

Regulation of Hazardous Air Pollutants Under the Clean Air Act: A Primer

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Regulation of Hazardous Air Pollutants Under the Clean Air Act: A Primer

Under provisions in the Clean Air Act (CAA), the U.S. Environmental Protection Agency (EPA) regulates two main classes of air pollutants: criteria air pollutants and hazardous air pollutants (HAPs). HAPs, which are “air pollutants that can cause serious illnesses, such as cancer, or death,” are regulated under Section 112 of the CAA. Within Section 112 there are two classes of HAPs: (1) those that are emitted regularly through ordinary activities such as manufacturing or the provision of goods and services, and (2) those that, in case of accidental release, may cause serious injury or death. Each of these classes has its own regulatory framework. HAPs emitted in the course of ordinary activities are regulated through the setting of National Emission Standards for Hazardous Air Pollutants (NESHAPs).

Regulation of HAPs emissions has a three-phase framework that includes (1) HAPs identification, (2) HAPs regulation, and (3) review of HAPs emissions standards. In the identification phase, EPA identifies and lists HAPs and their sources. The CAA includes mechanisms for both listing and delisting HAPs and their sources. In the regulation phase, EPA sets standards to regulate the emissions of the identified HAPs from the identified sources. These standards are based on technological capabilities for HAPs emissions control. The standards distinguish between *major sources* of HAPs (those that emit at or above the threshold of 10 tons per year of a HAP or 25 tons per year of any combination of HAPs) and *area sources* (which emit less than the threshold amounts of HAPs). Major sources are subject to regulation based on the Maximum Achievable Control Technology (MACT) standard. Area sources are generally subject to regulation based on a less stringent Generally Available Control Technology (GACT) standard. MACT and GACT are technological standards informed by the availability and efficacy of emissions control technologies. In developing the standards, EPA considers cost, health, and environmental effects. In the review phase, the standards are examined to determine their efficacy at controlling emissions of HAPs. For major sources this includes a technology-based review to determine if emissions control is adequate, followed by a health-based determination of residual risk, if necessary. Area sources regulated under the GACT standard are subject to technology-based review but not residual risk review.

Section 112’s prevention of accidental release provisions are intended to prevent or mitigate the accidental and potentially catastrophic release of hazardous substances that may be lethal or seriously adverse to human health or the environment. EPA addresses the prevention of catastrophic releases of hazardous substances through a three-part program that includes (1) listing regulated substances and threshold quantities of the more dangerous hazardous substances; (2) requiring source facilities to create and register a risk management plan (RMP) that includes a hazard assessment, a program for preventing accidental releases, and a response program in the event a release occurs; and (3) under a general duty clause, requiring owners of sources to identify hazards, maintain a safe facility, and prevent or minimize accidental releases.

In the 119th Congress, Members have taken action to modify or oversee EPA’s HAPs regulations under Section 112, including the regulatory standards that apply to different source types and the associated review processes. For example, in 2024, EPA promulgated a rule that a major source of HAPs subject to CAA Section 112(c)(6) could not transition to regulation under the GACT standard even if its HAPs emissions fell below the major source emissions threshold. In 2025 Congress passed legislation repealing this rule. Members have also introduced legislation to address EPA’s setting of NESHAPs for HAPs sources. In 2026 EPA repealed the Mercury and Air Toxics Standards (MATS) NESHAP rule. In 2026, Congress considered a resolution under the Congressional Review Act (S.J.Res. 188) disapproving the repeal. The motion to proceed with consideration of S.J.Res. 188 was rejected by the Senate. In the 119th Congress Members have also introduced legislation to make changes to Section 112 of the CAA, including the addition of substances to the list of regulated HAPs, the removal of some exemptions for oil and gas sources of HAPs, and the removal of the possibility for citizen suits under Section 112 of the CAA.

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Introduction

Hazardous air pollutants (HAPs) are toxic pollutants that can cause serious health effects such as cancer and birth defects, as well as harmful environmental effects.¹ The effects of HAPs are generally localized, with their highest concentrations occurring near their source.² In 1970, Congress recognized HAPs as a distinct class of air pollutants and, in order to protect public health and welfare, enacted legislation to regulate them as such in Section 112 of the Clean Air Act (CAA). Congress amended the CAA in 1990, making changes to the regulatory framework for HAPs. Specifically, these changes were to facilitate the control of HAPs emissions by identifying HAPs and sources of HAPs, setting emissions standards for HAPs, and reviewing standards using technology-based and health-risk-based criteria. In addition to these changes, Congress sought to prevent the catastrophic release of the most dangerous, and potentially lethal, hazardous substances by the addition of a specific regulatory framework for this purpose.

Since 1990, the U.S. Environmental Protection Agency (EPA) has changed the lists of HAPs and their source categories, including adding some pollutants and source categories and removing others, and has changed their regulation.³ In addition to the changes EPA has made, Congress has taken an active role in the evaluation of Section 112 and the changes EPA has made to the way the agency regulates HAPs. Congress has taken an interest in recent EPA rulemaking related to the regulatory impact of HAPs standards. Some Members of Congress introduced challenges to EPA's rulemaking under the Congressional Review Act (CRA).⁴

This report provides an overview of CAA Section 112. It provides a chronology of the development of Section 112, including the ways in which the 1990 CAA amendments changed the approach and structure of HAPs regulation. The report next describes the regulation of HAPs emissions from stationary sources that occur in the course of normal activities, such as manufacturing or providing goods and services. The report also describes the distinct regulatory framework that aims to prevent the catastrophic, accidental release of highly dangerous and potentially lethal hazardous substances. The report concludes with a discussion of congressional action in the 119th Congress regarding the regulation of HAPs. These actions include the introduction of legislation to address EPA's rulemaking on the classification of HAPs sources within the regulatory framework and the setting of standards for source categories of HAPs. The concluding section also provides information on legislation Members have introduced to change some CAA provisions governing the regulation of HAPs.

Historical Background

The CAA designated two categories of air pollutants: criteria pollutants and hazardous air pollutants.⁵ Provisions to regulate criteria air pollutants are set out in Section 109 of the CAA,

¹ U.S. Environmental Protection Agency (EPA), "Managing Air Quality—Air Pollutant Types," <https://www.epa.gov/air-quality-management-process/managing-air-quality-air-pollutant-types>.

² Iowa Department of Natural Resources, "Air Pollutants," <https://www.iowadnr.gov/environmental-protection/air-quality/air-pollutants>.

³ Categories of industrial and other sources that emit hazardous air pollutants (HAPs) are referred to as *source categories*. See EPA, "Regulatory and Guidance Information by Topic: Air," <https://www.epa.gov/regulatory-information-topic/regulatory-and-guidance-information-topic-air>.

⁴ 5 U.S.C. Ch. 8: Congressional Review of Agency Rulemaking.

⁵ Leslie S. Ritts and Ben Snowden, "The Regulation of Hazardous Air Pollutants," in *The Clean Air Act Handbook*, 4th edition, ed. Julie R. Domike and Alec C. Zaccaroli (American Bar Association, 2016), p. 249 (hereinafter Ritts and Snowden, *Clean Air Act Handbook*, 2016).

which requires EPA to establish National Ambient Air Quality Standards (NAAQS) for air pollutants that endanger public health or welfare.⁶ Provisions to regulate HAPs are set out in Section 112 of the CAA.⁷ CAA Section 112(a)(6) defines a *hazardous air pollutant* as any air pollutant listed in CAA Section 112(b). A 1990 House report states that HAPs are “air pollutants that can cause serious illnesses, such as cancer, or death.”⁸ HAPs are distinguished from criteria air pollutants as being “associated with more serious health impacts, such as cancer, neurological disorders, and reproductive dysfunctions.”⁹

For each HAP, the 1970 amendments to the CAA required EPA to establish health-based National Emission Standards for Hazardous Air Pollutants (NESHAPs) that provide “an ample margin of safety to protect public health.”¹⁰ NESHAPs are standards for stationary sources that are intended to control emissions of HAPs and to protect the public from pollutants that EPA has stated “are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects.”¹¹ From the passage of the 1970 CAA amendments until the 1990 CAA amendments, EPA would first list a substance as a HAP and then would set a health-based standard for the substance. Using this health-based standard, from 1970 through 1990, EPA listed and set standards for eight HAPs: beryllium, mercury, vinyl chloride, asbestos, benzene, radionuclides, arsenic, and coke oven emissions.¹² EPA had finalized standards for seven of these listed HAPs—all those other than coke oven emissions—by 1990 when the CAA was amended. EPA finalized standards for coke oven emissions after 1990.¹³

The health-based standards of the 1970 CAA amendments required EPA to perform a risk assessment in order to set emissions control standards for a HAP.¹⁴ Such a risk assessment was required to determine an emissions limit that would “further the protection of public health by minimizing the health risks.”¹⁵ From 1970 until the promulgation of the 1990 amendments, this risk assessment process included setting limits for so-called nonthreshold carcinogens—those

⁶ 42 U.S.C. §7409. EPA has promulgated National Ambient Air Quality Standards (NAAQS) for six criteria air pollutants or groups of pollutants: sulfur dioxide (SO₂), particulate matter (PM), nitrogen dioxide (NO₂), carbon monoxide (CO), ozone (O₃), and lead (Pb). See also EPA, “Criteria Air Pollutants,” <https://www.epa.gov/criteria-air-pollutants>.

⁷ 42 U.S.C. §7412.

⁸ U.S. Congress, House Committee on Energy and Commerce, *Clean Air Act Amendments of 1990*, report on H.R. 3030 including additional, supplemental, and dissenting views, 101st Cong., 2nd sess., H. Rept. 101-490, part 1, May 17, 1990, p. 315. See also Robert J. Martineau Jr. and Ben Snowden, “Hazardous Air Pollutants,” in *The Clean Air Act Handbook*, 3rd edition, ed. Julie R. Domike and Alec C. Zaccaroli (American Bar Association, 2011), pp. 231-232 (hereinafter Martineau and Snowden, *Clean Air Act Handbook*, 2011).

⁹ 42 U.S.C. §7412(a). See also House Committee on Energy and Commerce, *Clean Air Act Amendments of 1990*, report on H.R. 3030, H. Rept. 101-490, May 17, 1990, p. 315.

¹⁰ See also P.L. 91-604, §112(b)(1)(B).

¹¹ EPA, “National Emission Standards for Hazardous Air Pollutants Compliance Monitoring,” <https://www.epa.gov/compliance/national-emission-standards-hazardous-air-pollutants-compliance-monitoring>. See also House Committee on Energy and Commerce, *Clean Air Act Amendments of 1990*, report on H.R. 3030, H. Rept. 101-490, May 17, 1990, p. 315.

¹² Martineau and Snowden, *Clean Air Act Handbook*, 2011, p. 232.

¹³ Martineau and Snowden, *Clean Air Act Handbook*, 2011, p. 232. See also 40 C.F.R. Part 61. National Emissions Standards for Hazardous Air Pollutants.

¹⁴ Martineau and Snowden, *Clean Air Act Handbook*, 2011, p. 232.

¹⁵ EPA, “National Emissions Standards for Hazardous Air Pollutants: Proposed Standard for Vinyl Chloride,” 40 *Federal Register* 59534, December 24, 1975.

carcinogens for which EPA could not establish an “atmospheric concentration which poses absolutely no public health risk.”¹⁶

Some commentators have stated that Congress regarded the pace of listing and regulating HAPs under the framework of the 1970 amendments as excessively slow and as a failure to implement an air toxics program.¹⁷ In 1989, a report by the Senate Environment and Public Works Committee (EPW) noted the slow pace of the air toxics program under Section 112 in listing HAPs under the process EPA was following.¹⁸ The EPW report proposed restructuring the regulation of HAPs under Section 112 to be based on source categories of air pollutants rather than the pollutants themselves.¹⁹ The restructuring of Section 112 after this report changed the basis of regulation from pollutants to source categories of pollutants. Health-based standards were still preserved; as the report stated, “Authority to issue health-based standards is preserved in modified form to be used for especially serious pollution problems.”²⁰ In the 1990 amendments to the CAA, Congress restructured Section 112 by including an initial list of 189 HAPs, as well as a definition and a regulatory framework for stationary sources of HAPs. In addition to this regulatory restructuring, these amendments also contained provisions regarding the accidental release of hazardous substances.²¹

In the 1990 amendments Congress directed EPA to list major sources and area sources of these 189 HAPs and to regulate emissions of these HAPs from these sources by setting NESHAPs.²² *Major sources* were defined as those that emit HAPs above a threshold level, while sources of HAPs that emit below this level were defined as *area sources*. Detailed descriptions of major sources and area sources appear later in the “Listing of Source Categories” section of this report.²³

Hazardous Air Pollutants: Regulatory Framework

Overview of the Regulatory Framework

As part of its standard-setting process for developing NESHAPs, EPA includes cost, health, environmental, and energy considerations.²⁴ In assessing the costs of controlling HAPs, EPA estimates the cost of pollution control equipment, labor, monitoring, recordkeeping, and reporting.²⁵ In addition to assessing these costs, the EPA guidance documents also require the

¹⁶ Ritts and Snowden, *Clean Air Act Handbook*, 2016, p. 251. See also 40 *Federal Register* 59534, December 24, 1975.

¹⁷ Ritts and Snowden, *Clean Air Act Handbook*, 2016, p. 252. See also Robert J. Martineau Jr., “Development of Emissions Standards for Hazardous Air Pollutants,” in *The Clean Air Act Handbook*, ed. Robert J. Martineau Jr. and David P. Novello (American Bar Association, 1998), p. 198.

¹⁸ U.S. Congress, Senate Committee on Environment and Public Works, *Clean Air Act Amendments of 1989*, report to accompany S. 1630, 101st Cong., 1st sess., S.Rept. 101-228, December 20, 1989, pp. 131-132.

¹⁹ Senate Committee on Environment and Public Works, *Clean Air Act Amendments of 1989*, S.Rept. 101-228, p. 133.

²⁰ Senate Committee on Environment and Public Works, *Clean Air Act Amendments of 1989*, S.Rept. 101-228, p. 133.

²¹ 42 U.S.C. §7412(r).

²² Clean Air Act (CAA) §112(b)(1). See also Ritts and Snowden, *Clean Air Act Handbook*, 2016, p. 254.

²³ CAA §112(a)(1)-(2).

²⁴ CAA §112(d)(2): “Taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements.” See also CAA §112(f)(2): “Promulgate standards for such category or subcategory if promulgation of such standards is required in order to provide an ample margin of safety to protect public health.”

²⁵ John L. Sorrels and Thomas G. Walton, “Chapter 2—Cost Estimation: Concepts and Methodology,” in *Economic* (continued...)

agency to analyze impacts on consumers, small businesses, government entities (including administrative costs and savings), and international trade, as well as energy and employment effects.²⁶

In assessing the health and environmental effects of HAPs, EPA takes into account the increased dangers to human health, including cancer, neurological effects, reproductive effects, and other health problems.²⁷ In addition, EPA takes into account the potential for environmental dangers to plants and animals from HAPs, such as HAPs that are ingested and concentrated through the food chain.²⁸ EPA also takes into account the energy requirements of the pollution control devices and emissions from the electricity generation for meeting their energy needs.²⁹

Under the amended regulatory structure for limiting the risks of HAPs, EPA distinguishes between major sources and area sources in the standard-setting development of NESHAPs.³⁰ For major sources of HAPs, the NESHAPs include both cost and health assessments.³¹ As an example of the consideration of health and cost effects, for the major source NESHAP for ferroalloys production, EPA considered “whether the Ferroalloys Production NESHAP provides an ample margin of safety to protect public health and whether more stringent standards are necessary to prevent an adverse environmental effect, taking into consideration costs, energy, safety, and other relevant factors.”³² For area sources of HAPs, the NESHAPs include cost assessments. As some commentators have noted, “In setting GACT [Generally Available Control Technology] standards for area sources EPA can consider costs and technical feasibility.”³³ As an example of area source cost analysis, the Clay Ceramics Manufacturing, Glass Manufacturing, and Secondary Nonferrous Metals Processing area source NESHAP included estimates of capital costs and

and Cost Analysis for Air Pollution Regulations, EPA, 2017, p. 8, <https://www.epa.gov/economic-and-cost-analysis-air-pollution-regulations/chapter-2-cost-estimation-concepts-and>. See also Larry Sorrels, *Regulatory Impact Analysis for the Final Reclassification of Major Sources as Area Sources Under Section 112 of the Clean Air Act*, EPA, EPA-452/R-20-005, 2020, p. 9. See also EPA, “Guidelines for Preparing Economic Analyses—Third Edition,” EPA-240-R-24-001, 2024.

²⁶ EPA uses a variety of methods, models, and tools to estimate economic impacts. See EPA, “Guidelines for Preparing Economic Analyses—Third Edition,” EPA-240-R-24-001, 2024. In this source, p. 1-6 references industry sectors, small businesses, state or local governments, consumers, and workers; p. 8-31 references international trade; p. 5-10 references energy prices; and p. 8-18 references employment effects. See also EPA, “Economic and Cost Analysis for Air Pollution Regulations,” <https://www.epa.gov/economic-and-cost-analysis-air-pollution-regulations>.

²⁷ CAA §112(b)(2): “Substances which are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, neurotoxic, which cause reproductive dysfunction, or which are acutely or chronically toxic.”

²⁸ CAA §112(b)(2): “Adverse environmental effects whether through ambient concentrations, bioaccumulation, deposition, or otherwise.” See also EPA, “Health and Environmental Effects of Hazardous Air Pollutants,” <https://www.epa.gov/haps/health-and-environmental-effects-hazardous-air-pollutants>.

²⁹ EPA, “National Emission Standards for Hazardous Air Pollutants: Lime Manufacturing Plants Technology Review,” 89 *Federal Register* 57738, 57746, July 16, 2024, <https://www.govinfo.gov/content/pkg/FR-2024-07-16/pdf/2024-14692.pdf>: “These secondary impacts typically include the energy needed to power the control devices, solid waste and wastewater generated from operation of the control devices, and air emissions that result from the generation of electricity used to operate the control devices.”

³⁰ Ritts and Snowden, *Clean Air Act Handbook*, 2016, pp. 257-258.

³¹ 40 C.F.R. §63.41.

³² EPA, “National Emissions Standards for Hazardous Air Pollutants: Ferroalloys Production,” 80 *Federal Register* 37366, 37372, June 30, 2015, <https://www.govinfo.gov/content/pkg/FR-2015-06-30/pdf/2015-15038.pdf>.

³³ Roy S. Belden and Angela R. Morrison, “Chapter 8: Control of Hazardous Air Pollutants,” in *Clean Air Act Essentials*, 3rd edition (American Bar Association, 2021), p. 172 (hereinafter Belden and Morrison, *Clean Air Act Essentials*, 2021). Generally Available Control Technology is described in the “Generally Achievable Control Technology (GACT) Standards” section of this report.

annualized costs that included “costs of the control and monitoring equipment, operation and maintenance expenses, performance testing, and recordkeeping costs.”³⁴

Since the 1990 amendments to the CAA, EPA has taken action to regulate HAPs under the amended regulatory structure. EPA has revised the list of HAPs by removing four substances from the list and by adding one substance.³⁵ In addition to modifying the list of HAPs, EPA has issued final NESHAPS for over 230 source categories of HAPs, including chemical plants, petroleum refineries, aerospace manufacturers, and steel mills.³⁶ EPA has changed the lists of source categories—for example, adding marine loading operations and removing petroleum dry cleaners.³⁷

Phases of the Regulatory Framework

There are three phases to the regulatory framework for limiting emissions of HAPs from stationary sources: identification, regulation, and review.³⁸ In the identification phase, EPA identifies and lists HAPs and the major sources and area sources that emit these listed HAPs. In the regulation phase, EPA sets control standards to regulate the emissions of the listed HAPs from the listed sources. In the review phase, EPA subjects major source standards to an initial technology and residual health risk review to determine if the standards are adequate for controlling emissions of HAPs to protect public health and the environment. Subsequent reviews do not include the health-based residual risk assessment. For area sources, all reviews are technology-based.

Identification

The identification phase of the regulatory framework involves listing HAPs and listing source categories that emit those HAPs.

Listing of HAPs

The first main part of the identification phase is listing HAPs. As part of the 1990 amendments to the CAA, Congress included an initial list of 189 HAPs in statute.³⁹ The list included pollutants believed to be harmful to public health or the environment, those “air pollutants that can cause serious illnesses, ... or death,”⁴⁰ and as noted earlier, those “often associated with more serious

³⁴ EPA, “National Emission Standards for Hazardous Air Pollutants for Area Sources: Clay Ceramics Manufacturing, Glass Manufacturing, and Secondary Nonferrous Metals Processing,” 72 *Federal Register* 73180, 73194, December 26, 2007, <https://www.govinfo.gov/content/pkg/FR-2007-12-26/pdf/E7-24720.pdf>. See also EPA, “Clay Ceramics Manufacturing Area Sources: National Emission Standards for Hazardous Air Pollutants (NESHAP)—Rule History: 12/26/2007 Final Rule,” <https://www.epa.gov/stationary-sources-air-pollution/clay-ceramics-manufacturing-area-sources-national-emission>.

³⁵ EPA, “Amendments to the List of Hazardous Air Pollutants (HAP) of Section 112(b) of the Clean Air Act (CAA),” <https://www.epa.gov/haps/amendments-list-hazardous-air-pollutants-hap-section-112b-clean-air-act-caa>.

³⁶ EPA, “National Emission Standards for Hazardous Air Pollutants (NESHAP),” <https://www.epa.gov/stationary-sources-air-pollution/national-emission-standards-hazardous-air-pollutants-neshap-8>.

³⁷ Ritts and Snowden, *Clean Air Act Handbook*, 2016, p. 263.

³⁸ Air Knowledge: A Partnership Program of U.S. EPA, “TOXC102-CI: Regulation of Hazardous Air Pollutants (HAPs) from Stationary Sources,” https://airknowledge.gov/ILT/TOXC102/Current/CI/01TOXC102_CI_Course_PowerPoint.pdf (hereinafter Air Knowledge EPA, “TOXC102”).

³⁹ CAA § 112(b)(1). See also Belden and Morrison, *Clean Air Act Essentials*, 2021, p. 160.

⁴⁰ House Committee on Energy and Commerce, *Clean Air Act Amendments of 1990*, report on H.R. 3030, H. Rept. 101-490, May 17, 1990, p. 315.

health impacts, such as cancer, neurological disorders, and reproductive dysfunctions.”⁴¹ The listed HAPs have a variety of chemical and physical characteristics. Some are gases under ambient conditions while others occur as vapors or mineral fibers. The list of HAPs includes both individual chemical compounds (such as acetaldehyde) and groups of chemical compounds (such as arsenic compounds).⁴² In addition to the variety of chemical and physical characteristics, listed HAPs are associated with a multitude of industrial processes that include fiber production, pharmaceutical production, and the production of organic and inorganic chemicals, among others.⁴³

The CAA includes provisions for adding or removing pollutants from the list through a rulemaking process. This process is triggered by a periodic review of the list by the EPA Administrator.⁴⁴ The Administrator may add pollutants that

present, or may present, through inhalation or other routes of exposure, a threat of adverse human health effects (including, but not limited to, substances which are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, neurotoxic, which cause reproductive dysfunction, or which are acutely or chronically toxic) or adverse environmental effects whether through ambient concentrations, bioaccumulation, deposition, or otherwise.⁴⁵

The Administrator may remove a pollutant from the list if it is determined that “there is adequate data on the health and environmental effects of the substance to determine that emissions, ambient concentrations, bioaccumulation or deposition of the substance may not reasonably be anticipated to cause any adverse effects to the human health or adverse environmental effects.”⁴⁶ Modifications to the list, either additions or deletions, may occur through a determination by the EPA Administrator, and alternatively, any person may petition the EPA Administrator to modify the list.⁴⁷

Since 1990, EPA has made five modifications to the list. Specifically, EPA delisted four substances and added one substance.⁴⁸ The substances that have been delisted since 1990 are caprolactam (1996), surfactant alcohol ethoxylates and their derivatives (2000), ethylene glycol monobutyl ether (2004), and methyl ethyl ketone (2005).⁴⁹ One substance, 1-bromopropane, was added in 2022.⁵⁰

⁴¹ House Committee on Energy and Commerce, *Clean Air Act Amendments of 1990*, report on H.R. 3030, H. Rept. 101-490, May 17, 1990, p. 315. See also Martineau and Snowden, *Clean Air Act Handbook*, 2011, p. 236.

⁴² 42 U.S.C. §7412(b)(1).

⁴³ EPA, “Initial List of Categories of Sources Under Section 112(c)(1) of the Clean Air Act Amendments of 1990,” 57 *Federal Register* 31576, 31592, July 16, 1992, https://archives.federalregister.gov/issue_slice/1992/7/16/31574-31611.pdf.

⁴⁴ 42 U.S.C. §7412(b)(2).

⁴⁵ 42 U.S.C. §7412(b)(2).

⁴⁶ 42 U.S.C. §7412(b)(3)(C).

⁴⁷ 42 U.S.C. §7412(b)(3).

⁴⁸ EPA, “Amendments to the List of Hazardous Air Pollutants (HAP) of Section 112(b) of the Clean Air Act (CAA),” <https://www.epa.gov/haps/amendments-list-hazardous-air-pollutants-hap-section-112b-clean-air-act-caa> (hereinafter EPA, “Amendments to the List of HAPs”).

⁴⁹ EPA, “Amendments to the List of HAPs.”

⁵⁰ EPA, “Amendments to the List of HAPs.”

Listing of Source Categories

The second main part of the identification phase is listing stationary sources of these HAPs and classifying them as major sources and area sources.⁵¹ As noted above, individual facilities that emit these listed HAPs are classified as either major sources or as area sources for regulation based on their level of HAPs emissions.⁵² *Major sources* are those that, per year, emit or have the potential to emit 10 tons or more of any HAP and 25 tons or more of a combination of HAPs.⁵³ *Area sources* are those that emit HAPs below the threshold level defined for major sources.⁵⁴ EPA establishes different NESHAPs for major sources and for area sources.

Sources that typically have emissions at or above the threshold level, and can therefore be considered major sources, include petroleum refineries, hazardous waste combustors, and integrated iron and steel manufacturing facilities.⁵⁵ Examples of sources that typically have emissions below the threshold level, and can therefore be considered area sources, include glass manufacturing plants, paints and allied products manufacturing plants, and gasoline dispensing facilities.⁵⁶ Some source categories, such as boilers, have both major source and area source standards.⁵⁷ EPA is required to list all source categories of major sources that emit HAPs listed in Section 112(b).⁵⁸ EPA is required to list all categories of area sources “which the Administrator finds present a threat of adverse effects to human health or the environment (by such sources individually or in the aggregate) warranting regulation under this section.”⁵⁹ EPA used a variety of emissions data, including “reports, studies, memoranda and other emissions data sources,” to identify sources of listed HAPs that were then added to the list of categories.⁶⁰

In addition to identifying major source categories and area source categories, EPA has responsibilities for addressing hazardous air pollution in urban areas. Specifically, EPA must list “sufficient categories or subcategories of area sources to ensure that area sources representing 90 percent of the area source emissions of the 30 hazardous air pollutants that present the greatest threat to public health in the largest number of urban areas are subject to regulation under this section.”⁶¹ To meet this listing requirement, EPA identified a subset of 30 HAPs from area sources

⁵¹ 42 U.S.C. §§7412(a)(1), 7412(a)(2), and 7412(d)(1). See also U.S. Department of Energy, “National Emission Standards for Hazardous Air Pollutants (NESHAP) Compliance Monitoring,” <https://www.energy.gov/ehss/articles/national-emission-standards-hazardous-air-pollutants-neshap-compliance-monitoring>. Listed HAPs are those listed in 42 U.S.C. §7412(b).

⁵² 42 U.S.C. §§7412(a)(1) and 7412(a)(2).

⁵³ 42 U.S.C. §7412(a)(1).

⁵⁴ 42 U.S.C. §7412(a)(2). See also 42 U.S.C. §7412(k)(1-3).

⁵⁵ EPA, “National Emission Standards for Hazardous Air Pollutants (NESHAP).”

⁵⁶ EPA, “National Emission Standards for Hazardous Air Pollutants (NESHAP).”

⁵⁷ EPA, “Industrial, Commercial, and Institutional Boilers and Process Heaters: National Emission Standards for Hazardous Air Pollutants (NESHAP) for Major Sources,” <https://www.epa.gov/stationary-sources-air-pollution/industrial-commercial-and-institutional-boilers-and-process-0>. See also EPA, “Industrial, Commercial, and Institutional Area Source Boilers: National Emission Standards for Hazardous Air Pollutants (NESHAP),” <https://www.epa.gov/stationary-sources-air-pollution/industrial-commercial-and-institutional-area-source-boilers>.

⁵⁸ 42 U.S.C. §7412(c). EPA is required to list sources that emit one or more of the HAPs included in the CAA in Section 112(b). EPA does not use the Standard Industrial Code (SIC) system to identify categories of emissions sources; sources are instead identified by their subpart identified in the *Code of Federal Regulations*. For example, Iron and Steel Foundries (major sources) have the identifier 40 C.F.R. §63 Subpart EEEEE. See EPA, “National Emission Standards for Hazardous Air Pollutants (NESHAP).”

⁵⁹ 42 U.S.C. §7412(c)(3).

⁶⁰ EPA, “Documentation for Developing the Initial Source Category List,” EPA-450/3-91-030, 1992, p. 2-2.

⁶¹ 42 U.S.C. §7412(c)(3). See also EPA, “Urban Air Toxic Pollutants,” <https://www.epa.gov/haps/urban-air-toxic-pollutants>; and EPA, “Area Sources of Urban Air Toxics,” <https://www.epa.gov/haps/area-sources-urban-air-toxics>.

that posed the greatest threat to public health in urban areas from the HAPs listed under Section 112(b)(1).⁶² In evaluating the relative hazards of the HAPs EPA considered the “physical properties, sources of exposure, [and] health hazards”⁶³ of the HAPs and estimated emissions to develop this list.⁶⁴

Under Section 112(c)(6), EPA is required to list source categories and subcategories of seven “specific persistent and bioaccumulative pollutants.”⁶⁵ These pollutants—alkylated lead compounds, polycyclic organic matter, hexachlorobenzene, mercury, polychlorinated biphenyls, 2,3,7,8-tetrachlorodibenzofurans, and 2,3,7,8-tetrachlorodibenzo-p-dioxin—are specified in statute. EPA has stated that these specific pollutants have been identified for their persistence in the environment and their tendency to bioaccumulate.⁶⁶ For these substances EPA is required to “list categories and subcategories of sources assuring that sources accounting for not less than 90 per centum of the aggregate emissions of each such pollutant are subject to standards under subsection (d)(2) or (d)(4).”⁶⁷

Major source and area source categories and subcategories can be added to or deleted from the list of HAPs emissions sources.⁶⁸ The statute does not define differences between categories and subcategories, but EPA may consider “whether there were differences in processes, sizes, or other factors affecting emissions and control technologies that would warrant subcategorization.”⁶⁹ Under the 1990 CAA amendments, the EPA Administrator can add categories and subcategories to the list at any time using the same criteria regarding emissions of HAPs used in the formation of the initial list.⁷⁰ These are the criteria used in listing major and area sources stated in Sections 112(c)(1) and 112(c)(3). As an example of listing, marine loading operations were added as a major source category in 1993.⁷¹ If a source category is listed due to emissions of a unique chemical substance that can be shown not to “reasonably be anticipated to cause any adverse effects to the human health or adverse environmental effects,” the EPA Administrator can delete the source category.⁷² In the case of a cancer risk, the source category can be delisted if the lifetime risk from emissions from this category is 1 in 1 million or less.⁷³ In the case of other, noncancer health and environmental risks where no source emissions in the category exceed a level needed to protect public health and the environment, the source category can be delisted.⁷⁴ Deletions can be made by the EPA Administrator based on the Administrator’s own decision or

⁶² 42 U.S.C. §7412(c)(3)(i-ii). See also EPA, *National Air Toxics Program: The Integrated Urban Strategy Report to Congress*, EPA-453/R-99-007, 2000, p. 3-1 (hereinafter EPA, *Urban Strategy Report*). See also EPA, “About Urban Air Toxics,” <https://www.epa.gov/haps/about-urban-air-toxics>.

⁶³ EPA, *Urban Strategy Report*, p. 3-1.

⁶⁴ EPA, *Urban Strategy Report*, p. 3-1.

⁶⁵ EPA, “Review of Final Rule Reclassification of Major Sources as Area Sources Under Section 112 of the Clean Air Act,” 89 *Federal Register* 73293, September 10, 2024, <https://www.govinfo.gov/content/pkg/FR-2024-09-10/pdf/2024-20074.pdf>. See also 42 U.S.C. §7412(c)(6).

⁶⁶ 42 U.S.C. §7412(c)(6). See also Air Knowledge EPA, “TOXC102.”

⁶⁷ 42 U.S.C. §7412(c)(6).

⁶⁸ 42 U.S.C. §7412(c)(5) and 42 U.S.C. §7412(c)(9).

⁶⁹ 72 *Federal Register* 53825, September 20, 2007.

⁷⁰ 42 U.S.C. §7412(c)(5).

⁷¹ EPA, “Listing of Marine Vessel Loading Operations Under Section 112(c) of the Clean Air Act,” 58 *Federal Register* 60021, November 12, 1993, https://archives.federalregister.gov/issue_slice/1993/11/12/60017-60022.pdf#page=5.

⁷² 42 U.S.C. §7412(b)(3)(C), 42 U.S.C. §7412(b)(3)(D), and 42 U.S.C. §7412(c)(9).

⁷³ 42 U.S.C. §7412(c)(9)(B)(i).

⁷⁴ 42 U.S.C. §7412(c)(9)(B)(ii).

based on a petition by a member of the public.⁷⁵ As an example of delisting, the source category of uranium hexafluoride production was removed in 2002.⁷⁶

Regulation

The second phase of the regulatory framework is the establishment of standards to limit and control emissions of HAPs. The framework provides both technology-based and health-based standards intended to reduce the adverse effects of HAPs.⁷⁷ For HAPs for which a health threshold is in place, “The Administrator may consider such threshold level, with an ample margin of safety, when establishing emission standards under this subsection.”⁷⁸

The framework distinguishes between major sources and area sources of HAPs, and provides mechanisms for regulating and controlling emissions of HAPs from these sources.⁷⁹ The framework also specifically regulates the subcategory of area sources “representing 90 percent of the area source emissions of the 30 hazardous air pollutants that present the greatest threat to public health in the largest number of urban areas,” the listing of which is described in the previous section.⁸⁰

The establishment of standards described in this section of the report and the review process described in a subsequent section are the components of an iterative regulatory process to develop standards for emissions of HAPs from stationary sources. The first stage involves establishing technology-based standards. The second stage requires the EPA to review the standards every eight years to determine if there are “developments in practices, processes, or control technologies” that may be appropriate to incorporate into the standards.⁸¹ The second stage also involves a one-time health-based evaluation of the standards that are based on Maximum Achievable Control Technology (MACT) to determine whether additional standards are needed to address any remaining residual risk associated with HAPs emissions.⁸² Based on the results of the review, EPA may be directed to revise the standards.⁸³

The standards developed by EPA are promulgated as NESHAPs for the source categories and subcategories of listed HAPs.⁸⁴ NESHAPs for major and area source categories use different

⁷⁵ 42 U.S.C. §7412(c)(9)(B).

⁷⁶ EPA, “National Emission Standards for Hazardous Air Pollutants: Revision of Source Category List Under Section 112 of the Clean Air Act,” 67 *Federal Register* 6521, February 12, 2002, <https://www.govinfo.gov/content/pkg/FR-2002-02-12/pdf/02-3348.pdf>.

⁷⁷ Ritts and Snowden, *Clean Air Act Handbook*, 2016, p. 253.

⁷⁸ 42 U.S.C. §7412(d)(4). The term *health threshold* appears in the statute but is not defined in the statute. EPA uses values from the EPA’s Integrated Risk Information System (IRIS) as part of the regulatory process promulgated under CAA Section 112. See EPA, “Integrated Risk Information System,” <https://www.epa.gov/iris>. According to Mills and Foureman, IRIS contains “[a]gency consensus scientific positions and quantitative values on cancer and noncancer health effects that may result from lifetime oral or inhalation exposure to specific chemical substances in the environment.” Amy Mills and Gary L. Foureman, “US EPA’s IRIS Pilot Program: Establishing IRIS as a Centralized, Peer-Reviewed Data Base with Agency Consensus1,” *Toxicology*, vol. 127, no. 1 (1998), p. 85.

⁷⁹ Ritts and Snowden, *Clean Air Act Handbook*, 2016, p. 254.

⁸⁰ 42 U.S.C. §7412(c)(3). See also EPA, “Urban Air Toxic Pollutants,” <https://www.epa.gov/haps/urban-air-toxic-pollutants>; and Ritts and Snowden, *Clean Air Act Handbook*, 2016, p. 300.

⁸¹ 42 U.S.C. §7412(d)(6).

⁸² 42 U.S.C. §7412(f)(2). See also Belden and Morrison, *Clean Air Act Essentials*, 2021, p. 174.

⁸³ Ritts and Snowden, *Clean Air Act Handbook*, 2016, p. 292.

⁸⁴ 42 U.S.C. §7412(c)(2). See also 42 U.S.C. §7412(d).

technological emissions control standards, described below. EPA has promulgated NESHAPs for over 100 source categories.⁸⁵

Maximum Achievable Control Technology (MACT) Standards

NESHAPs for major sources are promulgated under MACT standards.⁸⁶ For MACT standards, EPA is required to set standards for sources of the listed pollutants that achieve “the maximum degree of reduction in emissions” taking into account cost and “non-air-quality health and environmental impacts and energy requirements.”⁸⁷ The Senate Committee on Environment and Public Works has stated, “In setting MACT standards, EPA is to give priority to pollution prevention measures like process changes and materials substitution.”⁸⁸

EPA established MACT standards for both new and existing sources of HAPs emissions. The MACT standards for new sources are based on “emissions levels that are already being achieved by the best-controlled and lowest-emitting sources in an industry.”⁸⁹ The MACT standards for existing sources, where there are more than 30 sources, are based on “the level of performance already achieved by the average of the top-performing 12 percent of similar sources.”⁹⁰ The MACT standards for existing sources where there are fewer than 30 sources are set based on “the best average emission limitation achieved by the best performing 5 sources.”⁹¹ These MACT standards set minimum levels of emissions control known as the “MACT floor.”⁹² States may set emissions standards for HAPs that are more stringent than the MACT floor, but such standards may not be less stringent.⁹³ As discussed in the next section, MACT standards are subject to a review and revision process by EPA every eight years that includes a technology assessment.⁹⁴ MACT standards are also subject to a subsequent, one-time, health-based risk assessment.⁹⁵

For some source categories the NESHAP includes standards for both major and area sources. For example, the NESHAP for perchloroethylene (PCE) dry cleaning facilities includes MACT standards for major sources of dry cleaning using PCE, and for area sources of dry cleaning using PCE includes Generally Achievable Control Technology (GACT) standards, which are described in the following section.⁹⁶ In some cases the MACT and GACT standards are equally stringent. For example, EPA determined that the major source (MACT) and area source (GACT) standards for hazardous waste combustors should be equally stringent.⁹⁷

⁸⁵ EPA, “National Emission Standards for Hazardous Air Pollutants (NESHAP).”

⁸⁶ 42 U.S.C. §7412(d)(2).

⁸⁷ 42 U.S.C. §7412(d)(2).

⁸⁸ Senate Committee on Environment and Public Works, *Clean Air Act Amendments of 1989*, S. Rept. 101-228, p. 148.

⁸⁹ EPA, “Risk and Technology Review of the National Emissions Standards for Hazardous Air Pollutants,” <https://www.epa.gov/stationary-sources-air-pollution/risk-and-technology-review-national-emissions-standards-hazardous>. See also 42 U.S.C. §7412(d)(3).

⁹⁰ EPA, “Setting Emissions Standards for Major Sources of Toxic Air Pollutants,” <https://www.epa.gov/clean-air-act-overview/setting-emissions-standards-major-sources-toxic-air-pollutants>. See also 42 U.S.C. §7412(d)(3)(A).

⁹¹ 42 U.S.C. §7412(d)(3)(B).

⁹² Ritts and Snowden, *Clean Air Act Handbook*, 2016, p. 280.

⁹³ 42 U.S.C. 85 Subchapter I, Part A, §7416. Retention of State Authority.

⁹⁴ 42 U.S.C. §7412(d)(6). See also 42 U.S.C. §7412(f)(2).

⁹⁵ 42 U.S.C. §7412(d)(6). See also 42 U.S.C. §7412(f)(2).

⁹⁶ EPA, “National Emission Standards for Hazardous Air Pollutants: National Perchloroethylene Air Emission Standards for Dry Cleaning Facilities Technology Review,” 90 *Federal Register* 1041, 1043, January 7, 2025, <https://www.govinfo.gov/content/pkg/FR-2025-01-07/pdf/2024-31223.pdf>.

⁹⁷ Belden and Morrison, *Clean Air Act Essentials*, 2021, p. 172.

Generally Achievable Control Technology (GACT) Standards

The EPA Administrator can promulgate MACT standards for area sources of HAPs, but the CAA also provides the Administrator with the option of promulgating GACT standards for area sources.⁹⁸ As GACT standards are less strict than MACT standards, some commentators have stated that they may facilitate the development of standards for area sources.⁹⁹ EPA has a degree of flexibility in determining GACT standards based on cost and technical feasibility.¹⁰⁰ The GACT standards reflect the application of “methods, practices and techniques which are commercially available and appropriate for application by the sources in the category considering economic impacts and the technical capabilities of the firms to operate and maintain the emissions control systems.”¹⁰¹

A GACT standard does not have the same requirements as a MACT standard.¹⁰² For example, a GACT standard does not have a minimum emissions control level or “floor” as a MACT standard has.¹⁰³ Another difference is that while area source NESHAPs under the GACT standard are subject to subsequent technology-based review, they are not subject to the subsequent health-based risk assessment to which major source NESHAPs are subject (as described in the “Review” section).¹⁰⁴

The regulation of area sources includes specific provisions to address HAPs in urban areas, as the statute states that “emissions of hazardous air pollutants from area sources may individually, or in the aggregate, present significant risks to public health in urban areas.”¹⁰⁵ As noted in the previous section, EPA is required to “identify not less than 30 hazardous air pollutants which, as the result of emissions from area sources, present the greatest threat to public health in the largest number of urban areas.”¹⁰⁶ Having identified the 30 HAPs that present the greatest danger to public health in urban areas, EPA is directed to regulate the area sources responsible for the emission of 90% of these 30 identified HAPs.¹⁰⁷ To address these pollutants, in 1999, EPA developed and implemented the Integrated Urban Air Toxics Strategy. The strategy includes

- source-specific and sector-based standards, which include regulatory activities designed to address air toxics on a national level;
- national, regional, and community-based initiatives focusing on multimedia and cumulative risks to address and resolve issues at the local level through partnerships with state, tribal, and local governments and community stakeholders;
- national-level air toxics assessments using analytical tools such as emissions inventories, monitoring networks, and analytical assessments to identify risks, track progress, and help prioritize efforts; and

⁹⁸ 42 U.S.C. §7412(d)(2). See also 42 U.S.C. §7412(f) and 42 U.S.C. §7412(d)(5).

⁹⁹ Ritts and Snowden, *Clean Air Act Handbook*, 2016, p. 300.

¹⁰⁰ Belden and Morrison, *Clean Air Act Essentials*, 2021, p. 172.

¹⁰¹ Senate Committee on Environment and Public Works, *Clean Air Act Amendments of 1989*, S.Rept. 101-228, p. 171.

¹⁰² Ritts and Snowden, *Clean Air Act Handbook*, 2016, p. 300.

¹⁰³ Belden and Morrison, *Clean Air Act Essentials*, 2021, p. 172.

¹⁰⁴ Ritts and Snowden, *Clean Air Act Handbook*, 2016, p. 300. See also 42 U.S.C. §7412(d)(5).

¹⁰⁵ 42 U.S.C. §7412(k)(1).

¹⁰⁶ 42 U.S.C. §7412(k)(3)(B)(i). See also EPA, “Urban Air Toxic Pollutants,” <https://www.epa.gov/haps/urban-air-toxic-pollutants>; and EPA, “Area Sources of Urban Air Toxics,” <https://www.epa.gov/haps/area-sources-urban-air-toxics>.

¹⁰⁷ 42 U.S.C. §7412(c)(3).

- outreach and education consisting of activities involving state, tribal, and local agencies, cities, communities, and other groups and organizations that help EPA implement its program to reduce air toxics emissions.¹⁰⁸

“Once-In Always-In” MACT Guidance

The “once-in always-in” issue centers on whether a source that has been classified as a major source subject to MACT standards can become an area source not subject to MACT standards by reducing HAPs emissions below the major source threshold.¹⁰⁹ In 1995, EPA issued a guidance memorandum to clarify when a major source of HAPs could become an area source rather than comply with major source requirements by obtaining federally enforceable limits on its potential to emit HAPs.¹¹⁰ This memorandum stated that, once a source was subject to MACT standards as a major source, it remained subject to MACT standards and could not become an area source not subject to MACT standards, even if it reduced emissions below the major source threshold.¹¹¹

In 2018 EPA issued a guidance memorandum withdrawing its “once-in always-in policy,” stating that “sources of hazardous air pollutants previously classified as ‘major sources’ may be reclassified as ‘area sources’ at any time, provided the facility limits its potential to emit below major source thresholds.”¹¹² In 2020 EPA promulgated a rule that allowed for reclassification from major source to area source if the source emissions fell below the major source threshold.¹¹³ In 2024, however, EPA promulgated a rule that stated that sources of the seven toxic air pollutants listed in Section 112(c)(6) of the CAA, once having been listed as major sources subject to MACT standards, would have to continue to comply with MACT standards even if their emissions fell below threshold levels and they were reclassified as area sources.¹¹⁴ In 2025 Congress enacted legislation (P.L. 119-20) disapproving the rule. This statute repealed the “once-in always-in” rule for sources of these seven HAPs, making it possible for them to be reclassified as area sources if their emissions were below threshold amounts, and therefore to be no longer subject to MACT standards.¹¹⁵

¹⁰⁸ EPA, “Integrated Urban Air Toxics Strategy,” <https://www.epa.gov/haps/integrated-urban-air-toxics-strategy>.

¹⁰⁹ Harvard Law School Environmental and Energy Law Program, “Once In Always In Guidance for Major Sources Under the Clean Air Act,” <https://eelp.law.harvard.edu/tracker/once-in-always-in-guidance-for-major-sources-under-the-clean-air-act/>.

¹¹⁰ Memorandum from J. Seitz, Director, EPA Office of Air Quality Planning and Standards, “Potential to Emit for MACT Standards—Guidance on Timing Issues,” 1995, <https://www.epa.gov/sites/default/files/2018-02/documents/pteguid.pdf> (hereinafter EPA, MACT Guidance, 1995).

¹¹¹ Ritts and Snowden, *Clean Air Act Handbook*, 2016, p. 261.

¹¹² EPA, “Guidance for Reclassification of Major Sources as Area Sources Under Section 112 of the Clean Air Act,” <https://www.epa.gov/stationary-sources-air-pollution/guidance-reclassification-major-sources-area-sources-under-section>. See also EPA, “Reclassification of Major Sources as Area Sources Under Section 112 of the Clean Air Act,” Guidance Memorandum, 2018.

¹¹³ EPA, “Reclassification of Major Sources as Area Sources Under Section 112 of the Clean Air Act,” 85 *Federal Register* 73854, November 19, 2020, <https://www.govinfo.gov/content/pkg/FR-2020-11-19/pdf/2020-22044.pdf>.

¹¹⁴ EPA, “Review of Final Rule Reclassification of Major Sources as Area Sources Under Section 112 of the Clean Air Act,” 89 *Federal Register* 73293, September 10, 2024, <https://www.govinfo.gov/content/pkg/FR-2024-09-10/pdf/2024-20074.pdf>. EPA, “Review of Final Rule Reclassification of Major Sources as Area Sources Under Section 112 of the Clean Air Act,” 89 *Federal Register* 73293, 73295. See also EPA, “EPA Proposes to Strengthen 2020 Air Toxics Regulation to Prevent Emissions Increases and Protect Public Health,” press release, September 22, 2023, <https://www.epa.gov/newsreleases/epa-proposes-strengthen-2020-air-toxics-regulation-prevent-emissions-increases-and>.

¹¹⁵ EPA, “Congressional Review Act Revocation of 2024 Review of Final Rule Reclassification of Major Sources as Area Sources Under Section 112 of the Clean Air Act,” 91 *Federal Register* 58, January 2, 2026.

Review

The third phase of the regulatory framework for limiting HAPs emissions from stationary sources is the iterative process of review to determine if there is sufficient control of risk from HAPs.¹¹⁶ If EPA determines during the review process that controls are insufficient, the Administrator may choose to revise the standards through the process described in the previous section. This review process has both technology-based and health-based review elements.¹¹⁷ In the 1990 CAA amendments Congress included an iterative review process that included health and environmental risk assessments to determine if the technology-based standards were sufficient to control the risks from HAPs.¹¹⁸

Eight years after promulgating a NESHAP, EPA is required to review the standard and determine if revision is necessary.¹¹⁹ There are two elements of this review: a technology review and a health-based residual risk review.¹²⁰ The technology review is required for both MACT- and GACT-based NESHAPs for major and area sources.¹²¹ The technology review is the first stage of the review process and examines whether there are “developments in practices, processes, or control technologies” that may be appropriate to incorporate into the standards.¹²² This review includes an evaluation of whether more efficient, cost-effective technologies have become available, indicating a need for tighter standards.¹²³ The technology review is required to be repeated no less often than every eight years after the NESHAP is promulgated.¹²⁴

The health-based residual risk review is required within eight years after the NESHAP is promulgated and occurs only once.¹²⁵ The residual risk review is required for all sources for which MACT standards have been established.¹²⁶ No residual risk review is required for area sources subject only to GACT standards.¹²⁷ In the residual risk analysis, EPA is required to review any “residual risk” to public health and the environment that remains after implementation of MACT standards.¹²⁸ EPA must promulgate emissions standards necessary to provide “an ample

¹¹⁶ Air Knowledge EPA, “TOXC102.”

¹¹⁷ EPA, “Risk and Technology Review of the National Emissions Standards for Hazardous Air Pollutants,” <https://www.epa.gov/stationary-sources-air-pollution/risk-and-technology-review-national-emissions-standards-hazardous>.

¹¹⁸ Ritts and Snowden, *Clean Air Act Handbook*, 2016, p. 253. See also, EPA, “Risk and Technology Review of the National Emissions Standards for Hazardous Air Pollutants.”

¹¹⁹ 42 U.S.C. §7412(d)(6).

¹²⁰ EPA, “Risk and Technology Review of the National Emissions Standards for Hazardous Air Pollutants.”

¹²¹ 42 U.S.C. §7412(f)(2) and 42 U.S.C. § 7412(d)(6). See also EPA, “National Emission Standards for Hazardous Air Pollutants: Iron and Steel Foundries Major Source Residual Risk and Technology Review and Area Source Technology Review,” 85 *Federal Register* 56080, 56082, September 10, 2020, <https://www.govinfo.gov/content/pkg/FR-2020-09-10/pdf/2020-14143.pdf>.

¹²² 42 U.S.C. §7412(d)(6).

¹²³ EPA, “Setting Emissions Standards for Major Sources of Toxic Air Pollutants,” <https://www.epa.gov/clean-air-act-overview/setting-emissions-standards-major-sources-toxic-air-pollutants>.

¹²⁴ 42 U.S.C. §7412(d)(6).

¹²⁵ 42 U.S.C. §7412(f)(2). See also Ritts and Snowden, *Clean Air Act Handbook*, 2016, p. 253. See also EPA, “Risk and Technology Review of the National Emissions Standards for Hazardous Air Pollutants.”

¹²⁶ Ritts and Snowden, *Clean Air Act Handbook*, 2016, p. 292.

¹²⁷ EPA, “Review of Final Rule Reclassification of Major Sources as Area Sources Under Section 112 of the Clean Air Act,” 88 *Federal Register* 66336, 66339, September 27, 2023, <https://www.govinfo.gov/content/pkg/FR-2023-09-27/pdf/2023-21041.pdf>: “Unlike MACT standards required for major sources, GACT standards are not required to be updated pursuant to residual risk reviews.”

¹²⁸ Belden and Morrison, *Clean Air Act Essentials*, 2021, p. 174.

margin of safety” to protect public health based on the residual risk review or determine that the standards being reviewed already provide such a margin without any revision.¹²⁹

EPA’s interpretation of the requirement to “provide an ample margin of safety to protect public health” has effectively established a range of permissible risk levels within which it may set residual risk standards for carcinogenic HAPs.¹³⁰ EPA generally uses the same approach that the agency used in the 1989 benzene NESHAP.¹³¹ Following the benzene NESHAP, EPA has established a three-tiered regulatory framework for setting standards for carcinogens, known as the “fuzzy bright line.”¹³² The approach to addressing residual risk by EPA is determined by the level of risk:

EPA must eliminate risks above one hundred in one million (1 in 10,000), does not have to address risks below one in one million (1 in 1,000,000), and has discretion to set a residual risk standard somewhere in between.... In a second step, EPA can consider whether providing the public with “an ample margin of safety” requires risks to be reduced further than this “safe” level, based on EPA’s consideration of health information and other factors such as cost, economic impact, and technological feasibility.¹³³

For MACT standards EPA combines the two types of review—that is, the technology assessment and the residual risk review—into a joint Risk and Technology Review (RTR), in the review at the end of the first eight-year period for MACT standards.¹³⁴ As noted above, subsequent reviews do include the technological assessments after the first review but do not include the residual risk assessment in subsequent reviews.¹³⁵

Preventing the Catastrophic Release of Hazardous Substances

Section 112(r) of the CAA includes distinct provisions to prevent and minimize the consequences of the accidental catastrophic release of hazardous substances.¹³⁶ Such releases occurred at a chemical plant in Bhopal, India, in 1984, killing thousands, and at a chemical plant in Institute,

¹²⁹ 42 U.S.C. §7412(f)(2)(A).

¹³⁰ 42 U.S.C. §7412(f)(2)(A).

¹³¹ EPA, *Residual Risk: Report to Congress*, EPA-453/R-99-001, 1999, p. ES-6.

¹³² EPA, “Technical and Regulatory Support to Develop a Rulemaking to Potentially Modify the NESHAP Subpart W Standard for Radon Emissions from Operating Uranium Mills (40 CFR 61.250),” 2014, Table 2, p. 10. See also Alex Jackson, “EPA’s Fuzzy Bright Line Approach to Residual Risk,” *Ecology Law Quarterly*, vol. 36 (2009), pp. 439-466.

¹³³ EPA, “Technical and Regulatory Support to Develop a Rulemaking to Potentially Modify the NESHAP Subpart W Standard for Radon Emissions from Operating Uranium Mills (40 CFR 61.250),” 2014, Table 2, p. 10. See also EPA, *Residual Risk: Report to Congress*, EPA-453/R-99-001, 1999.

¹³⁴ Ritts and Snowden, *Clean Air Act Handbook*, 2016, p. 291.

¹³⁵ EPA, “Risk and Technology Review of the National Emissions Standards for Hazardous Air Pollutants.” See also Air Knowledge EPA, “TOXC102.”

¹³⁶ 42 U.S.C. §7412(r).

WV, in 1985, injuring hundreds.¹³⁷ These accidents prompted Congress to include Section 112(r) in the 1990 CAA amendments.¹³⁸

Section 112(r) includes the establishment of an independent Chemical Safety and Hazard Investigation Board (CSB).¹³⁹ The CSB is responsible for investigating accidents involving releases of hazardous substances “resulting in a fatality, serious injury or substantial property damages”;¹⁴⁰ conducting studies, including incident investigations; and preparing reports on the handling of toxic materials and measures to reduce the risk of accidents.¹⁴¹

EPA Program for Preventing Catastrophic Releases of Hazardous Substances

EPA’s program for preventing the catastrophic releases of hazardous substances includes the following three components:

1. Promulgation of a list of regulated substances and threshold quantities that “are known to cause or may reasonably be anticipated to cause death, injury, or serious adverse effects to human health or the environment.” 42 U.S.C. §7412(r)(3)-(5).
2. The implementation of a risk management plan (RMP) by owners and operators “to detect and prevent or minimize accidental releases of such substances from the stationary source, and to provide a prompt emergency response to any such releases in order to protect human health and the environment.” 42 U.S.C. §7412(r)(7)(B)(ii).
3. The implementation of a general duty clause that requires owners and operators of stationary sources “to identify hazards which may result from such releases using appropriate hazard assessment techniques, to design and maintain a safe facility taking such steps as are necessary to prevent releases, and to minimize the consequences of accidental releases which do occur.” 42 U.S.C. §7412(r)(1).

Section 112(r)(3) requires EPA to promulgate a list of hazardous substances to be regulated with respect to accidental release and “threshold quantities” or levels at which death, injury, and serious adverse effects are reasonably likely to occur.¹⁴² This list is distinct from the list of HAPs in Section 112(b)(1), although some substances, such as phosgene and hydrogen fluoride, appear on both lists.¹⁴³ The statute states that substances on the list of substances regulated under Section 112(r) are evaluated for inclusion in the list based on “(i) the severity of any acute adverse health effects associated with accidental releases of the substance; (ii) the likelihood of accidental releases of the substance; and (iii) the potential magnitude of human exposure to accidental releases of the substance.”¹⁴⁴

As set out in the *Code of Federal Regulations*, the list of substances regulated under Section 112(r) may be revised, with substances being added or removed from the list by the action of the

¹³⁷ 42 U.S.C. §7412(r)(3): These are hazardous substances, the release of which “may reasonably be anticipated to cause death, injury, or serious adverse effects to human health or the environment.” See also Senate Committee on Environment and Public Works, *Clean Air Act Amendments of 1989*, S.Rept. 101-228, p. 134. See also E. Broughton, “The Bhopal Disaster and Its Aftermath: A Review,” *Environmental Health*, vol. 4, no. 6 (2005). See also R. C. Baron et al., “Surveillance for Adverse Health Effects Following a Chemical Release in West Virginia,” *Disasters*, vol. 12, no. 4 (1988), p. 356. See also Martineau and Snowden, *Clean Air Act Handbook*, 2011, p. 285.

¹³⁸ Ritts and Snowden, *Clean Air Act Handbook*, 2016, p. 315.

¹³⁹ 42 U.S.C. §7412(r)(6).

¹⁴⁰ 42 U.S.C. §7412(r)(6)(C)(i).

¹⁴¹ 42 U.S.C. §7412(r)(6). See also U.S. Chemical Safety Board (CSB), “U.S. Chemical Safety Board Issues Final Report on Toxic Hydrogen Fluoride Incidents,” press release, May 27, 2025, <https://www.csb.gov/us-chemical-safety-board-issues-final-report-on-toxic-hydrogen-fluoride-incidents/>.

¹⁴² 42 U.S.C. §7412(r)(3). See also 42 U.S.C. §7412(r)(5).

¹⁴³ 42 U.S.C. §7412(b)(1). See also EPA, “How Did EPA Select the List of Regulated Substances?” <https://www.epa.gov/rmp/how-did-epa-select-list-regulated-substances>.

¹⁴⁴ 42 U.S.C. §7412(r)(4)(A).

EPA Administrator or by petition. The list is to be reviewed every five years.¹⁴⁵ A substance may be added to the list “if, in the case of an accidental release, it is known to cause or may be reasonably anticipated to cause death, injury, or serious adverse effects to human health or the environment.”¹⁴⁶ A substance may be deleted from the list “if adequate data on the health and environmental effects of the substance are available to determine that the substance, in the case of an accidental release, is not known to cause and may not be reasonably anticipated to cause death, injury, or serious adverse effects to human health or the environment.”¹⁴⁷

Section 112(r)(7)(ii) requires preparation of a risk management plan (RMP) by an owner or operator of a stationary source of a regulated or hazardous substance above a threshold level.¹⁴⁸ RMPs have three components: (1) a hazard assessment, (2) a program for preventing accidental releases, and (3) a response program in the event that a release occurs.¹⁴⁹ The hazard assessment requires estimates of potential regulated substance release quantities, downwind effects, a five-year release history, and a worst-case scenario.¹⁵⁰ The program for preventing accidental releases entails provisions for preventing accidental releases that include maintenance, safety precautions, monitoring, and employee training at the source location.¹⁵¹ The response program is to include specific actions to be taken in the event of an accidental release, including informing the public and notifying local emergency health care responders.¹⁵² Facilities must submit their RMPs to EPA, to the CSB, to the state where the source is located, and to the local agency tasked with planning for and responding to accidental releases.¹⁵³

Section 112(r) includes a general duty clause that applies to owners and operators of stationary sources that store or use listed substances or other hazardous materials, including those owners and operators not required to submit an RMP.¹⁵⁴ The CAA states the general duty clause in Section 112(r)(1):

The owners and operators of stationary sources producing, processing, handling or storing such substances have a general duty ... to identify hazards which may result from such releases using appropriate hazard assessment techniques, to design and maintain a safe facility taking such steps as are necessary to prevent releases, and to minimize the consequences of accidental releases which do occur.¹⁵⁵

The requirements under the general duty clause are not limited to the substances listed under Section 112(r)(3); they also include “any other extremely hazardous substance.”¹⁵⁶ The requirements of the general duty clause in Section 112(r)(1) are the same as those for employers and employees under the Occupational Safety and Health Act: “To identify hazards which may result from such releases using appropriate hazard assessment techniques, to design and maintain

¹⁴⁵ 42 U.S.C. §7412(r)(3). See also 40 C.F.R. §68.130.

¹⁴⁶ 40 C.F.R. §68.120 Petition process (b).

¹⁴⁷ 40 C.F.R. §68.120 Petition process (c).

¹⁴⁸ 42 U.S.C. §7412(r)(7)(B)(ii).

¹⁴⁹ 42 U.S.C. §7412(r)(7)(B)(ii).

¹⁵⁰ 42 U.S.C. §7412(r)(7)(B)(ii)(I).

¹⁵¹ 42 U.S.C. §7412(r)(7)(B)(ii)(II).

¹⁵² 42 U.S.C. §7412(r)(7)(B)(ii)(III).

¹⁵³ 42 U.S.C. §7412(r)(7)(B)(iii).

¹⁵⁴ EPA, “The General Duty Clause,” EPA 550-F-20-002, 2020, p. 2.

¹⁵⁵ 42 U.S.C. §7412(r)(1).

¹⁵⁶ 42 U.S.C. §7412(r)(1).

a safe facility taking such steps as are necessary to prevent releases, and to minimize the consequences of accidental releases which do occur.”¹⁵⁷

EPA has provided guidance to owners and operators of facilities to comply with the general duty clause, stating that these owners and operators should

- (1) Adopt or follow any relevant industry codes, practices or consensus standards (for the process or facility as a whole as well as for particular chemicals or pieces of equipment),
- (2) Be aware of unique circumstances of your facility which may require a tailored accident prevention program, and
- (3) Be aware of accidents and other incidents in your industry that indicate potential hazards.¹⁵⁸

The general duty clause does not require a risk management plan but does provide authority for enforcement actions through administrative penalties and civil actions.¹⁵⁹

HAPs Activities in the 119th Congress

In the 119th Congress, Members have introduced legislation and conducted oversight to address EPA’s regulation of HAPs under Section 112 of the CAA. This legislative activity and oversight has included action by Members on EPA’s rulemaking on the classification of major and area HAPs sources and EPA’s rulemaking on the NESHAPs of specific HAPs sources.¹⁶⁰ Congress has options to examine rules promulgated by EPA under Section 112. If Members of Congress disagree with the rules, they can introduce legislation through the use of the CRA, within the statutory time frame, to repeal rules.¹⁶¹ Members used the CRA to challenge EPA’s rulemaking on the regulation of HAPs. Some of these challenges were successful, while other challenges were not successful.¹⁶²

Members of Congress have also introduced legislation to change provisions of the CAA governing the regulation of HAPs. Bills have included proposed legislation to add substances to the list of HAPs in Section 112(b) of the CAA, legislation to remove the exemption for aggregation of oil and gas sources of HAPs, and legislation to remove the possibility for citizen suits under Section 112 of the CAA. Key examples and discussion of related congressional actions in the 119th Congress regarding Section 112 of the CAA are presented below. These examples do not comprise a comprehensive review of legislation or action that may have provisions relevant to Section 112, which would be beyond the scope of this report.

The first example of recent congressional action on EPA regulation of HAPs is the legislative activity in response to the “once-in always-in” rule. In 2024, as noted above, EPA promulgated a rule that stated that sources of the seven toxic air pollutants listed in Section 112(c)(6), once having been listed as major sources subject to the relevant NESHAP, would have to continue to

¹⁵⁷ 42 U.S.C. §7412(r)(1). See also 29 U.S.C. §654.

¹⁵⁸ EPA, “Fact Sheet: The General Duty Clause,” EPA 550-F-09-002, March 2009, <https://archive.epa.gov/epa/sites/production/files/2013-10/documents/gdc-fact.pdf>. See also EPA, “Guidance for Implementation of the General Duty Clause Clean Air Act Section 112(r)(1),” EPA 550-B00-002, 2000.

¹⁵⁹ Belden and Morrison, *Clean Air Act Essentials*, 2021, p. 184.

¹⁶⁰ CRS In Focus IF10015, *Congressional Oversight and Investigations*, by Todd Garvey, Mark J. Oleszek, and Ben Wilhelm.

¹⁶¹ 5 U.S.C. Chapter 8: Congressional Review of Agency Rulemaking.

¹⁶² For example, Congress has disapproved rulemaking on standards for tire manufacturing under Section 112 using the CRA (see H.J.Res. 61).

comply with those standards even if their emissions fell below threshold levels and they were reclassified as area sources.¹⁶³ This applied a new “once-in always-in” rule to existing major sources of these seven HAPs whereby they could be reclassified as area sources but would still be subject to the major source NESHAP.¹⁶⁴ On March 5, 2025, S.J.Res. 31 was introduced, which disapproved of the rule and which subsequently repealed the rule under the CRA, also as noted above.¹⁶⁵

On June 30, 2025, S.J.Res. 31 became law (P.L. 119-20), repealing the new “once-in always-in” rule for sources of these seven HAPs. This repeal made it possible for sources of these HAPs to be removed from regulation under MACT standards if their emissions were below threshold amounts.¹⁶⁶ The transition from major source to area source is sometimes referred to as “MM2A.” Sources that are reclassified as area sources will now become subject to area source NESHAPs for their source category.¹⁶⁷

Some Members supported the repeal of this rule, saying that the repeal would provide an incentive to reduce emissions and that the rule was harmful to the manufacturing and energy sectors.¹⁶⁸ Other Members opposed the repeal, saying that the rule prevented regression to higher levels of dangerous air pollution and ensured air pollution control by industrial facilities such as oil refineries.¹⁶⁹

Another key example of recent congressional action on EPA regulation of HAPs is the legislative activity in response to the Mercury Air Toxics Standards rule. In 2024 EPA promulgated a rule, commonly referred to as the Mercury and Air Toxics Standards (MATS) rule, that required certain coal-fired electricity generating units to meet a more stringent standard for filterable particulate

¹⁶³ EPA, “Review of Final Rule Reclassification of Major Sources as Area Sources Under Section 112 of the Clean Air Act,” 89 *Federal Register* 73293, 73295. The seven HAPs covered by this rule as stated in CAA Section 112(c)(6) are alkylated lead compounds, polycyclic organic matter, hexachlorobenzene, mercury, polychlorinated biphenyls, 2,3,7,8-tetrachlorodibenzofurans, and 2,3,7,8-tetrachlorodibenzo-p-dioxin.

¹⁶⁴ EPA, “Review of Final Rule Reclassification of Major Sources as Area Sources Under Section 112 of the Clean Air Act,” 89 *Federal Register* 73293. See also EPA, “EPA Proposes to Strengthen 2020 Air Toxics Regulation to Prevent Emissions Increases and Protect Public Health,” press release, September 22, 2023, <https://www.epa.gov/newsreleases/epa-proposes-strengthen-2020-air-toxics-regulation-prevent-emissions-increases-and>. See also EPA, “Fact Sheet: Reclassification of Major Sources as Area Sources Under Section 112 of the Clean Air Act (MM2A)—Final Action,” https://www.epa.gov/system/files/documents/2024-09/mm2a-final_fact-sheet.pdf. A history of the “once-in, always-in policy” is provided in this fact sheet.

¹⁶⁵ S.J.Res. 31. See also 5 U.S.C. Chapter 8: Congressional Review of Agency Rulemaking.

¹⁶⁶ EPA, “Guidance for Reclassification of Major Sources as Area Sources Under Section 112 of the Clean Air Act,” <https://www.epa.gov/stationary-sources-air-pollution/guidance-reclassification-major-sources-area-sources-under-section>.

¹⁶⁷ EPA, “Reclassification of Major Sources as Area Sources Under Section 112 of the Clean Air Act,” <https://www.epa.gov/stationary-sources-air-pollution/reclassification-major-sources-area-sources-under-section-112>. See also Belden and Morrison, *Clean Air Act Essentials*, 2021, p. 172.

¹⁶⁸ Rep. Randy Weber, “Providing for Congressional Disapproval of the Rule Submitted by the Environmental Protection Agency Relating to ‘Review of Final Rule Reclassification of Major Sources as Area Sources Under Section 112 of the Clean Air Act,’” *Congressional Record*, vol. 171, no. 86, May 21, 2025, p. H2213. See also Rep. Troy Balderson, “Providing for Congressional Disapproval of the Rule Submitted by the Environmental Protection Agency Relating to ‘Review of Final Rule Reclassification of Major Sources as Area Sources Under Section 112 of the Clean Air Act,’” *Congressional Record*, vol. 171, no. 86, May 21, 2025, p. H2214.

¹⁶⁹ Rep. Frank Pallone, “Providing for Congressional Disapproval of the Rule Submitted by the Environmental Protection Agency Relating to ‘Review of Final Rule Reclassification of Major Sources as Area Sources Under Section 112 of the Clean Air Act,’” *Congressional Record*, vol. 171, no. 86, May 21, 2025, p. H2213. See also Rep. Paul Tonko, “Providing for Congressional Disapproval of the Rule Submitted by the Environmental Protection Agency Relating to ‘Review of Final Rule Reclassification of Major Sources as Area Sources Under Section 112 of the Clean Air Act,’” *Congressional Record*, vol. 171, no. 86, May 21, 2025, p. H2214.

matter (fPM) emissions, among other requirements.¹⁷⁰ Some Members of Congress opposed this rule and introduced legislation in 2025 to repeal it or prevent the rule's enforcement. The Combating Overregulation And Limitation of Proven, Operable, Working Energy Resources Act, or COAL POWER Act (H.R. 3870), included provisions to repeal the MATS rule, and the Reliable Grid Act (H.R. 3751) included provisions to prohibit the EPA Administrator from enforcing the MATS rule.

On June 17, 2025, EPA proposed to “Repeal specific amendments to the NESHAP for Coal- and Oil-Fired Electric Utility Steam Generating Units (EGUs), commonly referred to as the Mercury and Air Toxics Standards (MATS), that were promulgated on May 7, 2024.”¹⁷¹ On February 19, 2026, EPA finalized “the repeal of certain amendments, finalized in 2024, to the MATS Rule.”¹⁷² This action repealed specific amendments to the MATS rule for the coal- and oil-fired EGU source category, among others. In the 2026 repeal, EPA stated the following:

The EPA is repealing the revised filterable particulate matter (fPM) emission standard, which serves as a surrogate for non-mercury hazardous air pollutant (HAP) metals for existing coal-fired EGUs; the revised fPM emission standard compliance demonstration requirements; and the revised mercury (Hg) emission standard for lignite-fired EGUs.¹⁷³

The repeal of the MATS rule was challenged under the CRA.¹⁷⁴ In April 2026, a Senator introduced S.J.Res. 188 that disapproved of the rule repealing the MATS rule. The motion to proceed with consideration of S.J.Res. 188 was rejected by the Senate, and the joint resolution did not proceed.

EPA's regulatory impact analysis (RIA) of the repeal of the MATS rule estimated that there would be compliance cost savings for the electric power industry with the repeal.¹⁷⁵ The RIA also estimated that with the repeal there would be increases in emissions of mercury and nonmercury heavy metals.¹⁷⁶ EPA has identified mercury as a neurotoxin.¹⁷⁷ The RIA estimated that the repeal of the MATS rule would result in hundreds of millions of dollars in compliance cost savings for the power industry¹⁷⁸ while having no effect on retail electricity prices.¹⁷⁹

¹⁷⁰ EPA, “National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units Review of the Residual Risk and Technology Review,” 89 *Federal Register* 38508, May 7, 2024, <https://www.govinfo.gov/content/pkg/FR-2024-05-07/pdf/2024-09148.pdf>.

¹⁷¹ EPA, “National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units,” 90 *Federal Register* 25535, June 17, 2025, <https://www.govinfo.gov/content/pkg/FR-2025-06-17/pdf/2025-10992.pdf>.

¹⁷² EPA, “Mercury and Air Toxics Standards,” <https://www.epa.gov/stationary-sources-air-pollution/mercury-and-air-toxics-standards>.

¹⁷³ EPA, “National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units: Final Repeal,” 91 *Federal Register* 9088, February 24, 2026, <https://www.govinfo.gov/content/pkg/FR-2026-02-24/pdf/2026-03638.pdf>.

¹⁷⁴ 5 U.S.C. Chapter 8: Congressional Review of Agency Rulemaking.

¹⁷⁵ EPA, “Regulatory Impact Analysis for the Final Repeal of Amendments to National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units,” EPA-452/R-26-001, 2026, p. ES-3 (hereinafter EPA, RIA MATS Repeal 2026).

¹⁷⁶ EPA, RIA MATS Repeal 2026, p. ES-4.

¹⁷⁷ EPA, “Health Effects of Exposures to Mercury,” <https://www.epa.gov/mercury/health-effects-exposures-mercury>.

¹⁷⁸ EPA, RIA MATS Repeal 2026, Table ES-1, p. ES-3.

¹⁷⁹ EPA, RIA MATS Repeal 2026, Table ES-3, p. ES-4.

In addition to these examples of congressional action, in the 119th Congress, Members have challenged the promulgation of NESHAPS for other HAPs source categories under the CRA. In 2025, a Senator introduced S.J.Res. 66 to challenge the EPA NESHAP for “Coke Ovens: Pushing, Quenching, and Battery Stacks, and Coke Oven Batteries ” under the CRA.¹⁸⁰ In the same year a Senator also introduced S.J.Res. 67 to challenge the EPA NESHAP for “Integrated Iron and Steel Manufacturing Facilities” under the CRA.¹⁸¹ In 2025 a Representative introduced H.J.Res. 61 to challenge the EPA NESHAP for “Rubber Tire Manufacturing” under the CRA.¹⁸² This challenge to the NESHAP for “Rubber Tire Manufacturing” under the CRA was successful, and the rule was revoked.¹⁸³

Members have introduced legislation to make changes to Section 112 of the CAA, including the addition of substances to the list of HAPs in Section 112(b), removing the exemption for aggregation of oil and gas sources of HAPs, and the removal of the possibility for citizen suits under Section 112 of the CAA. Representative Haley M. Stevens introduced H.R. 6990, the Prevent Release Of Toxic Emissions, Contamination, and Transfer Act of 2026, also known as the PROTECT Act of 2026, that would add “as a class all perfluoroalkyl and polyfluoroalkyl substances with at least one fully fluorinated carbon atom to the list of hazardous air pollutants under Section 112(b) of the Clean Air Act.” Representative Yvette D. Clarke introduced H.R. 6081, Closing Loopholes for Oil and other Sources of Emissions Act, also known as the CLOSE Act, to add hydrogen sulfide to the list of HAPs under Section 112(b) of the CAA. This legislation also included provisions to repeal the exemption of oil and gas sources under Section 112(n)(4) of the CAA. Senator Lisa Blunt Rochester introduced S. 3529, the Public Health Air Quality Act of 2025, which would require HAPs fenceline monitoring at some facilities. Senator Mike Lee introduced S. 3049, the Fair Air Enforcement Act of 2025, to repeal Section 304 of the CAA that includes provisions for citizen suits; the legislation includes conforming amendments for Section 112 of the CAA.

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¹⁸⁰ EPA, “National Emission Standards for Hazardous Air Pollutants for Coke Ovens: Pushing, Quenching, and Battery Stacks, and Coke Oven Batteries; Residual Risk and Technology Review, and Periodic Technology Review,” 90 *Federal Register* 29997, July 8, 2025, <https://www.govinfo.gov/content/pkg/FR-2025-07-08/pdf/2025-12626.pdf>.

¹⁸¹ EPA, “National Emission Standards for Hazardous Air Pollutants: Integrated Iron and Steel Manufacturing Facilities Technology Review: Interim Final Rule,” 90 *Federal Register* 29485, July 3, 2025, <https://www.govinfo.gov/content/pkg/FR-2025-07-03/pdf/2025-12407.pdf>.

¹⁸² EPA, “National Emission Standards for Hazardous Air Pollutants: Rubber Tire Manufacturing,” 89 *Federal Register* 94886, November 29, 2026, <https://www.federalregister.gov/d/2024-26895/page-94886>.

¹⁸³ EPA, “Rubber Tire Manufacturing: National Emission Standards for Hazardous Air Pollutants (NESHAP),” <https://www.epa.gov/stationary-sources-air-pollution/rubber-tire-manufacturing-national-emission-standards-hazardous>.

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