQ/175197.pdf>, [https://perma.cc/K9L2-QXQ8] (“The Superfund program is administered by EPA in cooperation with state and tribal governments.”).

⁸⁸ See *Superfund Site Assessment Home: About Superfund Site Assessment*, EPA (Sep. 22, 2025), <https://www.epa.gov/superfund/superfund-site-assessment-home/> [https://perma.cc/AM59-TMKH].

⁸⁹ O’Neil, *supra* note 56, at 1088.

⁹⁰ See McCrory et al., *Watered Down*, *supra* note 72, at 439 (contending that those making “decisions that have multigenerational effects on polluted communities” have often never even “spoken to a single person who has been . . . affected by their regulatory decisions”).

⁹¹ See generally Barbara L. Bezdek, *Citizen Engagement in the Shrinking City: Toward Development Justice in an Era of Growing Inequality*, 33 ST. LOUIS U. PUB. L. REV. 3 (2013) (describing the power differential associated with community engagement); see also McCrory et al., *Watered Down*, *supra* note 72, at 439 (arguing that democracy-deficient legal paradigms benefit elites while leaving the costs to be borne by marginalized communities).

⁹² See McCrory et al., *Watered Down*, *supra* note 72, at 439 (“[T]he government often provides the richest engagement to the elites, while the interests of the poor and people of color take a subservient role in relation to the decisions that directly affect their health and environment.”).

more likely to be quiet and subordinated relative to hazardous waste decisions, including cleanup decisions.⁹³

Historical analysis establishes a clear disparity in both hazardous sitings and cleanups.⁹⁴ From initial site designation to final remediation, cleanups (or the lack thereof) often function as simply another source of systemic procedural inequity. The existing resources are not distributed equally and cleaning up hazardous waste is incredibly costly.⁹⁵ Again, certain groups are subordinated in the decision-making process; yet, they are disproportionately affected by the outcomes.⁹⁶

In addition to the unequal representation and participation in the remedial process, the prioritization of site selection itself reflects an ingrained inequity within CERCLA. The geographic distribution of Superfund sites suggests that those who most often have benefited from the program are wealthier, possess higher levels of education, and experience lower rates of poverty.⁹⁷ Additional research explores the process through which hazardous waste sites are designated as Superfund sites and finds that sites located in underrepresented areas are less likely to be listed on the National Priorities List (NPL), in turn delaying or even eliminating the cleanup process.⁹⁸

One study found that abandoned hazardous waste sites located in minority communities took twenty percent longer to be placed on the NPL

⁹³ See *id.*

⁹⁴ See JULIAN AGYEMAN, SUSTAINABLE COMMUNITIES AND THE CHALLENGE OF ENVIRONMENTAL JUSTICE 16 (2005) (arguing that early observations demonstrated that the geographical distribution of environmental risk and inequity is uneven, and defining “environmental equity” as a term used to describe the disproportional effects environmental degradation has on people and places); Robert D. Bullard et al., *Toxic Wastes and Race at Twenty: Why Race Still Matters After All of These Years*, 38 ENV'T L. 371, 374–77 (2008) (discussing the roots of environmental justice and the history of marginalized communities and methods to improve their quality of life) See generally Banzhaf et al., *supra* note 76, (recounting the history of environmental justice and the distribution of wastes sites, utilizing models describing the relationship between race, pollution, and regulation).

⁹⁵ See *Superfund Remedial Annual Accomplishments Metrics: Fiscal Year 2024 Report*, EPA (Aug. 1, 2025), <https://www.epa.gov/superfund/superfund-remedial-annual-accomplishments-metrics> [<https://perma.cc/B9LV-BGH6>] (reporting that the EPA spent \$5.9 billion in 2024 on Superfund cleanup sites).

⁹⁶ O’Neil, *supra* note 56, at 1088; see also McCrory et al., *Watered Down*, *supra* note 72, at 439.

⁹⁷ See Hird, *supra* note 10 at 332–33.

⁹⁸ Douglas L. Anderton, John Michael Oakes & Karla L. Egan, *Environmental Equity in Superfund: Demographics of the Discovery and Prioritization of Abandoned Toxic Sites*, 21 EVALUATION REV. 3, 15 (1997).

than those in white communities.⁹⁹ This study also observed that the government was slower to address hazards in minority areas, and when they did, they were more inclined to adopt milder remedies than those proposed by scientific experts in majority areas.¹⁰⁰ This research highlights the social, economic, and power divides involved in hazardous waste site selection, cleanup decisions, and governmental action (or inaction). If money talks, social status and power amplify its volume.

Guam is a perfect example of the notion of racial capitalism—the idea that governments often engage in or permit the exploitation of marginalized people and classes to facilitate the accumulation of wealth and power.¹⁰¹ “The United States Congress . . . holds plenary power over [Guam] and can void laws passed by the Gaum Legislature at any time.”¹⁰² In 1972, Guam was finally allowed a delegate to the U.S. House of Representatives, but that delegate can only vote in committee.¹⁰³ The delegate from Guam is not allowed to vote on the House floor, and Guam has no Senators.¹⁰⁴ A close look at Guam demonstrates a perceived notion of expendability of its Indigenous population with the imposition of martial control over its land.¹⁰⁵

Many environmental problems are directly related to the convergence of military, governmental, and business interests.¹⁰⁶ Serious hazardous waste contamination began on the island during World War II; however, Guam’s Indigenous Chamorro¹⁰⁷ population was still fighting

⁹⁹ Marianne Lavelle & Marcia Coyle, *Unequal Protection: The Racial Divide in Environmental Law: A Special Investigation*, NAT’L L.J., Sep. 21, 1992, at S2.

¹⁰⁰ *Id.*

¹⁰¹ See WALDRON, *supra* note 75, at 45 (stating that racialized capitalism relies upon the possession of Indigenous land, the expendability of Indigenous people, and the value of gendered and racialized labor).

¹⁰² BRANDON BELL, HISTORY AND CULTURE OF GUAM: THE BEGINNING OF THE CHAMORRO RACE, THE SETTLEMENT OF AMERICAN, THE GOVERNANCE, PEOPLE AND TRADITION 98 (2025).

¹⁰³ *Id.* at 98–99.

¹⁰⁴ *Id.* at 99.

¹⁰⁵ See WALDRON, *supra* note 75, at 45 (stating that racial capitalism relies upon the possession of Indigenous land and the perceived expendability of the people, and arguing that this perception reinforces social and economic inequalities).

¹⁰⁶ Seager, *supra* note 29, at 61–62 (“The collusion of military, governmental, and industrial interests creates an impenetrable knot of elite power.”).

¹⁰⁷ In this article, the terms “Chamoru” and “Chamorro” are used with the utmost respect to refer to the Indigenous people of Guam and the broader Mariana Islands. Please note that the spelling of these terms is a subject to ongoing discussion and may vary depending on the source or community preference. See *Chamorro vs. Chamoru*, GUAMPEDIA, <https://www.guampedia.com/chamorro-vs-chamoru/> [https://perma.cc/JT2S-JEJB] (last visited

with the United States for cleanup at the Ordot site in 2021.¹⁰⁸ For decades, the United States has known of the severe contamination on Guam and other U.S. Pacific Islands, yet it has been slow to rectify the situation.¹⁰⁹ After World War II, the United States continued using Guam as a hazardous waste dump; it shipped thousands of barrels of Agent Orange and its predecessor, Agent Purple, to Guam for storage and use as a defoliant.¹¹⁰ During the Navy's time at Guam, officials detected TCE, a chemical solvent and degreaser that is highly carcinogenic.¹¹¹ The levels recorded are six times higher than EPA guidelines.¹¹² Citing almost fifty hazardous contaminants of concern, the EPA finally listed Guam on CERCLA's NPL.¹¹³ Having a site listed on the NPL and obtaining a fast cleanup are significant events, particularly when viewing these events in terms of human health.¹¹⁴

In general, the health benefits of these actions are substantial.¹¹⁵ Superfund cleanups can reduce the incidence of congenital anomalies in newborn babies by up to twenty-five percent.¹¹⁶ Effective and expeditious CERCLA cleanups can positively affect older children's health outcomes as well. In a robust study evaluating the effect of the EPA's Superfund cleanup program on children's lead exposure, researchers linked two decades of blood lead level (BLL) measurements from children in six states with data on Superfund sites and other lead risk factors.¹¹⁷ Superfund cleanups lowered the risk of elevated BLL for children living within two kilometers of lead-contaminated sites by thirteen to twenty-six percent compared to what rates would have been without cleanup, underscoring

Nov. 20, 2025). The term "Chamoru" is used by some members of the community to reflect the Indigenous pronunciation, while "Chamorro" is a Spanish-based spelling historically used. *See id.* This Article seeks to respect the diversity of opinions and terminologies surrounding the identity of the Indigenous people of Guam. The reader is strongly encouraged to consider the historical and cultural contexts in which these terms are applied.

¹⁰⁸ *See generally* *Guam v. United States*, 141 S. Ct. 1608 (2021).

¹⁰⁹ MITCHELL, *supra* note 42, at 178–86.

¹¹⁰ *Id.* at 181–82.

¹¹¹ *Id.* at 183.

¹¹² *Id.*

¹¹³ *Id.* at 183–84.

¹¹⁴ *See generally* Martin Burda & Matthew Harding, *Environmental Justice: Evidence from Superfund Cleanup Durations*, 107 J. ECON. BEHAV. & ORG. 380 (2014).

¹¹⁵ *See* Janet Currie, Michael Greenstone & Enrico Moretti, *Superfund Cleanups and Infant Health*, AM. ECON. REV., May 2011, at 435, 439.

¹¹⁶ *Id.*

¹¹⁷ Heather Klemick, Henry Mason & Karen Sullivan, *Superfund Cleanups and Children's Lead Exposure*, J. ENV'T ECON. MGMT., March 2020, at 1, 2.

the potential health benefits from the Superfund program.¹¹⁸ Superfund cleanups can reduce or prevent other hazardous waste health impacts like cancers, leukemia, congenital anomalies, infant mortality, and preterm births.¹¹⁹ When faced with the serious health risks associated with widespread hazardous waste contamination, Congress is eventually forced to act; nevertheless, its knee-jerk legislative actions (like CERCLA) are often confusing and indecisive.¹²⁰

II. SILENT SPRING TO SUPERFUND: A BRIEF ENVIRONMENTAL HISTORY

The complexity and necessity of identifying hazardous waste risks have been well-documented since the start of U.S. environmental management. In order to best understand why CERCLA was established and its importance to communities, a brief background on the development of regulatory environmental management is essential. This brief history will lay a foundation not only for the importance of ensuring the effectiveness of CERCLA, but also for its interactions with other policies within the regulatory sphere.

In 1962, Rachel Carson published *Silent Spring*, depicting the threats to the environment and delicate ecosystems caused by the use of hazardous chemicals.¹²¹ In 1968, Garret Hardin published *The Tragedy of the Commons*, positing that individuals acting in their own self-interest can overuse, overconsume, and deplete shared resources, making the resources eventually unavailable to all.¹²² The two works helped bring attention to the growing threat in relation to the world's ecology. In addition, television helped lend credence to the warning given by Carson, Hardin, and others.

¹¹⁸ *Id.* (stating that prior studies of Superfund have focused on property value impacts).

¹¹⁹ *The Superfund Program: Protecting Healthy Communities, Advancing Environmental Protection*, EPA (Feb. 14, 2025), https://www.epa.gov/superfund/superfund-program-protecting-healthy-communities-advancing-environmental-protection#human_anchor/ [<https://perma.cc/KB94-6E7M>]. See generally Lucia Fazzo et al., *The Health Impact of Hazardous Waste Landfills and Illegal Dumps Contaminated Sites: An Epidemiological Study at Ecological Level in Italian Region*, 11 FRONTIERS PUB. HEALTH, Feb. 2023, at 1; SHRADER-FRECHETTE, *supra* note 24, at 3–18.

¹²⁰ See JAMES SALZMAN & BARTON H. THOMPSON, JR., ENVIRONMENTAL LAW AND POLICY 211 (5th ed. 2019) (“Faced with serious health concerns on the one side and important economic interests on the other, Congress often has proven unable or unwilling to resolve the competing interests and left the ultimate decision to the regulatory agencies and courts.”).

¹²¹ See generally CARSON, *supra* note 81 (discussing the toxic effects of DDT on the ecosystem).

¹²² See generally Garrett Hardin, *The Tragedy of the Commons*, 162 SCIENCE 1243 (1968).

The burning of the Cuyahoga River,¹²³ the massive oil spill off the Santa Barbara Coast,¹²⁴ the Farmington Mine explosion and accompanying deaths,¹²⁵ the poisoning of the Adirondack lakes,¹²⁶ the devastation of sugar maples in New England by acid rain,¹²⁷ the New York smog inversion that killed over 200 people,¹²⁸ and other televised disasters helped create a public call for a new national environmental regulatory strategy.¹²⁹ These nationally televised ecological disasters demonstrated to an unwary nation the laissez-faire attitude the government had toward the poisoning of our waters, smog (smoke and fog),¹³⁰ and the dumping of wastes upon our lands.¹³¹ This newfound awareness helped create a public calling for new national environmental regulatory policies and statutes.

¹²³ Nathaniel Sheppard Jr., *Cleveland Calls River Cleanup Symbol of City Gains*, N.Y. TIMES, June 23, 1979, at 6 (discussing the river burning and the city's progress on cleaning up the contamination).

¹²⁴ Lee Dye, *Great Oil Spill: A Compromise by All Sides*, L.A. TIMES, July 14, 1969, at 16 (reporting on how Santa Barbara oil spill led conservationists to calls for a cessation on offshore drilling).

¹²⁵ Ken Ward Jr., *Lawsuit Alleges Cover-Up After 1968 Farming No. 9 Mine Disaster*, CHARLESTON GAZETTE-MAIL (Nov. 6, 2014), https://www.wvgazette.com/news/lawsuit-alleges-cover-up-after-1968-farmington-no-9-mine-disaster/article_7c414ce5-d80a-5908-b23a-b39908d3dbf3.html [https://perma.cc/NRF9-9HL5].

¹²⁶ See generally ADIRONDACK COUNCIL, ADIRONDACK WATERS: RESOURCE AT RISK (2008), https://archive.adirondackcouncil.org/vs-uploads/special_reports_archive/1341942164_Adirondack_Waters_Resource_at_Risk.pdf [https://perma.cc/M5H7-HMFB] (discussing the history of environmental threats to the Adirondack lakes).

¹²⁷ *Acid Rain: Scourge of the Past or Trend of the Present?*, U.S. NAT'L SCI. FOUND. (July 25, 2012), <https://www.nsf.gov/news/acid-rain-scourge-past-or-trend-present> [https://perma.cc/NXL7-Y4DD] (discussing the history of acid rain in the United States).

¹²⁸ Jim Dwyer, *Remembering a City Where Smog Could Kill*, N.Y. TIMES (Feb. 28, 2017), <https://www.nytimes.com/2017/02/28/nyregion/new-york-city-smog.html> [https://perma.cc/X5ZU-9PDB].

¹²⁹ See Richard J. Lazarus, *The Greening of America and the Graying of United States Environmental Law: Reflections on Environmental Law's First Three Decades in the United States*, 20 VA. ENV'T L.J. 75, 79–80 (2001).

¹³⁰ See Phil Wisman, *EPA History (1970-1985)*, EPA (Nov. 1985), <https://www.epa.gov/archive/epa/aboutepa/epa-history-1970-1985.html> [https://perma.cc/W8UK-6CFV]; see also *Smog*, BRITANNICA (Oct. 26, 2025), <https://www.britannica.com/science/smog> [https://perma.cc/XWL9-FMQA] (noting that the term smog was probably first used by Dr. Des Voeux in the early 1900s to describe the smoke and fog conditions that led to poor respiratory health in England, which later came to include photochemical air pollutants); John Dreyfuss, *The High Cost of Smog: \$336 Million a Year*, L.A. TIMES, Jan. 6, 1972, at 33 (discussing the financial cost of smog in Los Angeles Basin).

¹³¹ See Scott J. Shackelford et al., *Cyber Silent Spring: Levering ESG+T Frameworks and Trustmarks to Better Inform Investors and Consumers About the Sustainability, Cybersecurity, and Privacy of Internet-Connected Devices*, 25 U. PA. J. BUS. L. 505, 512–13 (2023) (arguing

In response to an increased public demand for environmental regulation, President Nixon signed the National Environmental Policy Act (NEPA).¹³² The law came into effect on January 1, 1970, seeking to require consideration of environmental factors prior to federal actions;¹³³ yet NEPA is not a regulatory statute. It does not regulate or sanction polluters' behavior; rather, it was created to form an extremely broad set of national policies to protect the national environment.¹³⁴ NEPA established the following as the national policy:

[T]o use all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans.¹³⁵

For the next decade, Congress enacted a series of regulatory statutes to effectuate the new national policy advanced through NEPA. NEPA and the statutes following it were all a reflection of the congressional response to the public awareness and outcry associated with well-publicized environmental disasters.¹³⁶ The Clean Air Act (CAA) was created in 1970 to regulate runaway air pollution from major manufacturing and the rapid increase in automobile use in major metropolitan areas.¹³⁷ The Clean

that the laissez-faire attitude of the federal government was reflected in the fact that most environmental enforcement was left to the states, leading to numerous ecological disasters).

¹³² *Welcome*, NEPA.GOV, <https://ceq.doe.gov> [<https://perma.cc/EZK7-7KB8>] (last visited Nov. 20, 2025) (describing the history and function of NEPA as explained by the President's Council on Environmental Quality).

¹³³ *Id.*

¹³⁴ *See generally The National Environmental Policy Act of 1969*, U.S. DEP'T OF ENERGY (July 4, 2025), <https://www.energy.gov/nepa/downloads/national-environmental-policy-act-1969/> [<https://perma.cc/BTQ8-N4WW>] (describing NEPA's purpose in setting policy).

¹³⁵ 42 U.S.C. § 4331(a).

¹³⁶ *See* Brigham Daniels, Andrew P. Follett & James Salzman, *Reconsidering NEPA*, 96 IND. L.J. 865, 878–79 (2021); *supra* notes 123–29 and accompanying text (documenting a sample of well-publicized environmental disasters that spurred public outcry and congressional action); *see also History of the Resource Conservation and Recovery Act*, EPA (Feb. 11, 2025), <https://www.epa.gov/rcra/history-resource-conservation-and-recovery-act-rera#history> [<https://perma.cc/4T7E-TD8L>] (describing the purposes of RCRA and its predecessor the Solid Waste Management Act of 1965).

¹³⁷ Martin A. McCrory & Eric L. Richards, *Clearing the Air: The Clean Air Act, GATT, and the WTO's Reformulated Gasoline Decision*, 17 UCLA J. ENV'T L. & POL'Y 1, 4–5 (1998) (describing the history and problems leading to federal air regulation from the 1950s to the 1970s). *See generally* Arnold W. Reitze, Jr., *A Century of Air Pollution Control Law: What's Worked; What's Failed; What Might Work*, 21 ENV'T L. 1549, 1585–93 (1991) (detailing the

Water Act (CWA) was created in 1972 as a reaction to the increasing concern over significant water pollution problems in the United States, including massive fish kills, rampant bacterial contaminations, and the failure of the previous federal Water Pollution Control Act to protect the nation's waterways.¹³⁸ The Resource Conservation and Recovery Act (RCRA) was created in 1976 to address the unchecked increase in problems associated with municipal and industrial waste¹³⁹ by regulating the generation, treatment, storage, transportation, and disposal of hazardous waste.¹⁴⁰

However, the RCRA regulated only the activities of ongoing businesses; it did not focus on sites containing hazardous materials that were deposited and hidden for decades before its enactment. The public became increasingly aware of these sites. For example, Love Canal in New York, (hazardous conditions caused relocation of hundreds of residents), the Valley of the Drums in Bullitt County, Kentucky (uncontrolled waste caused by the leaking of thousands of barrels of hazardous substances from thousands of dumped barrels),¹⁴¹ Times Beach in Missouri (hazardous chemical sprayed on roads led to evacuation of the entire town),¹⁴² the Lipari Landfill in New Jersey (recognized as the worst hazardous waste site in the nation),¹⁴³ and the Stringfellow Acid Pits in California (containing millions of gallons of hazardous wastes transported and

history of the Clean Air Act); Gladwin Hill, *Nation Is Losing War on Smog, Gardner Warns Pollution Parley*, N.Y. TIMES, Dec. 13, 1966, at 24.

¹³⁸ See *Clean Water Act Becomes Law*, HISTORY (Jan. 31, 2025), <https://www.history.com/this-day-in-history/clean-water-act-becomes-law/> [<https://perma.cc/S99Z-5B7Y>] (stating the 1960s were marked with “horrific revelations” about water pollution in the United States). See generally William L. Andreen, *Beyond Words of Exhortation: The Congressional Prescription for Vigorous Federal Enforcement of the Clean Water Act*, 55 GEO. WASH. L. REV. 202 (1987) (giving an historical overview of the Clean Water Act).

¹³⁹ See Resource Conservation and Recovery Act, 42 U.S.C. § 6901(a).

¹⁴⁰ *Resource Conservation and Recovery Act (RCRA) Overview*, EPA (Sep. 5, 2025), <https://www.epa.gov/rcra/resource-conservation-and-recovery-act-rcra-overview/> [<https://perma.cc/H5XV-ELFH>].

¹⁴¹ *Valley of the Drums*, BULLITT CNTY. HIST. MUSEUM (Sep. 12, 2024), <https://bullittcountyhistory.org/bchistory/valleydrum.html> [<https://perma.cc/XTU2-GQUL>].

¹⁴² *A Town, a Flood, and Superfund: Looking Back at the Times Beach Disaster Nearly 40 Years Later*, EPA (Sep. 28, 2025), <https://www.epa.gov/mo/town-flood-and-superfund-looking-back-times-beach-disaster-nearly-40-years-later> [<https://perma.cc/CR98-HJXX>].

¹⁴³ See *Lipari Landfill Mantua Township, NJ: Cleanup Activities*, EPA, <https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.Cleanup&id=0200557#bkgroundnd/> [<https://perma.cc/88SS-QVXY>] (describing the background and current state of the Lipari Landfill); see also Donald Janson, *E.P.A. Starts to Clean Up Worst Toxic Dump in U.S.*, N.Y. TIMES, Sep. 3, 1983, at 25.

deposited from many companies around the United States)¹⁴⁴ all became part of the national media stream and American environmental history.¹⁴⁵

Around this time, the EPA estimated that up to 50,000 hazardous sites existed in America.¹⁴⁶ As a result of the discovery and recognition of long-term contaminated sites like these, CERCLA was enacted.¹⁴⁷ By 2025, the EPA estimated that there were still over 1,300 active CERCLA sites in the United States.¹⁴⁸ Six of these sites are located within the U.S. Pacific Islands, and two are in Guam.¹⁴⁹

III. CERCLA

While the RCRA was created to prevent the illegal disposal of hazardous waste by tracking it from “cradle to grave,” meaning from waste generation to ultimate treatment and disposal,¹⁵⁰ CERCLA gave the United States the power to both take direct action to remove imminent threats and force responsible parties to pay for the cleanup of hazardous substances. The RCRA was created to be a preventative statute (created to deter improper handling and disposal of hazardous waste); conversely, CERCLA is a remedial statute (created to facilitate the cleanup of the numerous sites already contaminated by hazardous substances).¹⁵¹ The

¹⁴⁴ See generally BRIAN CRAIG, *STRINGFELLOW ACID PITS: THE TOXIC AND LEGAL LEGACY* (2020).

¹⁴⁵ See *Superfund's 40th Anniversary—A Look-Back at the Decades*, EPA (Feb. 14, 2025), <https://www.epa.gov/superfund/superfunds-40th-anniversary-look-back-decades> [<https://perma.cc/DY3W-UGRL>]. (explaining that the passage of CERCLA was a response to national concern fueled by the publicity of Love Canal in New York, Valley of the Drums in Kentucky, Times Beach in Missouri, and Stringfellow in California).

¹⁴⁶ Press Release, EPA, *EPA's Hazardous Waste Regulations Effective November 19, 1980* (Nov. 19, 1980), <https://www.epa.gov/archive/epa/aboutepa/epas-hazardous-waste-regulations-effective-november-19-1980.html> [<https://perma.cc/MKJ5-48KK>].

¹⁴⁷ See *Superfund's 40th Anniversary—A Look-Back at the Decades*, *supra* note 145.

¹⁴⁸ *Current NPL Updates: New Proposed NPL Sites and New NPL Sites*, EPA (July 7, 2025), <https://www.epa.gov/superfund/current-npl-updates-new-proposed-npl-sites-and-new-npl-sites/> [<https://perma.cc/MWX2-LZNH>].

¹⁴⁹ *Search for Superfund Sites Where You Live: National Priorities List and Superfund Alternative Approach Sites*, EPA (Oct. 1, 2025), <https://www.epa.gov/superfund/search-superfund-sites-where-you-live/> [<https://perma.cc/4VKW-GWGE>].

¹⁵⁰ H.R. Rep. No. 96–1016, pt. 1, at 17 (1980), *reprinted in* 1980 U.S.C.C.A.N. 6119, 6120 (describing cradle-to-grave as the regulation of hazardous waste from its initial generation to its ultimate disposal). See generally *Am. Mining Cong. v. EPA*, 824 F.2d 1177, 1178–79 (D.C. Cir. 1987) (discussing the legislative history and purpose of the RCRA).

¹⁵¹ JOHN A. HIRD, *SUPERFUND: THE POLITICAL ECONOMY OF ENVIRONMENTAL RISK* 122–23 (1994).

following sections will discuss the foundational structure and provisions of CERCLA.

A. The NCP and the NPL

With the passing of CERCLA, the National Priorities List (NPL) was created, listing the most hazardous sites in the United States.¹⁵² The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) was established in 1968 to respond to hazardous spills in U.S. waters.¹⁵³ The NCP states three ways a site is placed on the NPL: (1) the site receives a sufficiently high Hazard Ranking System (HRS) score; (2) a state or territory designates the site to be added to the NPL; or (3) the Agency for Toxic Substances and Disease Registry (ATSDR) issues a public health advisory regarding the site.¹⁵⁴ When it was first published in 1983, the NPL listed 406 sites.¹⁵⁵ Today, it currently lists over 1,300 sites.¹⁵⁶ After over 40 years, only 459 of the prioritized sites have reached a state where they could be taken off the list.¹⁵⁷

B. Preliminary Assessment and Site Investigation

CERCLA has two initial investigative components when determining the initial extent of damage to a site. As the name indicates, the first step of gathering information is the EPA's preliminary assessment (PA).¹⁵⁸ The EPA looks at records and historical information to determine if there is a threat to human health and the environment.¹⁵⁹ The next step

¹⁵² Richard L. Revesz, *Federalism and Environmental Regulation: A Public Choice Analysis*, 115 HARV. L. REV. 553, 595 (2001); *Superfund: National Priorities List (NPL)*, EPA (Oct. 1, 2025), <https://www.epa.gov/superfund/superfund-national-priorities-list-npl/> [<https://perma.cc/5UWM-9MP4>].

¹⁵³ *National Oil and Hazardous Substances Pollution Contingency Plan (NCP) Overview*, EPA (Jul. 15, 2025), <https://www.epa.gov/emergency-response/national-oil-and-hazardous-substances-pollution-contingency-plan-ncp-overview/> [<https://perma.cc/7GVF-4NPY>] (describing the origin of the NCP).

¹⁵⁴ 40 C.F.R. § 300.425(c) (2025).

¹⁵⁵ *Superfund History-Printable Version*, EPA (Feb. 14, 2025), <https://www.epa.gov/superfund/superfund-history-printable-version/> [<https://perma.cc/J3G7-EP2H>].

¹⁵⁶ *Superfund: National Priorities List (NPL)*, *supra* note 153.

¹⁵⁷ *NPL Site Totals by Status and Milestone*, EPA (Oct. 1, 2025), <https://www.epa.gov/superfund/national-priorities-list-npl-site-totals-status-and-milestone> [<https://perma.cc/ALX9-QN3X>].

¹⁵⁸ Ragna Henrichs, *Superfund's NPL: The Listing Process*, 63 ST. JOHN'S L. REV. 717, 730 (1989).

¹⁵⁹ *Id.* at 730–32.

is the site investigation (SI), which involves testing the soil, water, and air to determine if there are hazardous substances present or if there is a threatened release of the substances.¹⁶⁰ Through the limited investigation of the PA and SI, the EPA quickly evaluates the risk of hazardous releases or potential releases posed by the site.¹⁶¹ This information can help form the basis for HRS scoring.¹⁶²

The PA is a relatively quick assessment in part to analyze and determine the urgency of the environmental threat. If the assessment reveals that the threat is imminent, a removal action takes place.¹⁶³ Removal actions are solely for addressing immediate environmental problems.¹⁶⁴ The removal action can be part of the remedial action to be taken at the site.¹⁶⁵ Removal actions often include fencing, alternate water supplies, short-term cleanup, and containment.¹⁶⁶

The following figure demonstrates the process of analysis sites undergo before being placed on the NPL:

¹⁶⁰ *Id.* at 732–33.

¹⁶¹ *Id.* at 730–33.

¹⁶² *Id.* at 733.

¹⁶³ See 42 U.S.C. § 9604(a)(1) (stating that the President is authorized to remove a hazardous substance or pollutant when release or threat of release of the substance or pollutant into the environment is imminent or poses a substantial danger to public health).

¹⁶⁴ See *Cleanup Approaches: EPA Emergency Response and Removals*, EPA (Oct. 15, 2025), <https://www.epa.gov/superfund/cleanup-approaches> [<https://perma.cc/6RT6-D99W>].

¹⁶⁵ See Memorandum from Stephen Luftig, Director, Off. of Emergency & Remedial Response, & Bary Breen, Director, Off. of Site Remediation Enft, to Regions I–X Program & Legal Division Directors 1 (Feb. 14, 2000), <https://semsub.epa.gov/work/HQ/174826.pdf> [<https://perma.cc/DR5R-NHP8>] (“Approximately one third of the first 500 projects at NPL sites that have achieved construction completion have had some removal activity.”).

¹⁶⁶ *Cleanup Approaches: EPA Emergency Response and Removals*, *supra* note 164

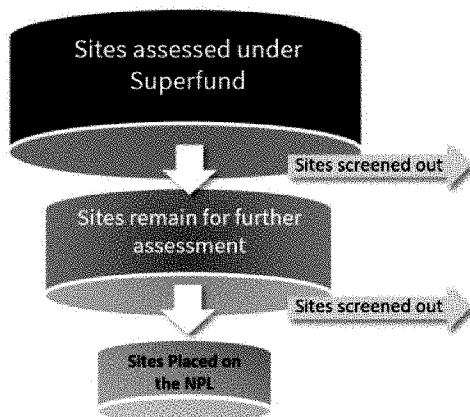


Figure 1: EPA Process for Screening Sites for Potential Placement on the NPL¹⁶⁷

C. Remedial Investigation and Feasibility Study

Once a site is placed upon the NPL, the EPA or the PRP performs a remedial investigation and feasibility study (RI/FS).¹⁶⁸ The remedial investigation allows for the collection of information that will inform the parties about developing remedial alternatives for site cleanup.¹⁶⁹ Following the investigation is a feasibility study that uses the investigatory information to create feasible remedial alternatives.¹⁷⁰ In short, the remedial investigation is used to establish the basic nature of the site contamination and potential exposure risks and pathways.¹⁷¹ This information is then applied in the feasibility study to create and measure cleanup alternatives.¹⁷² There are nine criteria used to determine the appropriate remedy at a site.¹⁷³

¹⁶⁷ *Superfund Site Assessment Home: About Superfund Site Assessment*, *supra* note 88.

¹⁶⁸ 40 C.F.R. § 300.430(a)(2) (2025) (stating that the purpose of the RI/FS is to assess the condition of the site and evaluate alternatives to help select a remedy).

¹⁶⁹ § 300.430(d)(1).

¹⁷⁰ § 300.430(e)(1) (“The primary objective of the feasibility study (FS) is to ensure that appropriate remedial alternatives are developed and evaluated such that relevant information concerning the remedial action options can be presented to a decision-maker and an appropriate remedy selected.”).

¹⁷¹ *See* § 300.430(d)(1).

¹⁷² *See* § 300.430(e)(1).

¹⁷³ The nine criteria are (1) overall protection of human health and the environment; (2) compliance with ARARs; (3) long-term effectiveness and permanence; (4) reduction of toxicity,

At this point, it is necessary to point out the fact that a Superfund site may have several operable units (OUs).¹⁷⁴ The RI/FS process may indicate that the geography, hydrogeology, and hazardous constituents of concern require different timing or approaches to cleanup.¹⁷⁵ For example, there may be different OUs established for the treatment of surface water and groundwater contamination. Additionally, there may be different OUs for surface soil containment and incineration to prevent off-site contamination. There may be an OU created solely to address a major chemical pollutant of concern, one that is particularly hazardous, toxic, or carcinogenic that must be addressed much faster than other chemicals at the site (relatively speaking).

Overall, the RI/FS more thoroughly establishes the nature and extent of site contamination.¹⁷⁶ It better determines the contaminants of primary concern at the site and the technologies necessary to address those concerns.¹⁷⁷ The RI/FS also reviews potential costs associated with different cleanup strategies and technologies.¹⁷⁸ This stage of investigation and analysis results in a proposed plan of action and a period for public comments.¹⁷⁹ The entire RI/FS can take a long time with the potential for substantial (and recoverable) associated costs.¹⁸⁰

D. The Record of Decision: Remedial Design and Remedial Action

After the RI/FS, the EPA issues its record of decision (ROD).¹⁸¹ The ROD is used to document the EPA's decision-making process vis-à-vis

mobility, or volume through treatment; (5) short-term effectiveness; (6) implementability; (7) cost; (8) state acceptance; and (9) community acceptance. § 300.430(e)(9)(iii)(A)-(I).

¹⁷⁴ See § 300.430(a)(1)(ii)(A).

¹⁷⁵ See *id.*; § 300.430(d)(2)(i), (iii).

¹⁷⁶ *About the Superfund Cleanup Process*, EPA (Sep. 22, 2025), <https://www.epa.gov/superfund/about-superfund-cleanup-process#pasi> [<https://perma.cc/TJ7J-F2JC>].

¹⁷⁷ *Id.*

¹⁷⁸ *Id.*

¹⁷⁹ John S. Applegate & Steven M. Wesloh, *Short Changing Short-Term Risk: A Study of Superfund Remedy Selection*, 15 YALE J. ON REG. 269, 298 (1998).

¹⁸⁰ See U.S. GEN. ACCT. OFF., SUPERFUND: TIMES TO COMPLETE SITE LISTING AND CLEANUP 18 (1998), <https://www.gao.gov/assets/t-rced-98-74.pdf> [<https://perma.cc/XKB4-SDG5>] (documenting average time from NPL site placement to the end of the RI/FS); *Detrex Chem. Indus., Inc. v. Emps. Ins. of Wausau*, 681 F. Supp. 438, 445 (N.D. Ohio 1987) (noting that RI/FS expenses are recoverable as CERCLA cleanup costs).

¹⁸¹ Applegate & Wesloh, *supra* note 179, at 298. See generally EPA, A GUIDE TO PREPARING SUPERFUND PROPOSED PLANS, RECORDS OF DECISION, AND OTHER REMEDY SELECTION DECISION DOCUMENTS 1-4 to -5 (1999) [hereinafter EPA GUIDE], https://web.archive.org/web/20211103144840/https://www.epa.gov/sites/default/files/2015-02/documents/rod_guidance.pdf [<https://perma.cc/W5AY-2WBK>].

the site remediation; it also demonstrates that the EPA has met the requirements of CERCLA and the NCP.¹⁸² The ROD states the official cleanup decision for the site or its OUs.¹⁸³ Additionally, it creates a formal administrative record necessary to proceed with the site cleanup.¹⁸⁴ All the facts, analyses, and policy determinations considered up to this point must be included in the ROD to “support the selection of a remedial action.”¹⁸⁵ Within the ROD, the EPA summarizes site contamination and environmental issues to be addressed. It describes the method that will be used to clean the site while describing the relative strengths and weaknesses of the various alternative remedies.¹⁸⁶ The ROD will contain the site history, the site’s environmental characteristics, and the final remedy for the site.¹⁸⁷

To elaborate on the impact of the proposed remedy, the ROD will also include a recitation stating how the remedy will protect human health and the environment and the potential future uses of the site.¹⁸⁸ As a requirement of CERCLA’s section 121, the preferred remedies for sites are permanent ones that significantly reduce the volume, toxicity, and mobility of the pollutants.¹⁸⁹ The NCP states that the remedy selected must be “protective of human health and the environment”¹⁹⁰; it also must meet all applicable, relevant, and appropriate requirements (ARARs).¹⁹¹ ARARs can be any standard or requirement pursuant to federal law, and any standard or requirement pursuant to state law that is more stringent

¹⁸² *Detrex*, 681 F. Supp. at 445 n.8.

¹⁸³ EPA GUIDE, *supra* note 181, at 1-5.

¹⁸⁴ 40 C.F.R. § 300.430(f)(5)(i).

¹⁸⁵ *Id.*

¹⁸⁶ EPA GUIDE, *supra* note 181, at 6-1 to 6-2.

¹⁸⁷ *Id.*

¹⁸⁸ *Id.*

¹⁸⁹ *Id.* at 6-1, 6-12; *see also* 42 U.S.C. § 9621(b)(1) (“Remedial actions in which treatment which permanently and significantly reduces the volume, toxicity or mobility of the hazardous substances, pollutants, and contaminants is a principal element, are to be preferred over remedial actions not involving such treatment.”).

¹⁹⁰ § 300.430(f)(2)(A).

¹⁹¹ § 9621(d)(2)(A) (directing remedies on-site to at least “attain such legally applicable or relevant and appropriate [state] standard, requirement, criteria, or limitation” that has been identified to the President by the state in a timely manner); *see also* Memorandum from James E. Woolford, Director, Off. of Superfund Remediation & Tech. Innovation, to Superfund National Program Managers, Regions 1-10, at 2 (Oct. 20, 2017), <https://semsub.epa.gov/work/HQ/197017.pdf> [<https://perma.cc/LMM6-5XTD>] (“The NCP establishes that communications on ARARs should begin during the early scoping of the RI/FS.”); 40 CFR § 300.515(d)(1)–(2), (h)(2).

than the federal standards.¹⁹² Pursuant to the NCP, the selected remedy considers long-term effectiveness and reduction of toxicity, mobility, and volume of contaminants.¹⁹³ Ultimately, the ROD states the cleanup decision for the site or for its OUs.¹⁹⁴

While the ROD establishes the general remediation at the site, the detailed planning of remediation activities occurs in the RD/RA phase.¹⁹⁵ The actual cleanup is effectuated through the RD/RA process.¹⁹⁶ The RD/RA is the phase that implements the ROD based on the ROD specifications and allows for the adaptation to any site changes or additional information that may affect the site's remediation.¹⁹⁷ Site-changing characteristics that can occur could be from weather, failing emergency containment measures, or new site information. The NCP also specifically anticipates additional work being necessary to address unforeseen situations such as "newly discovered sources, types, or quantities of hazardous substances."¹⁹⁸

IV. CERCLA LIABILITY

As one can see, the CERCLA cleanup process can be extraordinarily complex and costly. The question of who is liable becomes extremely important to PRPs and the United States. In this section, we will discuss the types of liability that a PRP can face, when they are protected from liability, and when they can sue others to force them to contribute. Be

¹⁹² § 9621(d)(2)(A); *see also* *Applicable or Relevant and Appropriate Requirements (ARARs)*, EPA (Oct. 15, 2025), <https://www.epa.gov/superfund/applicable-or-relevant-and-appropriate-requirements-arars#tab-1> [<https://perma.cc/JHW5-CCS9>].

¹⁹³ *See* § 300.430(f)(5)(ii) (requiring the ROD to explain how the selected remedy is protective of human health and the environment, is cost-effective, and maximizes permanent solutions, which ARARs the remedy will and will not attain (and the corresponding waiver and justification), and whether the statutory preference for reducing toxicity, mobility, or volume is met and, if not met, an explanation of why not).

¹⁹⁴ EPA GUIDE, *supra* note 181, at 6-2 (stating that the Decisions Summary in the ROD identifies the Selected Remedy).

¹⁹⁵ Applegate & Wesloh, *supra* note 179, at 298 (studying the remedy selection process in Superfund cases).

¹⁹⁶ EPA GUIDE, *supra* note 181, at 1-6.

¹⁹⁷ *Id.*; *see* Jonathan Z. Cannon, *Adaptive Management in Superfund: Thinking Like a Contaminated Site*, 13 N.Y.U. ENV'T L.J. 561, 591 (2005). *See generally* Alfred R. Light, *CERCLA's Cost Recovery Statute of Limitations: Closing the Books or Waiting for Godot?*, 16 SW. ENV'T L.J. 245 (2008) (discussing the basic RD/RA process for CERCLA cleanup remedies).

¹⁹⁸ 40 C.F.R. § 300.435(e)(1)(i) (authorizing EPA to take appropriate steps if it is found that additional work is needed because of unforeseen circumstances or new discoveries at the facility).

warned, though; CERCLA is a statute that is neither known for its brevity nor its harmonious arrangement.¹⁹⁹ CERCLA is a statutory scheme with several provisions to address the question of who pays.²⁰⁰ However, to decide this question, one must first wind through what Justice Thomas described in *Guam* as a “reticulated statutory matrix of environmental duties and liabilities.”²⁰¹

CERCLA creates four broad categories of PRPs who may be held liable for hazardous releases²⁰² at a facility.²⁰³ The four general PRP classes are current owners and operators, owners and operators at the time of disposal, generators and arrangers of the disposal or treatment of the hazardous substances, and transporters of the hazardous substances.²⁰⁴ If there is a release or threatened release of hazardous substances, section 104(a) and section 107(a) of CERCLA make PRPs in those four categories liable for the response costs.²⁰⁵

Owners and operators are broad terms that include current property owners;²⁰⁶ owners of leased warehouses;²⁰⁷ owners of the polluting

¹⁹⁹ *Revitalizing Auto Cmty's. Env't Response Tr. v. Nat'l Grid USA*, 10 F.4th 87, 92 (2d Cir. 2021); *W.R. Grace & Co.—Conn. v. Zotos Int'l, Inc.*, 559 F.3d 85, 88 (2d Cir. 2009).

²⁰⁰ *Territory of Guam v. United States*, 141 S. Ct. 1608, 1611 (2021).

²⁰¹ *Id.* at 1613 (stating that the obvious place to look for liability under CERCLA is within its “reticulated statutory matrix of environmental duties and liabilities”).

²⁰² 42 U.S.C. § 9601(22) (defining “release” as “any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing any hazardous substance or pollutant or contaminant)”).

²⁰³ § 9601(9) (defining “facility” as “any building, structure, installation, equipment, pipe or pipeline, . . . well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft, or . . . any site or area where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located”).

²⁰⁴ 42 U.S.C. § 9607(a); *Burlington N. & Santa Fe Ry. Co. v. United States*, 556 U.S. 599, 608–09 (2009).

²⁰⁵ 42 U.S.C. §§ 9604(a), 9607(a); *accord* *Consolidation Coal Co. v. Ga. Power Co.*, 781 F.3d 129, 143 (4th Cir. 2015); *N.J. Turnpike Auth. v. PPG Indus., Inc.*, 197 F.3d 96, 103 (3d Cir. 1999). *See generally Superfund Enforcement Authorities*, EPA (Sep. 19, 2025), <https://www.epa.gov/enforcement/superfund-enforcement-authorities> [<https://perma.cc/9JMK-K8W3>]. Response costs can include those incurred in assessing site conditions, supervising removal of waste, and preventing further danger to the public. *State of New York v. Shone Realty Corp.*, 759 F.2d 1032, 1043 (2d Cir. 1985); *Cadillac Fairview/Cal., Inc. v. Dow Chem. Co.*, 840 F.2d 691, 695 (9th Cir. 1988).

²⁰⁶ § 9607(a)(1); *see also* *Litgo N.J. Inc. v. Comm'r N.J. Dep't of Env't Prot.*, 725 F.3d 369, 379 (3d Cir. 2013); *Pa. Dep't of Env't Prot. v. Trainer Custom Chem., LLC*, 906 F.3d 85, 87 (3d Cir. 2018).

²⁰⁷ *See Burlington*, 556 U.S. at 609.

facility;²⁰⁸ successor corporations;²⁰⁹ corporate offices who have authority over waste-handling practices;²¹⁰ people who direct or manage the conduct of the facility;²¹¹ and parent corporations that actively participate in the operations of the facility relating to the generation, transportation, or disposal of hazardous substances.²¹² Liability accrues to both current and past owners.²¹³ CERCLA states that this liability is retroactive, meaning a party can be liable for disposals on the site at the time the party owned or operated the facility on the site.²¹⁴

The generators of hazardous substances are also potentially liable parties.²¹⁵ A *prima facie* case against a generator may be established by showing that (a) the generator's hazardous substances were sent to a facility for disposal or treatment and (b) those substances, or substances like them, were present at the Superfund site.²¹⁶ In 2009, the Supreme Court limited arranger liability to someone who takes intentional steps to dispose of hazardous substances.²¹⁷

The final type of PRP liable for Superfund cleanup are the transporters. When there has been a release at a site or the threatened

²⁰⁸ United States v. Bestfoods, 524 U.S. 51, 65 (1998).

²⁰⁹ Chesapeake & Potomac Tel. Co. of Va. v. Peck Iron & Metal Co., 814 F. Supp. 1266, 1268–69 (E.D. Va. 1992).

²¹⁰ United States v. Ne. Pharm. & Chem. Co., 810 F.2d 726, 743 (8th Cir. 1986).

²¹¹ *Bestfoods*, 524 U.S. at 66.

²¹² *Id.* at 55.

²¹³ See 42 U.S.C. § 9607(a)(1)–(2). Although CERCLA does not specifically state that current owners are liable, courts have held that owners or operators who did so at the site at the time of an EPA response action are liable. See United States v. Fleet Factors Corp., 901 F.2d 1550, 1554 (11th Cir. 1990).

²¹⁴ William A. Montgomery Jr., *Constitutional Implications of CERCLA: Due Process Challenges to Response Costs and Retroactive Liability*, 31 WASH. U.J. URB. & CONTEMP. L. 279, 282 (1987); Bruce Howard, *Reforming Retroactive and Current Owner Liability Standards in CERCLA to Increase Fairness and Efficiency*, 9 J. NAT. RES. & ENV'T L. 325, 326–27 (1994); see § 9607(a)(2); see also United States v. Mexico Feed & Seed Co., 980 F.2d 478, 484 n.4 (8th Cir. 1992). See generally Litgo N.J. Inc. v. Comm'r N.J. Dep't of Env't Prot., 725 F.3d 369, 378–79 (3d Cir. 2013) (describing CERCLA liability for owners and operators).

²¹⁵ § 9607(a)(3) (holding responsible “any person who by contract, agreement, or otherwise arranged the disposal[,] . . . treatment, or [transportation] of hazardous substances owned or possessed by such person”); see also United States v. Monsanto Co., 858 F.2d 160, 169–70 (4th Cir. 1988).

²¹⁶ United States v. Wade, 577 F. Supp. 1326, 1332–33 (E.D. Pa. 1983); United States v. S.C. Recycling & Disposal, Inc., 653 F. Supp. 984, 992 (D.S.C. 1986); United States v. Conservation Chem. Co., 619 F. Supp. 162, 190 (W.D. Mo. 1985).

²¹⁷ Burlington N. & Santa Fe Ry. Co. v. United States, 556 U.S. 599, 611 (2009).

release at a site, transporters of the hazardous substances may be liable.²¹⁸ The term “transport” is broadly defined to include the movement of hazardous substances by any mode, including pipelines.²¹⁹ However, transporter liability is limited by CERCLA. The statute limits transporter liability to substances released (or threatened to be released) at facilities chosen by the transporter.²²⁰ Thus, if a transporter helps select the facility or site, the transporter may be liable.²²¹

In conjunction with its broad liability scheme, CERCLA has a few extremely limited defenses. The defenses PRPs can raise to Superfund liability are limited to releases caused by an act of God, an act of war, or an act or omission by a third party.²²² The third-party rule is limited to situations where the third party is not the PRP’s employee or agent and does not otherwise have a contractual relationship with the PRP.²²³ Additionally, the third party must be the sole cause of the harm at the site; consequently, the PRP must prove that it used due care in relation to the hazardous substances in question at the site.²²⁴ CERCLA also provides PRPs an “innocent landowner” defense. This limited defense covers landowners who acquire property without knowledge or reason to know about hazardous contamination.²²⁵

CERCLA’s overall standard of liability is strict, joint, and several.²²⁶ Joint and several liability is a very severe standard; the parties are liable both individually and as a group for the entire site cleanup.²²⁷ The parties are also strictly liable for the cleanup, which means liability without

²¹⁸ § 9607(a)(4) (holding responsible “any person who accepts or accepted any hazardous substances for transport to disposal or treatment facilities, or sites selected by such person”).

²¹⁹ 42 U.S.C. § 9601(26).

²²⁰ § 9607(a)(4).

²²¹ *United States v. Hardage*, 750 F. Supp. 1444, 1458 (W.D. Okla. 1990).

²²² § 9607(b); *see also Defenses to and Exemptions from Superfund Liability*, EPA (May 27, 2023), <https://www.epa.gov/enforcement/defenses-and-exemptions-superfund-liability> [<https://perma.cc/JL84-FHX7>] (overviewing defenses and exemptions).

²²³ § 9607(b)(3).

²²⁴ *Id.*

²²⁵ *Third Party Defenses/Innocent Landowners*, EPA (Nov. 6, 2024), <https://www.epa.gov/enforcement/third-party-defensesinnocent-landowners> [<https://perma.cc/ZK59-PAFU>].

²²⁶ *See United States v. Conservation Chem. Co.*, 589 F. Supp. 59, 62–63 (W.D. Mo. 1984); *Atl. Richfield Co. v. Christian*, 140 S. Ct. 1335, 1346 (2020).

²²⁷ *Conservation Chem.*, 589 F. Supp. at 63.

fault.²²⁸ The amount of care that was exercised by the PRPs is irrelevant.²²⁹ As one might assume, CERCLA liability has been a major point of contention since its inception.²³⁰ The problems associated with CERCLA liability have been exacerbated by the confusion surrounding the right to contribution and the right of contribution protection. Although both are statutory rights, courts' interpretations of these rights have resulted in much confusion and litigation.²³¹

V. RIGHT OF CONTRIBUTION AND CONTRIBUTION PROTECTION

CERCLA provides a statutory right of contribution to PRPs who have already paid a portion of the cleanup costs.²³² This enables those PRPs to seek reimbursement from other PRPs. Essentially, a PRP who has already paid a portion of the cleanup costs can seek reimbursement from other PRPs for their share of the costs.²³³ The right of contribution serves as a means of apportioning the costs of cleaning up a hazardous waste site among the responsible parties, rather than placing the entire burden upon one party.²³⁴ It also encourages PRPs to more rapidly come forward to become part of the cleanup process with the knowledge that they may recover costs from more reluctant parties associated with the site.

The right of contribution under CERCLA was established by the Superfund Amendments and Reauthorization Act of 1986 (SARA), which

²²⁸ W. PAGE KEETON ET AL., PROSSER AND KEATON ON THE LAW OF TORTS 534 (W. Page Keeton ed., 5th ed. 1984).

²²⁹ *See id.*

²³⁰ *See, e.g., Superfund Reform and Reauthorization: Hearing on S. 8 Before the S. Comm. on Env't & Pub. Works*, 105th Cong. 147 (1997) (statement of Susan Eckerly, Dir., Fed. Gov't Rels., Nat'l Fed'n of Indep. Bus.) ("[T]he retroactive joint and several liability scheme is what our members find most unbelievable and unfair."); 138 CONG. REC. E3328 (daily ed. Oct. 29, 1992) (statement of Rep. Norman F. Lent) ("The root cause of Superfund's ineffectiveness is its fund raising mechanism, a strict retroactive liability system founded on the concept that individual polluters should pay the cost of cleanup.").

²³¹ *See, e.g., United States v. Boeing Co.*, 670 F. Supp. 3d. 1185, 1190–92 (W.D. Wash. 2023) (holding that hold-harmless agreements under CERCLA allow private parties to allocate cleanup costs to third parties but do not shield corporations from liability), *United States v. Bestfoods*, 524 U.S. 51, 55 (1998) (holding that a parent company can be found liable under CERCLA for acts of a subsidiary if the parent company exerted control over the subsidiary).

²³² 42 U.S.C. § 9613(f) (allowing PRPs to seek contribution from other PRPs for their share of the cleanup costs incurred because of a CERCLA response action).

²³³ *Id.*

²³⁴ *See* Martin A. McCrory, *Who's on First: CERCLA Cost Recovery, Contribution, and Protection*, 37 AM. BUS. L.J. 3, 21–22 (1999) [hereinafter McCrory, *Who's on First*].

amended CERCLA to include section 113(f).²³⁵ Prior to SARA, Congress had rejected the idea of contribution while recognizing the private right of action.²³⁶ This right of contribution protection has been acknowledged and affirmed by the Supreme Court and provides liable parties with the theoretical ability to recover their fair share of the cleanup costs incurred because of a CERCLA response action.²³⁷ While CERCLA does not define contribution, the Court stated that

[c]ontribution is defined as the “tortfeasor’s right to collect from others responsible for the same tort after the tortfeasor has paid more than his or her proportionate share, the shares being determined as a percentage of fault.” Nothing in [CERCLA] § 113(f) suggests that Congress used the term “contribution” in anything other than this traditional sense.²³⁸

As it is currently written, CERCLA provides overlapping, complementary, and distinct causes of action for parties involved in

²³⁵ Superfund Amendments and Reauthorization Act of 1986, Pub. L. No. 99-499, § 113(b), 100 Stat. 1613, 1647 (codified at 42 U.S.C. § 9613(f)).

²³⁶ McCrory, *Who’s on First*, *supra* note 234, at 22; *see also* 126 CONG. REC. H9463 (daily ed. Sep. 23, 1980) (statement of Rep. Al Gore).

²³⁷ In *Cooper Industries, Inc. v. Aviall Services, Inc.*, the Supreme Court clarified that the right of contribution under CERCLA section 113(f) is available to PRPs that have already resolved their liability with the government through a settlement or court order. 543 U.S. 157, 167 (2004). The Court stated that:

As noted above, § 113 provides two express avenues for contribution: § 113(f)(1) (“during or following” specified civil actions) and § 113(f)(3)(B) (after an administrative or judicially approved settlement that resolves liability to the United States or a State). Section 113(g)(3) then provides two corresponding 3-year limitations periods for contribution actions, one beginning at the date of judgment, § 113(g)(3)(A), and one beginning at the date of settlement, § 113(g)(3)(B). Notably absent from § 113(g)(3) is any provision for starting the limitations period if a judgment or settlement never occurs, as is the case with a purely voluntary cleanup. The lack of such a provision supports the conclusion that, to assert a contribution claim under § 113(f), a party must satisfy the conditions of either § 113(f)(1) or § 113(f)(3)(B).

Id.

Then, in *United States v. Atlantic Research Corp.*, the Supreme Court re-affirmed that section 113(f) explicitly grants PRPs a right to contribution. 551 U.S. 128, 138 (2007). The Court clarified that contribution is available when the PRP has paid more than their share of proportionate fault. *Id.* The Court also stated that the right of contribution under CERCLA section 113(f) is a substantive right that is retroactive and available to PRPs facing cleanup costs, regardless of when the cleanup costs were incurred. *See id.* It further affirmed that “a PRP’s right to contribution under § 113(f)(1) is contingent upon an inequitable distribution of common liability among liable parties.” *Id.* at 139.

²³⁸ *Id.* at 138 (citation omitted) (quoting *Contribution*, BLACK’S LAW DICTIONARY (8th ed. 2004)).

cleanup and recovery.²³⁹ Sections 107(a) and 113(f) provide remedies for different procedural circumstances. A section 107(a) action is subject to strict liability, while section 113 states the defendant is entitled to “an equitable allocation” that considers fault and the amount of care exercised.²⁴⁰ Section 107(a) permits recovery of cleanup costs; it does not create a right to contribution for these costs.²⁴¹ This allows private parties to recover without establishing third-party liability under section 107(a).²⁴² “[Section 113(f)(1)] authorizes a PRP to seek contribution ‘during or following’ a suit under § 106 or § 107(a).”²⁴³ Section 107 cases are limited to a few narrow defenses while section 113 cases specifically allow discretionary use of equitable factors when determining fault.²⁴⁴ Section 107 liability is joint and several, while section 113 liability is only several.²⁴⁵ Importantly, the statutes of limitations are also different with section 107 remedial actions expiring at six years and section 113 contribution actions being only three years in length.²⁴⁶ The Supreme Court affirmed that statutes must be read as a whole.²⁴⁷ Sections 107(a) and 113(f), while related, “provide two ‘clearly distinct’ remedies” for “different procedural circumstances.”²⁴⁸ While these claims are distinct, because they overlap, they are unclear.

CERCLA provides PRPs with some contribution protection. Section 113(f)(2) provides that a PRP that has resolved its liability to the government through a judicially approved settlement or through a consent decree is not subject to further contribution claims from other PRPs.²⁴⁹ This protection from contribution helps to encourage PRPs to settle their liabilities with the government and to avoid costly and time-consuming

²³⁹ *Id.* at 139–41 (explaining that CERCLA’s statutory language and legislative history—and court cases interpreting the statute—show clear differences between the two provisions); *see also* McCrory, *supra* note 234, at 22–25.

²⁴⁰ McCrory, *Who’s on First*, *supra* note 234, at 23.

²⁴¹ *Atl. Rsch. Corp.*, 551 U.S. at 139.

²⁴² *Id.* (noting that PRPs can only recover costs they have incurred cleaning up a site under section 107(a)); *see also* 42 U.S.C. § 9607(a)(4)(B).

²⁴³ *Atl. Rsch. Corp.*, 551 U.S. at 138 (quoting 42 U.S.C. § 9613(f)(1)).

²⁴⁴ *See id.* at 140.

²⁴⁵ *See id.*

²⁴⁶ *Id.* at 139; § 9613(g)(1).

²⁴⁷ *Atl. Rsch. Corp.*, 551 U.S. at 135 (quoting *King v. St. Vincent’s Hospital*, 502 U.S. 215, 221 (1991)).

²⁴⁸ *Id.* at 138–39 (quoting *Consol. Edison Co. of N.Y. v. UGI Utils., Inc.*, 423 F.3d 90, 99 (2d Cir. 2005)).

²⁴⁹ 42 U.S.C. § 9613(f)(2).

litigation.²⁵⁰ However, it does not protect against section 107 actions for cost recovery that are brought by non-settling parties.²⁵¹ Essentially, settling PRPs are protected under section 113(f)(2) but could be potentially open to liability under section 107 to a plaintiff PRP who would otherwise be barred from seeking contribution.²⁵²

While protection from contribution under CERCLA is a complex issue that has been the subject of much debate and legal dispute, the Supreme Court has held that the right of contribution under CERCLA is a form of protection from double liability.²⁵³ This means that a PRP who has already paid a portion of the cleanup costs cannot be held liable for the same costs again by another PRP.²⁵⁴ Protection from double liability ensures that PRPs are not burdened with a disproportionate and inequitable share of the cleanup costs. The Court has also indicated that it is committed to protecting settlements which are “the heart of the Superfund statute.”²⁵⁵

As discussed previously, CERCLA imposes strict liability on PRPs for the cleanup of hazardous waste sites, and the right of contribution and contribution protection serve as a means of apportioning the costs of cleanup among the PRPs.²⁵⁶ The protection from contribution under CERCLA is a critical component of the Act, which helps to ensure that the costs of cleanup are shared fairly among the PRPs and that they are not subject to double liability. The Supreme Court attempted to resolve some of the confusion surrounding contribution in *Territory of Guam v. United States*.

²⁵⁰ See Steven Ferrey, *Inverting the Law: Superfund Hazardous Substance Liability and Supreme Court Reversal of All Federal Circuits*, 33 WM. & MARY ENV'T. L. & POL'Y REV. 633, 643–44 (2009).

²⁵¹ McCrory, *Who's on First*, *supra* note 234, at 25.

²⁵² See *id.*; see also Justin R. Pidot & Dale Ratliff, *The Common Law of Liable Party CERCLA Claims*, 70 STAN. L. REV. 191, 223 (2018) (arguing that settlement incentives diminish proportionately when PRPs can bring section 107 claims).

²⁵³ See *Atl. Rsch. Corp.*, 551 U.S. at 139–41.

²⁵⁴ See *id.*

²⁵⁵ *Atl. Richfield Co. v. Christian*, 140 S. Ct. 1335, 1355 (2020) (stating that sixty-nine percent of the EPA's current cleanup work is comprised of negotiating settlement agreements and issuing orders for cleanups); see also 42 U.S.C. § 9622(a) (directing the President to proceed by settlement “[w]henever practicable and in the public interest . . . in order to expedite effective remedial actions and minimize litigation”).

²⁵⁶ See 42 U.S.C. § 9607(a); 42 U.S.C. § 9613(f); see also Martin A. McCrory, *The Equitable Solution to Superfund Liability: Creating a Viable Allocation Procedure for Businesses at Superfund Sites*, 23 VT. L. REV. 59, 66–71 (1998).

VI. *TERRITORY OF GUAM V. UNITED STATES*

In *Territory of Guam v. United States*, the United States Supreme Court interpreted CERCLA's contribution provision. In *Guam*, the Court considered whether a CERCLA-specific liability must be resolved to give rise to a CERCLA contribution action.²⁵⁷ The case involved a former United States Navy site located in the Territory of Guam known as the Ordot Dump.²⁵⁸ The site had been used as a dumping ground to receive uncontrolled waste since before World War II.²⁵⁹ A cursory review of Guam's history sheds light on the conscious disregard that led to its current hazardous situation.

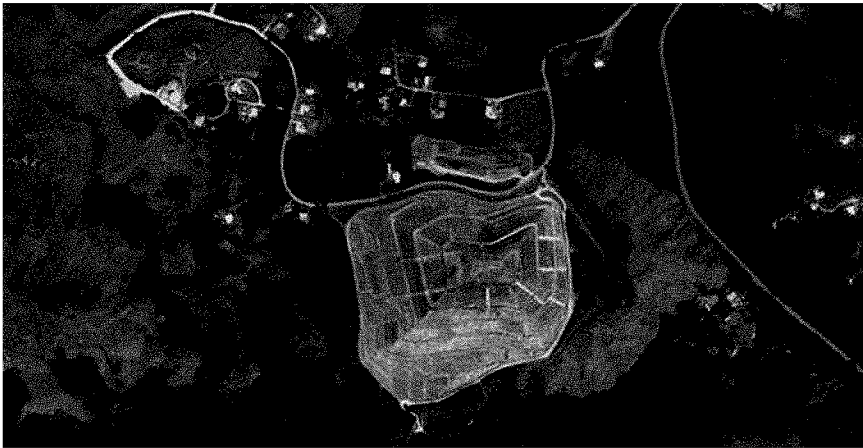


Figure 2: Aerial View of the Ordot Dump²⁶⁰

Guam has been under colonial rule since the 1500s when Ferdinand Magellan claimed it for Spain.²⁶¹ In the 1890s, the United States took control of the island after the Spanish–American War; after the United

²⁵⁷ *Territory of Guam v. United States*, 141 S. Ct. 1608, 1613, 1615 (rejecting the United States's argument that settlement of environmental liabilities under other laws would be enough).

²⁵⁸ *Id.* at 1611.

²⁵⁹ EPA, SUPERFUND RECORD OF DECISION: ORDOT LANDFILL, GU, EPA/ROD/R09-88/022 (Sep. 28, 1988) [hereinafter EPA, RECORD OF DECISION].

²⁶⁰ Pamela King & E.A. Crunden, *Military's Mess Sparks Guam Superfund Battle*, GREENWIRE (Apr. 23, 2021), <https://www.eenews.net/articles/militarys-mess-sparks-guam-superfund-battle> [<https://perma.cc/U2KT-6X99>].

²⁶¹ MITCHELL, *supra* note 42, at 176.

States established its presence, it instituted martial law.²⁶² From the early 1900s until World War II, the United States literally “treated Guam as a US Naval ship—the ‘USS Guam’—and maintained military rule until the passage of the Guam Organic Act in 1950.”²⁶³ In 1941, after the attack on Pearl Harbor, the Japanese military immediately overran and occupied Guam.²⁶⁴ In 1944, the United States engaged in a massive thirteen-day bombardment of the island and eventually reoccupied Guam.²⁶⁵

After Japan surrendered in 1945, the U.S. military retained approximately eighty-five percent of the land.²⁶⁶ As one Congressperson said, “We fought for them, we’ve got them, we should keep them.”²⁶⁷ Or, as one Chamoru stated, “If you can read and write, thank a teacher; if you can read and write in English, thank a veteran.”²⁶⁸ The Chamoru “gave up their [children] to military service so others around the world could have their own freedom.”²⁶⁹

Japan and the United States both engaged in undocumented, unregulated, and unfettered hazardous disposals during their respective occupations of the island during the Second World War.²⁷⁰ The Ordot Dump is a prime example of unchecked disposal practices; the dump was built by the U.S. Navy in the 1940s and used to deposit toxic military waste for decades.²⁷¹ The U.S. Navy and Guam (as well as other users) continued to utilize the site as a dump for military and municipal waste until,

²⁶² *Id.* at 177. In 1936, the U.S. Navy worked to deny Guam residents U.S. citizenship because of the island’s “racial problems” and its allegation that “these people” had not reached the level of development necessary for either personal independence or United States citizenship. *Id.*

²⁶³ *Gov’t of Guam v. United States*, 950 F.3d 104, 108 (D.C. Cir. 2020) (quoting ROBERT F. ROGERS, *DESTINY’S LANDFALL: A HISTORY OF GUAM* 126 (1995)), *rev’d sub nom.*, *Territory of Guam v. United States*, 141 S. Ct. 1608 (2021).

²⁶⁴ MITCHELL, *supra* note 42, at 177.

²⁶⁵ *Id.*

²⁶⁶ *Id.* at 178. After U.S. reoccupation, Guam became the “westernmost ammunition supply point on U.S. soil.” *Id.*

²⁶⁷ *Id.* (quoting DONALD F. MCHENRY, *MICRONESIA: TRUST BETRAYED: ALTRUISM VS SELF INTEREST IN AMERICAN FOREIGN POLICY* 66 (1975)).

²⁶⁸ Sarah A. Topol, *The America That Americans Forgot*, N.Y. TIMES MAG. (July 27, 2023), <https://www.nytimes.com/2023/07/07/magazine/guam-american-military.html> [<https://perma.cc/RJA5-2SZQ>].

²⁶⁹ *Id.*

²⁷⁰ EPA, RECORD OF DECISION, *supra* note 259.

²⁷¹ *Territory of Guam v. United States*, 141 S. Ct. 1608, 1611 (2021).

eventually, the site was characterized as a “280-foot mountain of trash.”²⁷² Nevertheless, it was not until the late twentieth century when the EPA became involved.²⁷³ The Ordot Dump was finally added to the NPL in 1983, and the EPA designated the Navy as a PRP for its cleanup.²⁷⁴ Yet, by the time the EPA finally listed the Ordot Dump, the Navy had relinquished site operations to Guam.²⁷⁵ Accordingly, the EPA ordered Guam to produce plans for the containment and disposal of waste at the dump as it posed a hazardous environmental threat.²⁷⁶

Guam failed to comply, and the EPA sued the island under the CWA.²⁷⁷ In 2004, Guam and the EPA entered a consent decree under the CWA that required Guam to close and cover the dump.²⁷⁸ Guam was also required to pay a civil penalty in addition to other remedial actions.²⁷⁹ If Guam fully complied with the consent decree, Guam would discharge the claims against it under the CWA.²⁸⁰

The landfill, which is unlined, did not close until 2011.²⁸¹ Guam began cleaning it up in 2013.²⁸² Then, in 2017, the government of Guam sued the United States under CERCLA.²⁸³ Guam argued that it was entitled to seek contribution from the United States for the cleanup costs incurred

²⁷² *Gov’t of Guam v. United States*, 825 F.3d 104, 109 (D.C. Cir. 2020) (quoting *United States v. Gov’t of Guam*, No. 02-00022, 2008 WL 216918, at *1 (D. Guam Jan. 24, 2008)), *rev’d sub nom.*, *Territory of Guam v. United States*, 141 S. Ct. 1608 (2021).

²⁷³ *Id.*

²⁷⁴ *Id.*

²⁷⁵ *Id.*

²⁷⁶ *Id.*

²⁷⁷ *Territory of Guam v. United States*, 141 S. Ct. 1608, 1611 (2021).

²⁷⁸ *Id.*

²⁷⁹ *Id.*

²⁸⁰ *Id.*

²⁸¹ *Gov’t of Guam*, 950 F.3d at 109. Prior to its closure, “The U.S. has said Guam ‘vastly expanded’ it and ‘failed to provide even rudimentary environmental safeguards.’ In 2002, the government sued Guam over pollution from the dump. Guam ultimately agreed in 2004 to close the dump and take steps to stop pollution from the dump, among other things.” *Supreme Court: Guam Can Pursue \$160M Dump Cleanup Lawsuit*, AP NEWS (May 24, 2021), <https://apnews.com/article/guam-lawsuits-supreme-courts-courts-government-and-politics-742e66b7ab622432d85ed07fdf9b6567> [<https://perma.cc/HRY8-UAVU>].

²⁸² Joint Appendix at JA-68, *Guam*, 141 S. Ct. 1608 (2021) (No. 20-382).

²⁸³ *Gov’t of Guam*, 950 F.3d at 109–10.

at the Ordot Dump.²⁸⁴ The estimated cleanup cost for the site was \$160 million.²⁸⁵



Figure 3: The Ordot Dump in 2021²⁸⁶

The United States argued, among other things, that Guam had waited too long to sue for contribution because its previous CWA settlement with the EPA had triggered CERCLA's statute of limitations and was therefore time-barred by the three-year time limit for contribution actions.²⁸⁷ The Supreme Court considered the provisions of CERCLA and

²⁸⁴ *Id.* In their initial complaint, Guam set forth two causes of action: a cost-recovery action under section 107(a) and a contribution action under section 113(f). *Id.*; see *supra* notes 239–48 (discussing the differences between these two causes of action). Guam survived dismissal of their complaint for failure to state a claim in the District Court for the District of Columbia, but the Court of Appeals for the District of Columbia Circuit reversed and remanded, holding that the contribution action was time-barred. *Gov't of Guam*, 950 F.3d at 110, 118. The territory of Guam then appealed to the Supreme Court. *Guam*, 141 S. Ct. at 1612.

²⁸⁵ Madeline Lyskawa, *Feds Agree to Cough Up \$48.9M for Guam Landfill Costs*, LAW360 (Sep. 27, 2023), <https://www.law360.com/articles/1725871> [<https://perma.cc/4WLC-86T4>]. In September 2023, “Guam secured approval of a \$48.9 million agreement with the federal government in D.C. federal court, partially resolving [the dispute.]” *Id.*

²⁸⁶ Steve Limtiaco, *Feds: Guam Missed Deadline for Military to Pay Dump Costs*, DAILY HERALD (Mar. 26, 2021), <https://www.columbiadailyherald.com/story/news/local/2021/03/26/federal-government-guam-missed-deadline-military-pay-ordot-dump-costs/7009265002/> [<https://perma.cc/EHB3-GD6Q>].

²⁸⁷ *Gov't of Guam*, 950 F.3d at 110. See generally 42 U.S.C. § 9613(g)(3)(B) (“No action for contribution for any response costs or damages may be commenced more than 3 years after . . . entry of a judicially approved settlement with respect to such costs or damages.”) The Court

the language of the statute in determining whether the United States was immune from contribution under CERCLA.²⁸⁸ The Court looked at section 113(f) in its “totality,” discussing the anchor provision, how people can insulate themselves from contribution, and the treatment of persons who are not a party to a settlement.²⁸⁹

The Court further discussed how statutes should be read as a whole—“an especially salient approach in this case given that CERCLA’s very title reinforces that it is a ‘Comprehensive’ Act.”²⁹⁰ According to the Court, the specific provision at issue in *Guam*—section 113(f)(3)(B)—“is best ‘understood only with reference’ to the CERCLA regime.”²⁹¹ The Court further explained that instead of requiring parties, courts, and others to determine the parameters of prior settlements, the best course of action is to “ask whether a settlement expressly discharged a CERCLA liability.”²⁹² After a comprehensive review of the statutory and regulatory framework, couched in rules of statutory construction, the Court held that the “most natural reading of § 113(f)(3)(B) is that a party may seek contribution under CERCLA only after settling a CERCLA-specific liability.”²⁹³

The unanimous decision of the Supreme Court in *Guam* has significant implications for the future application of CERCLA and for the relationship between the federal government, states, and territories. It answers a key question, but it leaves other related questions unanswered. The case importantly resolved the question of whether non-CERCLA settlements could trigger CERCLA’s statute of limitations and give rise to a contribution claim under that law.²⁹⁴ This question had previously split the circuits.²⁹⁵ Because Guam only settled the case pursuant to the CWA—and not CERCLA—the settlement did not include a right to contribution

rejected the United States’s argument that Guam’s claim was time barred because of the previous CWA settlement. *Gov’t of Guam*, 950 F.3d at 110.

²⁸⁸ *Guam*, 141 S. Ct. at 1612.

²⁸⁹ *Id.*

²⁹⁰ *Id.* at 1613.

²⁹¹ *Id.* at 1614 (quoting *United States v. Atl. Rsch. Corp.*, 551 U.S. 128, 135 (2007)) (citing *Sturgeon v. Frost*, 577 U.S. 424, 438 (2016)).

²⁹² *Id.*

²⁹³ *Id.* at 1615.

²⁹⁴ Lauren Daniel, *Guam v. US: US Supreme Court Upends Prevailing Trend in CERCLA Contribution Suits*, ARNOLD & PORTER (May 24, 2021), <https://www.arnoldporter.com/en/perspectives/blogs/environmental-edge/2021/05/guam-v-us> [<https://perma.cc/4WMT-V59S>].

²⁹⁵ *Id.*

under section 113(f)(3)(B).²⁹⁶ Therefore, it could not have triggered the three-year statute of limitations associated with that right.²⁹⁷ Moreover, because Guam never had a CERCLA contribution claim, it could still file a cost-recovery action pursuant to CERCLA section 107.²⁹⁸

Guam also answered important questions for the interpretation of CERCLA vis-à-vis the relationship between the federal government and its territories with regard to environmental cleanups. The availability of contribution actions under CERCLA means that states and territories may seek reimbursement from the federal government for cleanup costs, which can help to reduce the financial burden of these cleanups.²⁹⁹ Contribution actions can also ensure that the costs of environmental cleanups are distributed fairly among all parties who are potentially responsible for the sites.

In addition, *Guam* confirmed that the United States is not immune from liability or contribution actions under CERCLA, meaning that states and territories may seek reimbursement from the federal government for cleanup costs incurred at former military bases. This is an important development in the interpretation of CERCLA, as it clarifies the responsibilities of the federal government under the statute. In addition to determining the liability of the United States under CERCLA, the Supreme Court also considered the issue of contribution actions under the statute. Contribution actions under CERCLA allow parties who are potentially responsible for a hazardous waste site to seek reimbursement from other parties who are also potentially responsible for the site.

When considering implications for the broader legal landscape regarding environmental liability, the Court noted that the availability of contribution actions under CERCLA is an important means of distributing the costs of environmental cleanups fairly among PRPs. It confirmed the availability of contribution actions under CERCLA, which can provide a possible framework for resolving disputes between parties who are potentially responsible for hazardous waste sites. This can help ensure that

²⁹⁶ *Guam*, 141 S. Ct. at 1615 (“The most natural reading of § 113(f)(3)(B) is that a party may seek contribution under CERCLA only after settling a CERCLA-specific liability.”).

²⁹⁷ *See id.* at 1614 n.4, 1615.

²⁹⁸ *See* Robert Percival, *Is It Too Late for Guam to Sue the Navy to Pay for the Cleanup of Its Dumpsite?*, SCOTUSBLOG (Apr. 23, 2021), <https://www.scotusblog.com/2021/04/is-it-too-late-for-guam-to-sue-the-navy-to-pay-for-the-cleanup-of-its-dumpsite/> [<https://perma.cc/F5VC-YMLT>].

²⁹⁹ *See id.* (noting that two dozen states joined in filing an amicus brief out of concern that the United States would be able to avoid its liability for military site cleanups). The Court’s holding ensures that CERCLA settlements will trigger CERCLA liability. *See Guam*, 141 S. Ct. at 1615.

the parties responsible for the hazardous sites are held accountable; it can help ensure that environmental cleanup costs are distributed more efficiently, and sites are cleaned more expeditiously.

VII. QUESTIONS LEFT UNANSWERED BY *GUAM*

Although *Guam* resolved some long-standing CERCLA questions, it left several important questions unanswered. The Court recognized the difficulty in understanding CERCLA and determining appropriate liability. This was evident when the Court referred to the statute as a “reticulated statutory matrix of environmental duties and liabilities.”³⁰⁰ However, the Court must do more to untangle and demystify this convoluted statute.

When considering a contaminated site, one of the first questions is what the defendant’s cleanup share is in relation to the amount that is actually settled by the settling PRP. Because liability pursuant to section 113(f) is several, each party is liable only for its equitable share.³⁰¹ This may discourage settlement and may result in a settling PRP paying more than its fair share.³⁰² This can happen if a recalcitrant PRP waits until another has settled with the intention of arguing for a payment of an equitable share that leaves the settling PRP with a significant “orphan share” amount to cover.³⁰³ The settling PRP cannot be made whole unless it can successfully sue all the other PRPs involved at the site; therefore, the risk of being liable for the entire orphan share is on the settler.³⁰⁴ This is contrary to the previously described purpose of contribution and contribution protection.

Because the Court says that a CWA settlement does not trigger CERCLA’s right of contribution,³⁰⁵ a question arises revolving around contribution protection. Because a non-CERCLA environmental settlement does not create a right of contribution, does it follow that the same type of settlement does not grant a right to contribution protection

³⁰⁰ *Guam*, 141 S. Ct. at 1613.

³⁰¹ 42 U.S.C. § 9613(f)(1) (“In resolving contribution claims, the court may allocate response costs among liable parties using such equitable factors as the court determines are appropriate.”); *N.J. Dep’t. of Env’t Prot. v. Am. Thermoplastics Corp.*, 974 F.3d 486, 489 (3d Cir. 2020).

³⁰² See McCrory, *Who’s on First*, *supra* note 234, at 24.

³⁰³ *Id.* at 24; see also Kenneth K. Kilbert, *Neither Joint Nor Several: Orphan Shares and Private CERCLA Actions*, 41 ENV’T L. 1045, 1047 (2011) (defining “orphan share” as the portion of cleanup costs attributable to the insolvent, dead, or defunct parties).

³⁰⁴ Kilbert, *supra* note 303, at 1050.

³⁰⁵ *Guam*, 141 S. Ct. at 1615.

from a CERCLA case? That is, is it logical to assume that a settlement of a CWA case does not grant a right of contribution protection from a non-settling CERCLA PRP? This corollary issue easily could have been addressed in dicta in the *Guam* case.

Because a removal action is different from a remedial action in terms of time, manner, and even place of cleanup, a settlement granting a right of contribution for costs associated with the remedial action may not automatically grant a settling PRP a right to contribution from a third party for removal costs. Similarly, the Court did not address contribution liability for specific OU settlements. Many selected remedies are separated into OUs.³⁰⁶ Does a settlement on a single OU (or even multiple OUs) create a right to contribution for the settler and does that begin the tolling of the related statute of limitations? For example, if a party settles with the United States for surface soil cleanup, does it remain liable for surface water cleanups? This goes directly to the question of when the statute of limitations begins to run on the right of contribution as well. It also goes to the question of protection from lawsuits (including contribution lawsuits) after settlement.

Another question is if a judicially or administratively approved settlement resolves liability with the United States or a state for all or some of a response action or its costs. When does a PRP have a settlement that grants the right to contribution or contribution protection? Upon settlement, the question becomes, what matters are and are not addressed by the consent decree? For example, can a non-settler bring a successful action against a settling party for costs outside of the settlement agreement as these matters may not be directly addressed within the settlement agreement? Similarly, are signatories to a CERCLA settlement agreement protected from a subsequent RCRA action brought by the forum state (assuming the state is not a signatory to the settlement)? These questions will continue to plague PRPs seeking to settle their liability to the state and federal governments, determine their ability to sue other PRPs, and readily ascertain their right of protection from future liability at the site.

CONCLUSION

As demonstrated in the sections above, CERCLA serves a clear and necessary purpose but still requires additional explanation to better serve the communities impacted by hazardous waste contamination. When Congress amended CERCLA, it created the rights of contribution and

³⁰⁶ See 40 C.F.R. § 300.430(a)(1)(ii), (f)(2) (providing guidance for the use of operable units).

contribution protection for settling PRPs.³⁰⁷ However, almost four decades after the SARA amendments, neither Congress nor the courts have adequately explained the extent of these rights. Despite answering one of the most troubling questions associated with PRP liability in *Guam*, the Supreme Court has left too many unanswered questions regarding future cases. The SARA amendments were created in part to encourage early settlements by granting the right of contribution protection for settling PRPs.³⁰⁸ The consequences of CERCLA liability can be devastating to any PRP, presenting a compelling rationale for the need to clarify. This can help ensure the fair outcome of CERCLA cases in the future. *Guam* has helped solve one of the most basic questions associated with Superfund liability; it laid a good foundation, albeit extremely late, to begin addressing the shortcomings of CERCLA.

The next step in creating a uniform range of liability is for Congress to clarify the remaining issues by amending the statute to include language specifically granting the rights of contribution and contribution protection in the general instances previously discussed in Section V. Alternatively, if Congress does not intend to grant protection from contribution or the right of contribution against non-settling parties in these instances, that must be stated within CERCLA. Such a change could easily reduce claims, increase settlements, and save state and federal taxpayer dollars. Moreover, the change could drastically expedite cleanups, which in turn could improve public health in the communities most affected by multigenerational hazardous waste contamination. However, if Congress is too gridlocked to act upon the existential need to live in a clean and safe environment, the Court must act.

Considering the impacts that CERCLA can have within communities, a clear precedent must be set to expedite methods to alleviate environmental harms within affected communities. Reflecting upon Sections I.A. and I.B. regarding the intersection of public health and environmental justice impacts through CERCLA, *Guam* exemplifies a typical affected community residing within an overtaxed ecology. American citizens are subjected to decades of extreme health hazards without adequate resources or voice to address the issue. While the *Guam*

³⁰⁷ Superfund Amendments and Reauthorization Act of 1986, Pub. L. No. 99-499, § 113(f)(1)–(2), 100 Stat. 1613, 1647–48.

³⁰⁸ Timothy B. Atkeson et al., *An Annotated Legislative History of the Superfund Amendments and Reauthorization Act of 1986 (SARA)*, 16 ENV'T L. REP. NEWS & ANALYSIS 10363, 10373 (1986); see also Christopher D. Man, *The Constitutional Rights of Nonsettling Potentially Responsible Parties in the Allocation of CERCLA Liability*, 27 ENV'T L. 375, 376 (1997) (“Congress and the [EPA] have sought to minimize litigation over allocation issues by encouraging settlements.”).

case resulted in a win for the affected population, without further statutory clarification, community health is left in abeyance, left to ever-shifting political winds. Yet, this cannot be allowed. The weight of civilization upon the environment now ranks the same as any other global force; humanity is now another vicissitude of a dynamic and volatile planetary system.³⁰⁹ The complex nature of environmental risk management requires the firm resolution of long-identified statutory issues, which will accelerate intervention and response. An unambiguous interpretation of CERCLA's language plays a fundamental role in protecting communities, including those most at risk.

The Court must establish a uniform scale of liability within CERCLA to help fulfill its critical role of identifying and mitigating hazardous exposures while holding those responsible accountable. This will help ensure that the true polluters actually pay—and pay more expeditiously. Through CERCLA, the Court can help us move toward a society where we are all part of one interrelated, perfect, cohesive, and effective union—one that can effectively address environmental justice, health, and liability issues both inside and outside our continental borders. The Court can promote an environmental regulatory interpretation that treats us all as part of one indivisible nation. Following *Guam*, the Court can continue to help solve the CERCLA riddle through continuing to articulate a coherent scheme of liability that PRPs (and the public) can more readily understand. Moreover, the Court can continue to interpret the statute in a way that reinstates its original purpose, to protect all of our citizens by expeditiously cleaning the worst places within the United States, those places still roiling with hazardous pollutants.

³⁰⁹ *Quotations About the Environment*, EPA (June 6, 2025), <https://www.epa.gov/history/quotations-about-environment> [<https://perma.cc/7DQN-RAWS>] (quoting Dianne Dumanoski, *Rethinking Environmentalism* (Dec. 13, 1998)).