

The EPA Administrator, Lee Zeldin, signed the following notice on 09/29/2025, and EPA is submitting it for publication in the Federal Register (FR). While we have taken steps to ensure the accuracy of this Internet version of the rule, it is not the official version of the rule for purposes of compliance. Please refer to the official version in a forthcoming FR publication, which will appear on the Government Printing Office's govinfo website (<https://www.govinfo.gov/app/collection/fr>) and on Regulations.gov (<https://www.regulations.gov>) in Docket No. EPA-HQ-OAR-2025-0078. Once the official version of this document is published in the FR, this version will be removed from the Internet and replaced with a link to the official version.

6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[EPA-HQ-OAR-2025-0078; FRL-5774-01-OAR]

RIN 2060-AS32

National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting Technology Review

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The U.S. Environmental Protection Agency (EPA) is proposing amendments to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for the Secondary Lead Smelting source category (“Secondary Lead Smelting NESHAP”) under Clean Air Act (CAA) section 112. The EPA did not identify any cost-effective developments in practices, processes, and/or control technologies and is not proposing changes to the Secondary Lead Smelting NESHAP as a result of the technology review. The EPA is proposing to address previously unregulated hazardous air pollutants (HAP) from this source category. We are also addressing outstanding petition issues from the 2012 Secondary Lead Smelting (RTR), hereafter referred to as the 2012 RTR. In response to the petitions, we are taking comment on our conclusion in the 2012 RTR that the Secondary Lead Smelting NESHAP provides an ample margin of

safety to protect public health and on two additional provisions. In addition, the EPA is proposing revisions related to emissions during periods of startup, shutdown, and malfunction; to add requirements for electronic reporting; to revise monitoring requirements; and to make other minor technical revisions.

DATES: Comments must be received on or before **[INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. Under the Paperwork Reduction Act (PRA), comments on the information collection provisions are best assured of consideration if the Office of Management and Budget (OMB) receives a copy of your comments on or before **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

Public hearing: If anyone contacts us requesting a public hearing on or before **[INSERT DATE 5 CALENDAR DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, we will hold a virtual public hearing. See **SUPPLEMENTARY INFORMATION** for information on requesting and registering for a public hearing.

ADDRESSES: You may send comments, identified by Docket ID No. EPA-HQ-OAR-2025-0078, by any of the following methods:

- Federal eRulemaking Portal: <https://www.regulations.gov/> (our preferred method). Follow the online instructions for submitting comments.
- Email: a-and-r-docket@epa.gov. Include Docket ID No. EPA-HQ-OAR-2025-0078 in the subject line of the message.

- Mail: U.S. Environmental Protection Agency, EPA Docket Center, Docket ID No. EPA-HQ-OAR-2025-0078, Mail Code 28221T, 1200 Pennsylvania Avenue, NW, Washington, DC 20460.
- Hand/Courier Delivery: EPA Docket Center, WJC West Building, Room 3334, 1301 Constitution Avenue, NW, Washington, DC 20004. The Docket Center's hours of operation are 8:30 a.m. – 4:30 p.m., Monday – Friday (except Federal holidays).

Instructions: All submissions received must include the Docket ID No. for this rulemaking. Comments received may be posted without change to <https://www.regulations.gov/>, including any personal information provided. For detailed instructions on sending comments and additional information on the rulemaking process, see the **SUPPLEMENTARY INFORMATION** section of this document.

FOR FURTHER INFORMATION CONTACT: For questions about this proposed action, contact U.S. EPA, Attn: Amber Wright, Mail Drop: D243-02, 109 T.W. Alexander Drive, P.O. Box 12055, Research Triangle Park, North Carolina 27711; telephone number: (919) 541-4680; and email address: *Wright.Amber@epa.gov*.

SUPPLEMENTARY INFORMATION:

Participation in virtual public hearing. To request a virtual public hearing, contact the public hearing team at (888) 372-8699 or by email at *SPPDpublichearing@epa.gov*. If requested, the hearing will be held via virtual platform on **[INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. The hearing will convene at 11:00 a.m. Eastern Time (ET) and will conclude at 3:00 p.m. ET. The EPA may close a session 15 minutes after the last

This document is a prepublication version, signed by EPA Administrator, Lee Zeldin on 09/29/2025. We have taken steps to ensure the accuracy of this version, but it is not the official version.

pre-registered speaker has testified if there are no additional speakers. The EPA will announce further details at <https://www.epa.gov/stationary-sources-air-pollution/secondary-lead-smelting-national-emissions-standards-hazardous-air>.

If a public hearing is requested, the EPA will begin pre-registering speakers for the hearing no later than 1 business day after a request has been received. To register to speak at the virtual hearing, please use the online registration form available at <https://www.epa.gov/stationary-sources-air-pollution/secondary-lead-smelting-national-emissions-standards-hazardous-air> or contact the public hearing team at (888) 372-8699 or by email at SPPDpublichearing@epa.gov. The last day to pre-register to speak at the hearing will be **[INSERT DATE 12 CALENDAR DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. Prior to the hearing, the EPA will post a general agenda that will list pre-registered speakers at:

<https://www.epa.gov/stationary-sources-air-pollution/secondary-lead-smelting-national-emissions-standards-hazardous-air>.

The EPA will make every effort to follow the schedule as closely as possible on the day of the hearing. However, please plan for the hearings to run either ahead of schedule or behind schedule.

Each commenter will have 4 minutes to provide oral testimony. The EPA also recommends submitting the text of your oral testimony as written comments to the rulemaking docket.

The EPA may ask clarifying questions during the oral presentations but will not respond to the presentations at that time. Written statements and supporting information

submitted during the comment period will be considered with the same weight as oral testimony and supporting information presented at the public hearing.

Please note that any updates made to any aspect of the hearing will be posted online at <https://www.epa.gov/stationary-sources-air-pollution/secondary-lead-smelting-national-emissions-standards-hazardous-air>. While the EPA expects the hearing to go forward as set forth above, please monitor our website or contact the public hearing team at (888) 372-8699 or by email at SPPDpublichearing@epa.gov to determine if there are any updates. The EPA does not intend to publish a document in the *Federal Register* (FR) announcing updates.

If you require the services of a translator or special accommodation such as audio description, please pre-register for the hearing with the public hearing team and describe your needs by **[INSERT DATE 7 CALENDAR DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. The EPA may not be able to arrange accommodations without advanced notice.

Docket. The EPA has established a docket for this action under Docket ID No. EPA-HQ-OAR-2025-0078. All documents in the docket are listed in <https://www.regulations.gov/>. Although listed, some information is not publicly available, *e.g.*, Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only as PDF versions that can only be accessed on the EPA computers in the docket office reading room. Certain databases and physical items cannot be downloaded from the docket but may be requested by contacting the docket office at 202-566-1744. The docket office has up to 10 business days to respond to

This document is a prepublication version, signed by EPA Administrator, Lee Zeldin on 09/29/2025. We have taken steps to ensure the accuracy of this version, but it is not the official version.

these requests. With the exception of such material, publicly available docket materials are available electronically at <https://www.regulations.gov>.

Instructions. Direct your comments to Docket ID No. EPA-HQ-OAR-2025-0078. The EPA's policy is that all comments received will be included in the public docket without change and may be made available online at <https://www.regulations.gov>, including any personal information provided, unless the comment includes information claimed to be CBI or other information whose disclosure is restricted by statute. Do not submit electronically to <https://www.regulations.gov> any information that you consider to be CBI or other information whose disclosure is restricted by statute. This type of information should be submitted as discussed below.

The EPA may publish any comment received to its public docket. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.*, on the Web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <https://www.epa.gov/dockets/commenting-epa-dockets>.

The <https://www.regulations.gov> website allows you to submit your comment anonymously, which means the EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an email comment directly to the EPA without going through <https://www.regulations.gov>, your email address will be automatically captured and included as part of the comment that is placed

in the public docket and made available on the Internet. If you submit an electronic comment, the EPA recommends that you include your name and other contact information in the body of your comment and with any digital storage media you submit. If the EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, the EPA may not be able to consider your comment. Electronic files should not include special characters or any form of encryption and should be free of any defects or viruses. For additional information about the EPA's public docket, visit the EPA Docket Center homepage at <https://www.epa.gov/dockets>.

The EPA is soliciting comment on numerous aspects of this proposed rule. The EPA has indexed each comment solicitation with an identifier (*e.g.*, "Question 1, Question 2, . . .") to provide a consistent framework for effective and efficient provision of comments. Accordingly, we ask that commenters include the corresponding identifier when providing comments relevant to that comment solicitation. We ask that commenters include the identifier in either a heading, or within the text of each comment (*e.g.*, "In response to Question 1, . . .") to make clear which comment solicitation is being addressed. We emphasize that we are not limiting comment to these identified areas and encourage provision of any other comments relevant to this proposal.

Submitting CBI. Do not submit information containing CBI to the EPA through <https://www.regulations.gov/>. Clearly mark the part or all of the information that you claim to be CBI. For CBI information on any digital storage media that you mail to the EPA, note the docket ID, mark the outside of the digital storage media as CBI, and identify electronically within the digital storage media the specific information that is claimed as CBI. In addition to one complete version of the comments that includes

information claimed as CBI, you must submit a copy of the comments that does not contain the information claimed as CBI directly to the public docket through the procedures outlined in *Instructions* above. If you submit any digital storage media that does not contain CBI, mark the outside of the digital storage media clearly that it does not contain CBI and note the docket ID. Information not marked as CBI will be included in the public docket and the EPA's electronic public docket without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 Code of Federal Regulations (CFR) part 2.

Our preferred method to receive CBI is for it to be transmitted electronically using email attachments, File Transfer Protocol (FTP), or other online file sharing services (*e.g.*, Dropbox, OneDrive, Google Drive). Electronic submissions must be transmitted directly to the Office of Air Quality Planning and Standards (OAQPS) CBI Office at the email address oaqps_cbi@epa.gov and, as described above, should include clear CBI markings and note the docket ID. If assistance is needed with submitting large electronic files that exceed the file size limit for email attachments, and if you do not have your own file sharing service, please email oaqps_cbi@epa.gov to request a file transfer link. If sending CBI information through the postal service, please send it to the following address: U.S. EPA, Attn: OAQPS Document Control Officer, Mail Drop: C404-02, 109 T.W. Alexander Drive, P.O. Box 12055, Research Triangle Park, North Carolina 27711, Attention Docket ID No. EPA-HQ-OAR-2025-0078. The mailed CBI material should be double wrapped and clearly marked. Any CBI markings should not show through the outer envelope.

Preamble acronyms and abbreviations. Throughout this preamble the use of “we,” “us,” or “our” is intended to refer to the EPA. We use multiple acronyms and terms in this preamble. While this list may not be exhaustive, to ease the reading of this preamble and for reference purposes, the EPA defines the following terms and acronyms here:

ABR	Association of Battery Recyclers
ANSI	American National Standards Institute
ASME	American Society of Mechanical Engineers
BACT	best available control technology
CAA	Clean Air Act
COS	carbonyl sulfide
CBI	Confidential Business Information
CDX	Central Data Exchange
CEDRI	Compliance and Emissions Data Reporting Interface
CEMS	continuous emissions monitoring systems
CFR	Code of Federal Regulations
Cl ₂	chlorine
CMS	continuous monitoring system
CO ₂	carbon dioxide
D/F	dioxins and furans
EPA	Environmental Protection Agency
FR	<i>Federal Register</i>
FTP	File Transfer Protocol
GACT	generally available control technology
gr/dscf	grains per dry standard cubic foot
HAP	hazardous air pollutant(s)
HQ	hazard quotient
HCl	hydrochloric acid
HEPA	high-efficiency particulate air
ICR	information collection request
LAER	lowest achievable emission rate
LEAN	Louisiana Environmental Action Network
MACT	maximum achievable control technology
mg/dscm	milligrams per dry standard cubic meter
mm	millimeters
NAAQS	National Ambient Air Quality Standards
NAICS	North American Industry Classification System
NEI	National Emissions Inventory
NESHAP	National Emission Standards for Hazardous Air Pollutants
NOCS	Notification of Compliance Status
NRDC	Natural Resources Defense Council

This document is a prepublication version, signed by EPA Administrator, Lee Zeldin on 09/29/2025. We have taken steps to ensure the accuracy of this version, but it is not the official version.

NSSN	National Standards Service Network
NTTAA	National Technology Transfer and Advancement Act
OAQPS	Office of Air Quality Planning and Standards
OMB	Office of Management and Budget
O ₂	oxygen
PM	particulate matter
ppmv	parts per million by volume
PRA	Paperwork Reduction Act
PV	present value
PVC	polyvinyl chloride
RACT	reasonably available control technology
RATA	relative accuracy test audit
REL	reference exposure level
RFA	Regulatory Flexibility Act
RTR	Risk and Technology Review
SBA	Small Business Administration
SSM	startup, shutdown, and malfunction
TEQ	toxic equivalency quotient
THC	total hydrocarbons
tpy	tons per year
UMRA	Unfunded Mandates Reform Act
UPL	upper prediction limit
VCS	voluntary consensus standards
WESP	wet electrostatic precipitator

Table of Contents

I. General Information

- A. Does this action apply to me?
- B. Where can I get a copy of this document and other related information?

II. Background

- A. What is the statutory authority for this action?
- B. What is this source category and how does the current NESHAP regulate its HAP emissions?
- C. What data collection activities were conducted to support this action?
- D. What other relevant background information and data are available?
- E. How does the EPA perform the technology review?

III. Analytical Results and Proposed Decisions

- A. What are the results and proposed decisions based on our technology review, and what is the rationale for those decisions?
- B. What other actions are we proposing, and what is the rationale for those actions?
- C. What compliance dates are we proposing, and what is the rationale for the proposed compliance dates?

IV. Summary of Cost, Environmental, and Economic Impacts

- A. What are the affected sources?
- B. What are the air quality impacts?

This document is a prepublication version, signed by EPA Administrator, Lee Zeldin on 09/29/2025. We have taken steps to ensure the accuracy of this version, but it is not the official version.

- C. What are the cost impacts?
- D. What are the economic impacts?
- E. What are the benefits?
- F. What analysis of children's environmental health did we conduct?

V. Request for Comments

VI. Statutory and Executive Order Reviews

- A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review
- B. Executive Order 14192: Unleashing Prosperity Through Deregulation
- C. Paperwork Reduction Act (PRA)
- D. Regulatory Flexibility Act (RFA)
- E. Unfunded Mandates Reform Act (UMRA)
- F. Executive Order 13132: Federalism
- G. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments
- H. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks
- I. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use
- J. National Technology Transfer and Advancement Act (NTTAA)

I. General Information

A. Does this action apply to me?

The source category that is the subject of this proposal is Secondary Lead Smelting regulated under 40 CFR part 63, subpart X. The North American Industry Classification System (NAICS) code for the secondary lead smelting industry is 331492. This category and NAICS code are not intended to be exhaustive but rather provide a guide for readers regarding the entities that this proposed action is likely to affect. The proposed standards, if finalized, would be directly applicable to the affected sources. Federal, state, local, and Tribal government entities do not own or operate sources that would be affected by this proposed action. As defined in the *Initial List of Categories of Sources Under Section 112(c)(1) of the Clean Air Act Amendments of 1990* (57 FR 31576; July 16, 1992) and *Documentation for Developing the Initial Source Category List, Final Report* (EPA-450/3-91-030, July 1992), the secondary lead smelting source

This document is a prepublication version, signed by EPA Administrator, Lee Zeldin on 09/29/2025. We have taken steps to ensure the accuracy of this version, but it is not the official version.

category consists of any facility engaged in the production of purified lead from lead scrap by melting and separating lead from metal and non-metallic contaminants and by reducing lead compounds to elemental lead. The category includes processes associated with secondary lead smelting such as battery breaking, smelting in reverberatory blast, rotary and electric furnaces, refining, alloying, and casting.

B. Where can I get a copy of this document and other related information?

In addition to being available in the docket, an electronic copy of this action is available on the Internet. In accordance with 5 U.S. Code (U.S.C.) 553(b)(4), a brief summary of this rule may be found at <https://www.regulations.gov>, Docket ID No. EPA-HQ-OAR-2025-0078. Following signature by the EPA Administrator, the EPA will post a copy of this proposed action at <https://www.epa.gov/stationary-sources-air-pollution/secondary-lead-smelting-national-emissions-standards-hazardous-air>. Following publication in the *Federal Register*, the EPA will post the *Federal Register* version of the proposal and key technical documents at this same website.

A memorandum showing the rule edits that would be necessary to incorporate the changes to 40 CFR part 63, subpart X proposed in this action is available in the docket (Docket ID No. EPA-HQ-OAR-2025-0078). Following signature by the EPA Administrator, the EPA also will post a copy of this document to <https://www.epa.gov/stationary-sources-air-pollution/secondary-lead-smelting-national-emissions-standards-hazardous-air>.

II. Background

A. What is the statutory authority for this action?

This document is a prepublication version, signed by EPA Administrator, Lee Zeldin on 09/29/2025. We have taken steps to ensure the accuracy of this version, but it is not the official version.

The statutory authority for this action is provided by CAA section 112, as amended (42 U.S.C. 7412). CAA section 112 establishes a two-stage regulatory process to develop standards for emissions of HAP from stationary sources. Generally, the first stage involves establishing technology-based standards that reflect the maximum achievable control technology (MACT) or an appropriate alternative.¹ The second stage involves evaluating those standards within eight years to determine whether additional standards are needed to address any remaining risk associated with HAP emissions.² This second stage is commonly referred to as the “residual risk review.” In addition to the residual risk review, CAA section 112 also requires the EPA to review the standards every eight years and “revise as necessary” taking into account “developments in practices, processes, or control technologies.”³ This review is commonly referred to as the “technology review,” and is the subject of this proposal unless otherwise indicated. The discussion that follows identifies the most relevant statutory sections and briefly explains the contours of the methodology used to implement these statutory requirements.

In the first stage of CAA section 112 standard-setting process, the EPA promulgates technology-based standards under CAA section 112(d) for categories of sources identified as emitting one or more of the HAP listed in CAA section 112(b). Sources of HAP emissions are either major sources or area sources, and CAA section 112 establishes different requirements for major source standards and area source standards. “Major sources” are those that emit or have the potential to emit 10 tons per year (tpy) or

¹ 42 U.S.C. 7412(d)(1)-(4).

² 42 U.S.C. 7412(f)(2).

³ *Id.* 7412(d)(6).

more of a single HAP or 25 tpy or more of any combination of HAP.⁴ All other sources are “area sources.”⁵ For major sources, CAA section 112(d)(2) provides that the technology-based NESHAP must reflect the maximum degree of emission reductions of HAP achievable (after considering cost, energy requirements, and non-air quality health and environmental impacts). These standards are commonly referred to as MACT standards. CAA section 112(d)(3) also establishes a minimum control level for MACT standards, known as the MACT “floor,” based on emission controls achieved in practice by the best performing sources. In certain instances, as provided in CAA section 112(h), the EPA may set work practice standards in lieu of numerical emission standards. The EPA also considers control options that are more stringent than the floor.⁶ Standards more stringent than the floor are commonly referred to as “beyond-the-floor” standards. For area sources, CAA section 112(d)(5) allows the EPA to set standards based on generally available control technologies or management practices (GACT standards) in lieu of MACT standards. For categories of major sources and any area source categories subject to MACT standards, the second stage focuses on identifying and addressing any remaining (*i.e.*, “residual”) risk within eight years pursuant to CAA section 112(f) and concurrently conducting a technology review pursuant to CAA section 112(d)(6). For categories of area sources subject to GACT standards, there is no requirement to address residual risk, but, similar to the major source categories, the technology review is required every eight years.⁷

⁴ *Id.* 7412(a)(1).

⁵ *Id.* 7412(a)(2).

⁶ *Id.* 7412(d)(2).

⁷ *Id.* 7412(d)(6).

CAA section 112(d)(6) requires the EPA to review standards promulgated under CAA section 112 and revise them “as necessary (taking into account developments in practices, processes, and control technologies)” no less often than every eight years. In conducting this review, which we call the “technology review,” the EPA is not required to recalculate the MACT floors that were established in earlier rulemakings.⁸ The EPA may consider cost in deciding whether to revise the standards pursuant to CAA section 112(d)(6).⁹

B. What is this source category and how does the current NESHAP regulate its HAP emissions?

The secondary lead smelting source category is defined as any facility at which lead-bearing scrap materials (typically but not limited to lead acid batteries) are recycled by smelting into elemental lead or lead alloys.¹⁰ The Secondary Lead Smelting NESHAP applies to major and area sources. The affected source for this subpart is any of the following sources at a secondary lead smelter: blast, reverberatory, rotary, and electric furnaces; refining kettles; agglomerating furnaces; dryers; process fugitive emissions sources; buildings containing lead bearing materials; and fugitive dust sources.¹¹ The secondary lead smelting process consists of (1) breaking lead-acid batteries and separating the lead-bearing materials from the other materials including plastic and acid electrolyte; (2) melting lead metal and reducing lead compounds to lead metal in the smelting furnace; and (3) refining and alloying the lead to customer specifications.

⁸ *Ass’n of Battery Recyclers, Inc. v. EPA*, 716 F.3d 667 (D.C. Cir. 2013); *Natural Resources Defense Council (NRDC) v. EPA*, 529 F.3d 1077, 1084 (D.C. Cir. 2008).

⁹ 42 U.S.C. 7412(d)(2), (6); *Ass’n of Battery Recyclers*, 716 F.3d at 673-74.

¹⁰ 40 CFR 63.542.

¹¹ 40 CFR 63.541.

secondary lead smelting releases HAP as process, process fugitive, and fugitive dust emissions. Process emissions are the exhaust gases from feed dryers and from blast, reverberatory, rotary, and electric furnaces. The HAP in process emissions are primarily composed of metals, including lead compounds with arsenic, cadmium, and other metals. The emissions may also include organic compounds that result from incomplete combustion of coke that is charged to the smelting furnaces as a fuel or fluxing agent, natural gas, and/or small amounts of plastics or other materials that get fed into the furnaces along with the lead bearing materials. Process fugitive emissions occur at various points during the smelting process (such as during charging and tapping of furnaces) and are composed primarily of metal HAP. Fugitive dust emissions result from the entrainment of HAP in ambient air due to material handling, vehicle traffic, wind erosion from storage piles, and other various activities. Fugitive dust emissions are composed of metal HAP only.¹²

Secondary lead smelting accounts for more than half of all lead produced around the world and there are currently no operating primary lead smelting facilities in the United States. The United States total lead consumption has remained relatively constant from 2020 to 2024, averaging 1,500 thousand metric tons. In 2024, an estimated 1,000 thousand metric tons of secondary lead was produced, an amount equivalent to 71 percent of apparent domestic consumption.¹³ Nearly all secondary lead is recovered from old scrap, mostly lead-acid batteries. Since the 2012 rulemaking, five secondary lead

¹² *Secondary Lead Smelting Background Information Document for Proposed Standards*, Docket ID No. A-92-43, III-B-004, June, 1992.

¹³ U.S. Geological Survey. (2025). Mineral Commodity Summaries, Lead
This document is a prepublication version, signed by EPA Administrator, Lee Zeldin on 09/29/2025. We have taken steps to ensure the accuracy of this version, but it is not the official version.

facilities have closed. We do not anticipate any new secondary lead smelters, as currently defined, to be built in the next few years.

The EPA originally promulgated the Secondary Lead Smelting NESHAP in 1995.¹⁴ In 2012, the EPA promulgated amendments to the Secondary Lead Smelting NESHAP to address the results of the RTR. As amended in 2012, the NESHAP specifies that facilities must limit emissions of lead compounds (as a surrogate for all non-mercury metal HAP) to an outlet concentration of 1.0 milligrams per dry standard cubic meter (mg/dscm) (0.00043 grains per dry standard cubic foot (gr/dscf)) and limit the flow-weighted average lead concentration to 0.20 mg/dscm (0.000087 gr/dscf) or less.^{15, 16} For process vents at new sources, the NESHAP limits lead compound emissions to 0.20 mg/dscm (0.000087 gr/dscf) or less.¹⁷ The Secondary Lead Smelting NESHAP also regulates total hydrocarbon (THC) as a surrogate for non-dioxin and furan organic HAP and imposes dioxins and furans (D/F) limits for reverberatory, electric, blast, and collocated blast and reverberatory furnaces.¹⁸ The NESHAP also requires that secondary lead facilities operate any sources of fugitive lead emissions within total enclosures that are maintained under negative pressure and vented to a control device and to conduct work practices to minimize fugitive dust emissions.¹⁹

C. What data collection activities were conducted to support this action?

¹⁴ 60 FR 32587 (June 23, 1995) (codified at 40 CFR part 63, subpart X).

¹⁵ 77 FR 556 (January 5, 2012).

¹⁶ 40 CFR 63.543(a).

¹⁷ *Id.* 63.543(b).

¹⁸ *Id.* 63.543(c)-(f) and Table 2 to 40 CFR part 63, subpart X.

¹⁹ 40 CFR 63.544-45.

To support this action, the EPA created a current list of secondary lead smelting facilities by updating the facility list developed to support the 2012 RTR. We referenced the National Emissions Inventory (NEI)²⁰ and confirmed the list with the secondary lead smelting industry association, the Association of Battery Recyclers (ABR). In November 2023, the EPA issued a CAA section 114 information request to six companies that collectively own ten of the 11 facilities in the source category.²¹ These companies were selected because they were operating, a majority of the source category and represented all furnace types and configurations. The CAA section 114 information request collected comprehensive information regarding process equipment, control technologies, point and fugitive emissions, and other aspects of facility operations. Additionally, as part of the CAA section 114 information request, we requested stack testing for certain emission sources (*e.g.*, rotary furnaces) and six months of fence-line monitoring for arsenic and lead. Responses not claimed as CBI by respondents and the list of facilities that are part of the secondary lead smelting source category are available in the docket for this action.²²

D. What other relevant background information and data are available?

To supplement the data and information obtained through the CAA section 114 information request, we reviewed the EPA's Reasonably Available Control Technology (RACT)/Best Available Control Technology (BACT)/Lowest Achievable Emission Rate (LAER) Clearinghouse (RBLC). The EPA established the RBLC to provide a central

²⁰ U.S. Environmental Protection Agency (Last Updated April 16, 2025). National Emissions Inventory (NEI): <https://www.epa.gov/air-emissions-inventories/national-emissions-inventory-nei>.

²¹ 42 U.S.C. 7414.

²² Docket ID No. EPA-HQ-OAR-2025-0078.

This document is a prepublication version, signed by EPA Administrator, Lee Zeldin on 09/29/2025. We have taken steps to ensure the accuracy of this version, but it is not the official version.

database of air pollution technology information (including technologies required in source-specific permits) to promote the sharing of information among permitting agencies and to aid in identifying future control technology options that might apply to numerous sources within a category or apply only on a source-by-source basis.²³ The EPA also reviewed facility operating permits issued by state regulatory agencies. We also examined regional data for the lead national ambient air quality standards (NAAQS) when evaluating fenceline monitoring for this source category. More information can be found in the *Clean Air Act Section 112(d)(6) Technology Review Memorandum for Secondary Lead Smelting* available in the docket for this rulemaking.²⁴ Finally, the EPA reviewed previous test reports obtained from a CAA section 114 information request in 2010 that were used to inform the 2012 RTR.

E. How does the EPA perform the technology review?

Our technology review primarily focuses on the identification and evaluation of developments in practices, processes, and control technologies that have occurred since the MACT standards were promulgated. Where we identify such developments, we analyze their technical feasibility, estimated costs, energy implications, and non-air environmental impacts.²⁵ We also consider the emission reductions associated with the potential application of each development. This analysis informs our decision whether it is “necessary” to revise the emissions standards.²⁶ In addition, we consider the

²³ U.S. Environmental Protection Agency. (Last updated Oct. 4, 2024). RACT/BACT/LAER Clearinghouse (RBLC) Basic Information: <https://www.epa.gov/catc/ractbactlaer-clearinghouse-rblc-basic-information>.

²⁴ Docket ID No. EPA-HQ-OAR-2025-0078.

²⁵ 42 U.S.C. 7412(d)(2).

²⁶ *Id.* 7412(d)(6).

appropriateness of applying controls to new sources versus retrofitting existing sources.

For this exercise, we consider any of the following to be a “development”:²⁷

- Any add-on control technology or other equipment that was not identified and considered during development of the original MACT standards;
- Any improvements in add-on control technology or other equipment (that were identified and considered during development of the original MACT standards) that could result in additional emissions reduction;
- Any work practice or operational procedure that was not identified or considered during development of the original MACT standards;
- Any process change or pollution prevention alternative that could be broadly applied to the industry and that was not identified or considered during development of the original MACT standards; and
- Any significant changes in the cost (including cost effectiveness) of applying controls (including controls the EPA considered during the development of the original MACT standards).

In addition to reviewing the practices, processes, and control technologies that were considered at the time we last updated the NESHAP, we review a variety of data sources in our investigation of potential practices, processes, or controls to consider.

²⁷ 76 FR 29032, 29047-29048 (May 19, 2011); *see also Nat’l Ass’n for Surface Finishing v. EPA*, 795 F.3d 1, 11 (D.C. Cir. 2015) (upholding EPA’s interpretation of what is considered “developments” under CAA section 112(d)(6) and deferring to EPA’s methodology and balancing decisions for a technology review under the *Skidmore* standard of review).

Pursuant to the D.C. Circuit's decision in *Louisiana Environmental Action Network (LEAN) v. EPA*, 955 F.3d 1088 (D.C. Cir. 2020), we also review available data to determine if there are any unregulated emissions of HAP within the source category and evaluate these data for use in developing new emission standards. The *LEAN* decision requires the EPA to address regulatory gaps when reviewing MACT standards, such as missing standards for listed air toxics known to be emitted from a major source category.

III. Analytical Results and Proposed Decisions

A. What are the results and proposed decisions based on our technology review, and what is the rationale for those decisions?

As described in section II.E of this preamble, the EPA's technology review focused on the identification and evaluation of potential developments in practices, processes, and control technologies that have occurred since the NESHAP was last updated in 2012. In conducting the technology review, the EPA reviewed and considered several sources of information to determine whether there have been developments in practices, processes, and control technologies as discussed in sections II.C and II.D of this preamble. Pursuant to CAA section 112(d)(6), we identified wet electrostatic precipitators (WESPs) and fence-line monitoring as the most relevant potential developments in practices, processes, or control technologies for consideration in this action. We did not identify any cost-effective developments in practices, processes, or control technologies that achieve greater HAP emission reductions beyond the emission reductions the NESHAP already requires; therefore, we are not proposing any changes to the Secondary Lead Smelting NESHAP based on our technology review. Information on additional technologies reviewed can be found in the memorandum titled: *Clean Air Act*

Section 112(d)(6) Technology Review Memorandum for Secondary Lead Smelting

available in the docket for this rulemaking.²⁸ The EPA is soliciting comment whether we should consider any additional developments not addressed here or in the technical memorandum (Question #1).

1. WESPs

The main emission sources at secondary lead smelting facilities are process vents. Process vents route process and process fugitive emissions to particulate matter (PM) control devices from blast, reverberatory, rotary, and electric furnaces; refining kettles; agglomerating furnaces; dryers; process fugitive emissions sources; buildings containing lead bearing materials; and fugitive dust sources. For existing sources, facilities must maintain the concentration of lead compounds in any process vent gas at or below 1.0 mg/dscm and the flow-weighted average concentration of lead compounds in vent gases from the entire secondary lead smelting facility at or below 0.20 mg/dscm.²⁹ Typical controls at secondary lead smelting facilities include baghouses (often combined with high-efficiency particulate air (HEPA) filters), WESPs, wet scrubbers, afterburners, and dry lime scrubbers.

In the 2012 RTR, the EPA evaluated the addition of WESPs on the outlet of baghouses as a potential control technology for metal HAP emissions. At that time, one out of the then 15 existing facilities had installed a WESP. This approach involves placing a WESP on the outlet of a baghouse for further control of metal HAP emissions and under optimal conditions, can provide an estimated control efficiency of greater than

²⁸ Docket ID No. EPA-HQ-OAR-2025-0078.

²⁹ 40 CFR 63.543(a).

This document is a prepublication version, signed by EPA Administrator, Lee Zeldin on 09/29/2025. We have taken steps to ensure the accuracy of this version, but it is not the official version.

99 percent. Current emissions limits for existing facilities reflect reductions achievable using baghouses, which typically achieve 99 percent control. Currently, three out of the now 11 existing sources have added WESPs. Collectively, these three facilities represent a quarter of the source category. In the 2012 RTR, the EPA estimated that installing WESPs would result in total capital costs to the industry of \$400 million and a total annualized cost of \$55 million with a cost effectiveness of about \$4.0 million per ton of metal HAP emissions reduced (mainly lead compounds) in 2009 dollars.

As part of this review, now that nearly a quarter of the source category utilizes WESPs to control metal HAP emissions, we have updated our cost estimates for installing WESPs at the 8 remaining facilities that do not currently operate them. Updated estimates for installation of WESPs would result in total capital costs of \$621 million and a total annualized cost of \$73 million for existing sources and achieve about 3.8 tpy in lead reductions (the surrogate for metal HAP). We estimate the cost effectiveness would be approximately \$19 million per ton of lead reduced (in 2024 dollars).³⁰ Based on the cost estimated for the existing sources and applying this estimated cost to a potential new source, the estimated costs to install WESPs are \$78 million in capital costs and annualized costs of \$9 million, and their installation would achieve approximately 0.5 tpy of lead reduction, with cost effectiveness of \$19 million per ton of lead reduced. In the 2012 RTR, we considered \$1.3 million per ton (in 2009 dollars) of lead reduced as cost-

³⁰ CAA section 112(d)(6) does not address cost consideration in setting MACT floors under CAA section 112(d)(3); conversely, CAA section 112(d)(2) explicitly authorizes cost consideration in other aspects of standard setting. However, the statute does not prescribe a methodology for the EPA's consideration of costs under 112(d). Where cost is a consideration for technology reviews under CAA section 112(d)(6), EPA has historically used cost-effectiveness (cost/ton-reduced) in supporting analyses. *Ass'n of Battery Recyclers*, 716 F.3d at 673-74.

effective for existing facilities. Based on this analysis, we are not proposing an emission limit reflecting a baghouse routed to WESPs for new or existing sources due to the high cost and poor cost effectiveness. The full analysis for a baghouse routed to a WESP can be found in the memorandum titled *Clean Air Act Section 112(d)(6) Technology Review Memorandum for Secondary Lead Smelting* in the docket of this rulemaking.³¹ The EPA is soliciting comment on the determination that a baghouse routed to a WESP is not cost-effective (Question #2).

2. Fenceline monitoring

In this technology review, we evaluated fenceline monitoring as a development in practices or procedures. Fenceline monitoring is the practice by which monitors are placed around the perimeter of a facility to measure the concentration of certain pollutants. Generally, the EPA has found fenceline monitoring can sometimes be an effective tool when fugitive or ground level releases are significant, or where we have identified considerable uncertainties in HAP emissions estimates from fugitive emission sources. When required in conjunction with root cause analysis and corrective action, fenceline monitoring can potentially reduce uncertainties associated with fugitive emissions estimation and characterization. Other considerations include the types of pollutants that are emitted, the availability of fenceline monitoring measurement methods for the key pollutants, other sources of the key pollutant near the fenceline, proximity of residences or other areas where people could be exposed to emissions at or near facility fencelines, and the other types of monitoring that are already required or are being considered. For the secondary lead smelting source category, we are not proposing

³¹ Docket ID No. EPA-HQ-OAR-2025-0078.

This document is a prepublication version, signed by EPA Administrator, Lee Zeldin on 09/29/2025. We have taken steps to ensure the accuracy of this version, but it is not the official version.

fenceline monitoring requirements. For the reasons discussed below, we are not proposing that fenceline monitoring requirements are “necessary” pursuant to CAA section 112(d)(6).

In the 2012 RTR, the Agency finalized a requirement for facilities to operate sources of fugitive lead emissions within total enclosures that are maintained under negative pressure and vented to a PM control device to address fugitive metal HAP emissions that drove the unacceptable levels of risk identified by the Agency.³² Our evaluation during this current technology review determined that the total enclosure requirements and the stack and flow weighted average lead limits promulgated in the 2012 RTR have significantly reduced ground level fugitives and allow us to accurately estimate lead emissions from the source category based on stack test data. The CAA section 114 information request for fenceline monitoring data confirmed our 2012 estimates that lead levels at the fenceline would be below the lead NAAQS 3-month rolling average limit of 0.15 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) for most facilities. The CAA section 114 data showed lead levels at the fenceline were well below the NAAQS for all but one facility, which is currently under a state consent agreement. This represents significant improvement from data collected for the 2012 RTR, where nine of fifteen facilities were modeled to be above the NAAQS at the fenceline pre-control. While there is no NAAQS for arsenic, the EPA compared measured arsenic concentrations to the chronic inhalation reference exposure level (REL), which is used to estimate population risk due to inhalation of arsenic. All average daily arsenic concentrations were below the chronic inhalation REL of $0.015 \mu\text{g}/\text{m}^3$. Additionally, we

³² 40 CFR 63.544(a).

compared the fenceline monitoring results to the operating lead NAAQS monitors and found the results aligned. The community NAAQS monitors near most facilities detect fugitive and stack emissions and are as effective if not more effective than fenceline monitors. Additionally, secondary lead smelting facilities are required to have bag leak detection systems³³ and comply with differential pressure monitoring³⁴ requirements, which identify potential situations of excess lead emissions and assist with root cause analysis and corrective action more quickly than a fenceline monitoring program.

Finally, the EPA does not have a fenceline monitoring method that has been proposed or promulgated for metals. If the EPA were to require fenceline monitoring in a rule for metals, facilities would be unable to conduct such monitoring until a method has been promulgated. To conduct the CAA section 114 information request sampling, we relied on a common ambient monitoring method for multi-metals for the analysis.^{35,36} While these methods are robust and appropriate for ambient trend applications, the EPA needs to further investigate and revise these approaches for a stationary source regulatory program to ensure improved precision and accuracy in the method. This is similar to how EPA Method 327³⁷ was developed from TO-15A.

³³ 40 CFR 63.548 (e).

³⁴ 40 CFR 63.548 (k).

³⁵ Reference Method for the Determination of Suspended Particulates in the Atmosphere (High Volume Method). 40 CFR part 50, appendix B.

³⁶ U.S. Environmental Protection Agency. (Last updated June 1999). IO Compendium Method IO-3.5: Compendium of Methods for the Determination of Inorganic Compounds in Ambient Air: Determination of Metals in Ambient Particulate Matter Using Inductively Coupled Plasma/Mass Spectrometry (ICP/MS): <https://www.epa.gov/esam/epa-io-inorganic-compendium-method-io-35-determination-metals-ambient-particulate-matter-using#:~:text=The%20EPA%20IO%203.5%20method%20is%20a,total%20metal%20component%20in%20prepared%20air%20samples.>

³⁷ 88 FR 25413 (April 25, 2023). 40 CFR part 63, appendix A.

This document is a prepublication version, signed by EPA Administrator, Lee Zeldin on 09/29/2025. We have taken steps to ensure the accuracy of this version, but it is not the official version.

The EPA is not proposing to include fenceline monitoring in this rulemaking because the process fugitives are well controlled due to the total enclosure requirements of the NESHAP, several monitoring programs are already in place, such as bag leak detection systems at secondary lead facilities and NAAQS monitors in many communities surrounding secondary lead smelters, and currently there is not a promulgated fenceline monitoring method for metals.³⁸ The EPA is soliciting comment on our determination not to propose fenceline monitoring for the secondary lead smelting source category (Question #3).

B. What other actions are we proposing, and what is the rationale for those actions?

In this proposal, we are proposing actions to address unregulated HAP pursuant to the D.C. Circuit's decision in *LEAN*, various technical matters, and outstanding petition issues.

Based on a review of available information pursuant to the *LEAN* decision, we are proposing the following: an emission limit based on MACT for THC (as a surrogate for non-D/F organic HAP) and D/F for collocated rotary and reverberatory furnaces; to add a definition for collocated rotary and reverberatory furnaces; THC as a surrogate for carbonyl sulfide (COS) emissions; and that hydrochloric acid (HCl) and chlorine (Cl₂) emissions are so minimal as to be considered *de minimis*, and therefore the EPA is not requiring standards for those pollutants.

Additionally, we are proposing a 24-month performance test extension request will be deemed approved under certain circumstances as outlined in section III.B.3. We

³⁸ For more information regarding fenceline monitoring see the memorandum titled: *Clean Air Act Section 112(d)(6) Technology Review Memorandum for Secondary Lead Smelting* available in the docket for this rulemaking.

This document is a prepublication version, signed by EPA Administrator, Lee Zeldin on 09/29/2025. We have taken steps to ensure the accuracy of this version, but it is not the official version.

are also proposing to increase the averaging time for differential pressure monitors and the inclusion of an alternative monitoring option for confirming total enclosure compliance.

We are also addressing outstanding petition issues from the 2012 RTR. In response to the petitions, we are taking comment on our conclusion in the 2012 RTR that the Secondary Lead Smelting NESHAP provides an ample margin of safety to protect public health and on two additional provisions.

Finally, we are proposing to remove affirmative defense provisions and revise startup, shutdown, and malfunction (SSM), and electronic recordkeeping and reporting requirements. The results and proposed decisions, as well as the rationale for those decisions, are presented below.

1. Proposed actions to address five unregulated HAP for both new and existing sources

As previously stated in section II.C of this preamble, while reviewing the NEI and previous rulemakings, the EPA identified HCl, Cl₂, and COS from all furnaces and THC and D/F from rotary furnaces as currently unregulated for this source category. The EPA included stack testing for these unregulated HAP as part of the CAA section 114 information request. As required by the D.C. Circuit's decision in *LEAN*, we are proposing to address unregulated HAP as discussed below.

a. THC & D/F emissions from rotary furnaces

As part of the 2012 RTR, the EPA promulgated THC and D/F limits for all furnace types except rotary furnaces. The EPA stated it was not adopting numerical limits for THC and D/F emissions from rotary furnaces, pending further data gathering and analysis for this furnace type. As part of the CAA section 114 information request, the

EPA required testing of the only rotary furnace in the source category. Based on this information request, the EPA received five THC and D/F test runs from the one operating rotary furnace. Upon review of the test and operational data, we determined that the rotary furnace normally operates as a batch process as opposed to a continuous process, and that the five individual test runs represent periods within a batch, and not from the same batch. Therefore, the data provided from the CAA section 114 information request do not truly represent the normal operation of the rotary furnace, which ideally would measure at least three separate batch test runs of 4 hours each (or the entire length of the complete batch cycle).

Based on the data submitted in response to the CAA section 114 information request, any proposed standards for THC and D/F from the rotary furnace alone would be determined from an incomplete batch that would not be considered representative of normal operation. When calculating variability using a limited dataset (in this case, one batch) the effect of variability can be substantial. The EPA also has previous test data from this rotary furnace from the 2012 RTR. However, since 2012 the facility has made substantial changes to their processes and added additional controls. Therefore, we determined that the previous test data are also not representative of current emissions. In addition, this rotary furnace is not a “stand-alone” furnace. That is, the emissions are controlled through multiple control devices, and the rotary furnace emissions are combined downstream with emissions from other sources at the facility, prior to entering these control devices. In order to propose proper and representative THC and D/F standards from the rotary furnace, additional THC and D/F testing would need to be conducted from the rotary furnace with at least three complete batches, from start to

finish, so that any process variability is included and accounted for in the test data.³⁹

When we determined that the data did not include at least three separate batches, we were unable to request additional testing prior to this proposal.

However, the EPA does have sufficient data to establish standards for the combined emissions of this rotary furnace and continuously operating reverberatory furnaces, using stack measurements taken at the outlet of the control device (*i.e.*, the WESP stack) that control HAP emissions from these units. Therefore, instead of a stand-alone rotary furnace limit, we are proposing to set a collocated rotary and reverberatory furnace limit of 34 parts per million by volume (ppmv) of THC and 0.28 ng/dscm D/F, expressed as toxic equivalency quotient (TEQ) corrected to 7 percent oxygen (*i.e.*, at 7 percent O₂). We are also proposing for D/F testing that a minimum sample volume of 3.0 dscm be collected for each run. We calculated the proposed MACT floor-based emissions limits using the standard MACT floor development procedures, which use the 99 percent upper prediction limit (UPL) to incorporate variability demonstrated by the available test data from the stack outlet of the WESP.

While these data include portions of the batch process from the rotary furnace, we believe these limits better represent emissions from actual operations, since the testing was performed at the location where the combined emissions emit to the atmosphere after

³⁹ In a given CAA section 114 information collection request (ICR), the EPA requires that for batch process operations, sample for a minimum sample time of 4 hours or the entire length of the complete batch cycle, whichever is shorter. For batch cycles longer than 4 hours, the runs should be spaced to represent the expected range of batch emissions (for example: high, average, and low). For the 2024 CAA section 114 test program, only one process batch was represented in the test data. Moreover, the five THC test runs were only 1-hour in length each.

all control devices, and while the facility was also continuously (and normally) operating its reverberatory furnace and periodically (and normally) operating its rotary furnace.

We expect the one facility where the collocated rotary and reverberatory limits apply can meet the proposed THC and D/F limits without installing any new pollution control devices. We anticipate only testing, recordkeeping, and reporting costs will be incurred to comply with the proposed THC and D/F limits. The EPA is also proposing to add a new definition at 40 CFR 63.542 for “collocated rotary and reverberatory furnaces” to mean operation of a rotary furnace and a reverberatory furnace at the same location, where the vent streams of the furnaces are mixed.

In the 2012 RTR, we considered beyond-the-floor options to further reduce emissions of D/F and THC from blast furnaces but did not finalize them as they were not cost-effective and would likely lead to an increase in other pollutants (*i.e.* NO_x and CO₂).⁴⁰ When considering beyond-the-floor D/F and THC limits for collocated rotary and reverberatory furnaces, the EPA found that the facility currently uses its rotary furnace to process slag after it has been processed in the reverberatory furnace. Due to the plastics separation work practices already in place and the pre-processing of slag in the reverberatory furnace, most D/F emissions from the rotary furnace are below the detection limit, which is the lowest quantifiable value. However, we found the rotary only data set to be insufficient for setting standards and, instead, are proposing to regulate the collocated rotary and reverberatory furnace limit. However, we found this data set to be insufficient for setting standards and, instead, are proposing to regulate the collocated rotary and reverberatory furnaces. D/F limits are already in place for the reverberatory

⁴⁰ Docket ID No. EPA-HQ-OAR-2011-0344-0150.

This document is a prepublication version, signed by EPA Administrator, Lee Zeldin on 09/29/2025. We have taken steps to ensure the accuracy of this version, but it is not the official version.

furnaces, and we are proposing to add an additional limit to include D/F from rotary furnaces. We did not identify any beyond-the-floor options that would lower the D/F limits from collocated rotary and reverberatory furnaces. For THC, the facility already has several control devices in place, including a scrubber. We did not identify any new technically feasible, cost-effective control options to obtain any additional reductions for THC. More information can be found in the memorandum: *Summary of MACT Floor and Beyond-the-Floor Analysis for the Secondary Lead Smelting Source Category* available in the docket of this rulemaking.

The EPA is soliciting comment on the proposed THC and D/F limits and beyond-the-floor rationale (Question #4) and definition for collocated rotary and reverberatory furnaces (Question #5). THC is a surrogate for non-D/F organic HAP, as stated in previous secondary lead rulemakings and as proposed below for COS.⁴¹ The destruction of THC through incineration is strongly correlated with the destruction of non-D/F organic HAP compounds, and COS can also be controlled using thermal controls.

Additionally, we are soliciting comment on setting the THC and D/F standards pursuant to CAA section 112(d)(6) rather than setting the THC and D/F standards exclusively pursuant to CAA section 112(d)(2) and (3) (Question #6). Although the D.C. Circuit held in *LEAN* that the EPA is required to address previously unregulated HAP from major sources during a CAA section 112(d)(6) technology review, it is not entirely clear how that process functions under the statutory text. In this instance, setting the standards under CAA section 112(d)(6) would result in essentially the same standards because the performance of the only collocated rotary and reverberatory furnace would

⁴¹ 60 FR 32587 (June 23, 1995).

This document is a prepublication version, signed by EPA Administrator, Lee Zeldin on 09/29/2025. We have taken steps to ensure the accuracy of this version, but it is not the official version.

be used to establish the standards, resulting in the same values as the standards we are proposing under CAA sections 112(d)(2) and (3). The difference in the approach would be that we would not be constrained to any minimum stringency level and would, therefore, not conduct a beyond-the-floor analysis. We would not anticipate any cost or impact differences associated with setting the THC and D/F limits pursuant to CAA section 112(d)(6) as compared to CAA section 112(d)(2) and (3). The estimated costs would be for testing, recordkeeping, and reporting.

b. COS

During the NEI review, the EPA identified COS as a HAP that might be emitted and is not currently regulated. The CAA section 114 information request required COS testing from four facilities to determine whether COS was emitted by the source category. Three of the four facilities emitted a measurable amount of COS with one facility below the detection limit. To address this unregulated HAP, we are proposing to use THC as a surrogate for COS. Thermal control technology used to control THC simultaneously controls COS as well. In addition, THC is easily measured, and THC testing is already required for the source category. The EPA is soliciting comment on proposing THC as a surrogate for COS (Question #7).

c. HCl/Cl₂

In the 1994 Secondary Lead NESHAP proposed rule, the EPA estimated secondary lead facilities emitted 806 tpy of HCl from 16 facilities. In response, the EPA proposed HCl and Cl₂ emission limits.⁴² The EPA received several comments on that

⁴²59 FR 29754, June 9, 1994 (“All smelting furnaces that process broken batteries are potential sources of HCl and Cl₂ [chloride] emissions. Many used lead-acid batteries

proposal indicating that the feasibility of emission controls was overstated, additional controls would be needed to achieve the proposed emission standards, and polyvinyl chloride (PVC), the primary source of HCl and Cl₂ emissions, was being phased out as a separator material in batteries. Due to that new information in these comments, the EPA did not finalize emission limits for HCl and Cl₂ at that time.⁴³

During the 2012 RTR, the EPA estimated HCl and Cl₂ emissions from the source category had been reduced to about 2 tpy and, therefore, did not propose any emission limits at that time.⁴⁴ While reviewing emissions inventories for this rulemaking, the EPA found that secondary lead smelting facilities were still emitting small amounts of HCl and Cl₂. Through a CAA section 114 information request, the EPA requested testing from three facilities to confirm whether and how much HCl and Cl₂ are still emitted from the source category. The testing results, supplemented with data collected during the 2012 RTR from an additional 5 facilities, showed that the source category now emits only 1.5 tpy of HCl and 0.2 tpy of Cl₂, in total, from 11 facilities. The EPA proposes that these very small amounts of HCl and Cl₂ emitted are too trivial to justify requiring additional

contain polyvinyl chloride (PVC) plastic separators between the battery grids, although the use of PVC plastic as a separator material has been discontinued by most battery manufacturers. These separators are typically not removed from the lead bearing parts of the battery during the battery breaking and separation process. When the PVC plastic is burned in the smelting furnace, the chlorides are released as HCl, Cl₂, and chlorinated hydrocarbons.”; 60 FR 19556, April 11, 1995; *Secondary Lead Smelting Background Information Document for Promulgated Standards NESHAP*, pages 2-41-2-46 and Appendix A.

⁴³ 60 FR 32587, 32593, June 23, 1995 (explaining that the “EPA is reasonably confident that the predicted decline in PVC separators in secondary lead smelter feedstock will continue and PVC will be present in only trace quantities by the 1997 effective date of this rule.”).

⁴⁴ 77 FR 556 (January 5, 2012).

controls and thus amount to *de minimis* levels that Congress did not intend to subject to the imposition of controls under CAA section 112.

The EPA recognizes that the D.C. Circuit has emphasized that the Agency has a “clear statutory obligation to set emission standards for each listed HAP” and must address previously unregulated pollutants known to be emitted by a source category during a technology review.⁴⁵ While the D.C. Circuit’s *LEAN* decision focused on the broad question whether the EPA is required to address unregulated pollutants generally during a CAA section 112(d)(6) technology review. The decision did not address the narrower question whether CAA section 112 displaces the ordinary background rule that a general statutory requirement does not encompass *de minimis* concerns unless otherwise indicated under the circumstances.

As the Supreme Court explained in *Wisconsin Department of Revenue v. William Wrigley, Jr., Co.*, “the venerable maxim *de minimis non curat lex* (‘the law cares not for trifles’) is part of the established background of legal principles against which all enactments are adopted, and which all enactments (absent contrary indication) are deemed to accept.”⁴⁶ The Court further explained that “whether a particular activity is a *de minimis* deviation from a prescribed standard must, of course, be determined with reference to the purpose of the standard.”⁴⁷ In *Alabama Power Company v. Costle*, a CAA case, the D.C. Circuit held that categorical exemptions from the requirements of a statute may be permissible “as an exercise of agency power, inherent in most statutory

⁴⁵ *Nat’l Lime Ass’n v. EPA*, 233 F.3d 625, 634 (D.C. Cir. 2000); *see also LEAN*, 955 F.3d at 1092.

⁴⁶ 505 U.S. 214, 231 (1992).

⁴⁷ *Id.* at 232.

schemes, to overlook circumstances that in context may fairly be considered *de minimis*.”⁴⁸ This principle derives from the commonplace notion that “the law does not concern itself with trifling matters.”⁴⁹ The ability to recognize *de minimis* regulatory issues “is not an ability to depart from the statute, but rather a tool to be used in implementing the legislative design.”⁵⁰

The EPA does not dispute that CAA section 112(d)(1) requires the Administrator to “promulgate regulations establishing emission standards for each category or subcategory of major sources and area sources of [HAP] listed for regulation pursuant to section (c) of this section.”⁵¹ However, statutory context makes clear that Congress did not intend the EPA to relentlessly regulate trivial amounts of HAP. For example, CAA section 112(a)(1) defines a major source as one “that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any [HAP] or 25 tons per year or more of any combination of [HAP].”⁵² Sources with fewer emissions are defined as area sources, which the EPA need only regulate if the Administrator finds that they 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.”⁵³ And

⁴⁸ 636 F.2d 323, 360 (D.C. Cir. 1979).

⁴⁹ *Id.*

⁵⁰ *Id.*; see also *Citadel Sec. v. SEC*, 45 F.4th 27, 36 (D.C. Cir. 2022) (upholding agency decision as reasonable and supported by this principle); *Shays v. FEC*, 414 F.3d 76, 113-14 (D.C. Cir. 2005) (“Predicated on the notion that the Congress is always presumed to intend that pointless expenditures of effort be avoided, such authority is inherent in most statutory schemes, by implication.”) (internal quotation marks omitted).

⁵¹ 42 U.S.C. 7412(d)(1).

⁵² *Id.* 7412(a)(1).

⁵³ *Id.* 7412(c)(3). CAA section 112(c)(3) requires that the EPA shall “list, based on actual or estimated aggregate emissions of a listed pollutant or pollutants, sufficient categories or subcategories of area sources to ensure that area sources representing 90 percent of the

once regulated, the EPA may elect to promulgate standards for area sources “which provide for the use of generally available control technologies or management practices,” as opposed to more stringent MACT standards.⁵⁴

Moreover, additional considerations support the conclusion that Congress did not intend CAA section 112 to require regulation of *de minimis* emissions under the circumstances CAA section 112(e)(2) expressly authorizes the EPA to determine “priorities” for developing standards under section 112(d), including based on the quantity of emissions.⁵⁵ The EPA proposes that CAA section 112 does not include the contrary language expected for an intentional departure from the ordinary *de minimis* background principle and that application of that principle here is consistent with the design and objective of CAA section 112 to reduce emission of HAP that endanger public health and welfare. In doing so, the EPA is also mindful of the Supreme Court’s admonition that because “[l]egislation is, after all, the art of compromise ... no statute yet known ‘pursues its [stated] purpose[] at all costs.’”⁵⁶

Here, the secondary lead smelting source category, currently consisting of 11 major and area source facilities, emit only 1.5 tpy of HCl and 0.2 tpy of Cl₂. Considered in isolation, these emissions are nowhere near the 10 tpy pollutant-specific and 25 tpy aggregate thresholds that trigger major source regulation. And as further discussed, the

area source emissions of the 30 [HAP] that present the greatest threat to public health in the largest number of urban areas are subject to regulation under this section.” HCl and Cl₂ are not among the EPA’s 30 listed urban air toxics (*see* <https://www.epa.gov/haps/urban-air-toxic-pollutants>).

⁵⁴ 42 U.S.C. 7412(d)(5).

⁵⁵ *Id.* 7412(e)(2), (e)(2)(B).

⁵⁶ *Henson v. Santander Consumer USA, Inc.*, 582 U.S. 79, 89 (2017) (quoting *Rodriguez v. United States*, 480 U.S. 522, 525-26 (1987) (per curiam)).

trivial amounts of HCl and Cl₂ estimated to be emitted from this source category do not amount to a level that presents or risks an adverse effect to human health or the environment. Thus, even in light of the *LEAN* decision, the EPA proposes that Congress did not intend CAA section 112 to abrogate the ordinary background principle that *de minimis* concerns do not fall within the scope of general legislative requirements under the circumstances.

As noted above, in CAA section 112(e)(2) Congress established criteria for the EPA to consider “[i]n determining priorities for promulgating standards under subsection (d).”⁵⁷ These criteria include “the known or anticipated adverse effects of such pollutants on public health and the environment; the quantity and location of emissions or reasonably anticipated emissions of [HAP] that each category or subcategory will emit”.⁵⁸ Thus, in prioritizing the EPA’s work to reduce HAP emissions, Congress intended the EPA to focus on the pollutants emitted in the highest quantities with the greatest impact. Therefore, for certain pollutants emitted in trivial quantities with low impact, such as HCl and Cl₂ for this source category, EPA finds that those emissions would be the most likely to qualify for *de minimis* treatment under the legislative design. However, EPA would evaluate whether *de minimis* treatment for those emissions would continue to be appropriate during subsequent technology reviews.

⁵⁷ 42 U.S.C. 7412(e)(2).

⁵⁸ *Id.*

Applying those criteria here, the EPA proposes to find that both support a finding that emissions from HCl and Cl₂ from secondary lead smelting facilities qualify as *de minimis*.⁵⁹

First, secondary lead smelting facilities emit HCl and Cl₂ in very low quantities. With regards to HCl, the EPA estimates that the average amount emitted per facility is 0.13 tpy, and no single facility emits more than 1 tpy. For Cl₂ we estimate the average amount emitted per facility is 0.017 tpy, and no single facility emits more than 0.025 tpy. In addition to the work practices, several facilities currently have control devices in place that may capture and control HCl and Cl₂ in addition to reducing other target pollutants. Finally, the EPA does not expect HCl and Cl₂ emissions to increase over time because older batteries with PVC will continue to leave circulation and thus no longer be recycled.⁶⁰

Second, the impacts of HCl and Cl₂ from this source category are very low. Neither HCl nor Cl₂ persist in the environment for long periods of time, and they do not transform into other HAP⁶¹. Neither HCl nor Cl₂ can bioaccumulate; that is, they do not have the ability to build up in the food chain to levels that are harmful to human health

⁵⁹ The EPA distinguishes this proposed *de minimis* analysis here from the EPA's decision to reject a *de minimis* exemption for HCl for the Portland Cement Manufacturing source category, which the D.C. Circuit found to be reasonable in *Nat'l Lime Ass'n* 233 F.3d at 640. In that source category, HCl was emitted at amounts to qualify each kiln as a major source. See 64 FR 31898, 31907 (June 14, 1999). As clarified, that is not the case here for HCl or Cl₂ for the secondary lead source category.

⁶⁰ 60 FR 32587 (June 23, 1995).

⁶¹ EPA discussed environmental impacts of HCl in its proposed NESHAP for Lime Manufacturing Plants: 67 FR 78046 (December 20, 2002).

This document is a prepublication version, signed by EPA Administrator, Lee Zeldin on 09/29/2025. We have taken steps to ensure the accuracy of this version, but it is not the official version.

and the environment. Neither HCl⁶² nor Cl₂⁶³ are non-threshold carcinogens. These factors decrease the likelihood of adverse impacts from these pollutants, especially at low emission rates. Indeed, the health impacts of exposure to HCl and Cl₂ emissions here are exceedingly low. Noncancer hazard is expressed as a hazard quotient (HQ), the ratio of estimated exposure to the reference value. An HQ less than or equal to one indicates that adverse effects are not likely to occur. When the EPA last assessed the risk for this source category in 2012, the estimated maximum acute HQ for HCl was more than two orders of magnitude below one.⁶⁴ The chronic risk assessment yielded an even lower HQ. While Cl₂ is understood to be a more potent noncancer toxicant than HCl, the inappreciable emissions led to similarly low potential health impacts for Cl₂. Taken together, these results suggest there is no discernable risk of adverse health impacts from HCl and Cl₂ in this circumstance. This is particularly true given the conservative nature of the risk assessment, which used health-protective benchmarks and worst-case-scenario meteorological data for the acute scenario, and the fact that emission levels have continued to decrease over time.

Finally, the EPA distinguishes this proposed *de minimis* analysis from the EPA's prior decision to reject *de minimis* treatment for HCl for the cement kilns source

⁶² Information on the effects and environmental fate of HCl can be found at: U.S. Agency for Toxic Substances and Disease Registry (Last updated July 27, 2015). ToxFAQs for Hydrogen Chloride:

<https://wwwn.cdc.gov/TSP/ToxFAQs/ToxFAQsDetails.aspx?faqid=759&toxid=147>.

⁶³ Information on the effects and environmental fate of Cl₂ can be found at: U.S. Agency for Toxic Substances and Disease Registry (Last updated March 12, 2015). Toxicological Profile for Chlorine:

<https://wwwn.cdc.gov/TSP/ToxProfiles/ToxProfiles.aspx?id=1079&tid=36>.

⁶⁴ Docket ID No. EPA-HQ-OAR-2011-0344-0160.

This document is a prepublication version, signed by EPA Administrator, Lee Zeldin on 09/29/2025. We have taken steps to ensure the accuracy of this version, but it is not the official version.

category, which the D.C. Circuit previously found to be reasonable.⁶⁵ In that source category, HCl was emitted at amounts to qualify each kiln as a major source.⁶⁶ Here, as a factual matter, that is nowhere near the case for HCl or Cl₂ for the secondary lead source category as these 11 facilities emit only 1.5 tpy of HCl and 0.2 tpy of Cl₂. Further, even if this proposal arguably represents a change in the EPA's position on *de minimis* treatment for HCl, allowing for *de minimis* treatment of certain pollutants emitted in trivial amounts is the best reading of the statute when considering Congress's intent for promulgating standards as expressed in CAA section 112(e)(2).⁶⁷ The EPA seeks comment on whether the Agency's proposed *de minimis* treatment here for HCl and Cl₂ for the secondary lead smelting source category could be considered a change in Agency position (Question #8).

In light of these specific facts and circumstances, the EPA proposes to find that emissions of HCl and Cl₂ from secondary lead smelting facilities are *de minimis* and do not require emission limits. The continuing decline in these emissions due to the phaseout of PVC in batteries, and their lack of discernable risk of adverse health impacts all counsel against regulation. However, the EPA emphasizes the highly fact-specific nature of this proposed *de minimis* treatment. Other pollutants, even if emitted at low levels from other source categories, may not qualify for *de minimis* treatment where risks of adverse health impacts are significant. The EPA seeks comment on all aspects of the Agency's proposed determination, including the Agency's statutory interpretation and factual findings (Question #9).

⁶⁵ *National Lime Ass'n v. EPA*, 233 F.3d 625, 640 (D.C. Cir. 2000).

⁶⁶ 64 FR 31898, 31907 (June 14, 1999).

⁶⁷ *FCC v. Fox Television Stations, Inc.*, 556 U.S.502 (2009); *Loper Bright Enters v. Raimondo*, 603 U.S. 369 (2024).

This document is a prepublication version, signed by EPA Administrator, Lee Zeldin on 09/29/2025. We have taken steps to ensure the accuracy of this version, but it is not the official version.

In addition to proposing that HCl emissions are *de minimis*, we are also taking comment on whether to adopt a MACT HCl limit of 0.03 lb/hr in lieu of the *de minimis* determination (Question #10). This HCl limit was calculated using the standard MACT floor development procedures, which use the 99 percent UPL to incorporate variability demonstrated by the available test data obtained during the 2010 and 2023 CAA section 114 information requests. We did not identify any technically feasible, cost-effective control options to obtain any additional reductions for HCl. More information on the MACT floor and beyond-the-floor analysis is available in the memorandum titled: *Summary of MACT Floor and Beyond the Floor Analysis for the Secondary Lead Smelting Source Category* available in the docket of this rulemaking.⁶⁸ This HCl limit would serve as a surrogate for Cl₂. As affirmed by the D.C. Circuit, the EPA may use a surrogate to regulate emissions of HAP if there is a reasonable basis to do so.⁶⁹ For example, we have used PM controls as a surrogate for HAP metals “because no cement plant intentionally controls HAP metals; metal emissions are controlled only incidentally by controls placed upon PM.”⁷⁰ Thus, the court found that “EPA’s response is the correct one: ‘cement plants actually *are* controlling HAP metals[,] intentionally or not.’”⁷¹ Here, control technologies that reduce HCl also control Cl₂. Therefore, HCl is an appropriate

⁶⁸ Docket ID No. EPA-HQ-OAR-2025-0078.

⁶⁹ See *Dithiocarbamate Task Force v. EPA*, 98 F.3d 1394, 1399 (D.C. Cir. 1996) (EPA may attribute characteristics of a subclass of substances to an entire class of substances if doing so is scientifically reasonable.); See also *NRDC v. EPA*, 822 F.2d 104, 125 (D.C. Cir. 1987) (EPA may regulate a pollutant indirectly when its emissions are controllable by regulation of other pollutants.)

⁷⁰ *National Lime Ass’n*, 233 F.3d at 640.

⁷¹ *Id.*

surrogate for Cl₂. Additionally, in the 2011 RTR proposed rule testing indicated 98 percent of chlorine was emitted as HCl.

2. Differential pressure monitoring

As part of the amendments finalized in the 2012 RTR, the EPA required all secondary lead facilities to operate sources of fugitive lead emissions within total enclosures that are always maintained under negative pressure and vented to a control device.⁷² As previously explained, these sources of fugitive emissions include but are not limited to the following: smelting furnaces, smelting furnace charging areas, lead taps, slag taps, molds during tapping, battery breakers, refining kettles, casting areas, dryers, material handling areas, and areas where dust from fabric filters, sweepings or used fabric filters are processed. The facilities are also required to adopt a list of specified work practice standards to minimize fugitive emissions. To demonstrate compliance with the total enclosure requirement, facilities measure compliance using three differential pressure monitors placed on the leeward wall, windward wall, and an exterior wall that connects the leeward and windward wall. Monitors must maintain negative pressure values of at least 0.013 millimeters (mm) of mercury, which is equivalent to 0.007 inches of water.⁷³ The rule incorporated 40 CFR 63.10(b)(2)(vii), which requires records of 15-minute averages of data collected from continuous monitoring systems (CMS). The EPA subsequently issued a Secondary Lead Smelting NESHAP direct final rule clarifying that the data collected from the continuous pressure monitors must be used to calculate 15-

⁷² 40 CFR 63.554.

⁷³ 40 CFR 63.554 (C)(1).

minute averages that are used to demonstrate compliance, and the 15-minute averages must include at least one reading per minute.⁷⁴

Since implementing the negative pressure requirements, the EPA received requests from industry to allow for alternative monitoring procedures for demonstrating continuous negative pressure for total enclosures. ABR submitted comments⁷⁵ in response to Executive Order 13777, “Enforcing the Regulatory Reform Agenda,” available in the docket of this rulemaking. In the letter, ABR requested that the EPA revise the Secondary Lead Smelting NESHAP monitoring requirements and provide an option of demonstrating compliance through fan amperage monitors via EPA Method 204, sections 6.1 and 8.3, rather than mandating that smelters employ digital differential pressure devices. Industry states that at certain smelters, digital differential pressure devices do not provide robust and valid data for measuring compliance. The size and/or configurations of buildings, including the placement of inner walls and bulkheads, produce internally induced air currents at speeds and angles that create aspiration flows in the monitors, leading to errors in pressure measurements that do not reflect the actual pressure differential of the total enclosure. In addition to configuration issues, industry noted factors outside the control of smelters, including external temperature, sudden external barometric pressure changes, and other weather conditions, can disturb the validity of differential pressure readings and inward air flow at enclosure openings. Further, in response to the CAA section 114 information request, the EPA received several responses from facilities reporting issues with external factors such as sudden weather,

⁷⁴79 FR 367 (Jan. 3, 2014).

⁷⁵Baker Hostetler, Comments of the Association of Battery Recyclers on Evaluation of Existing Regulations, 82 FR 17793 (Apr. 13, 2017).

This document is a prepublication version, signed by EPA Administrator, Lee Zeldin on 09/29/2025. We have taken steps to ensure the accuracy of this version, but it is not the official version.

water intrusion, and blockages due to pest activity that affected the accuracy of the differential pressure monitoring readings.

Some EPA regional offices have approved alternative monitoring requests submitted by industry. For example, the East Penn secondary lead smelter in Lyons, Pennsylvania, and the Johnson Controls Battery Group secondary lead smelter in Florence, South Carolina, have been approved to use fan amperage as an alternative monitoring parameter to demonstrate continuous negative pressure.^{76, 77}

In addition to the alternative monitoring request, ABR requested that the EPA revise the monitoring requirement to include a data recovery requirement consistent with 40 CFR 60.7 for all continuous monitoring devices. This is addressed in the general provisions requirements of 40 CFR 63.10(e)(3)(vii), which is applicable to 40 CFR part 63, subpart X and is similar to 40 CFR 60.7, requiring only a summary report if the total duration of excess emissions or process or control system parameter exceedances for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period.

In response to the comments received regarding differential pressure monitoring, the EPA recognizes that, as the regulations are currently written, there may be difficulty demonstrating compliance using differential pressure monitors. The rule currently requires facilities to demonstrate compliance with the standard for differential pressure

⁷⁶U.S. Environmental Protection Agency. (August 13, 2014). East Penn Manufacturing Company, Alternate Monitoring Petition [Letter]

⁷⁷U.S. Environmental Protection Agency. (August 27, 2016). Johnson Controls Battery Group, Inc., Alternate Monitoring Petition [Letter]

This document is a prepublication version, signed by EPA Administrator, Lee Zeldin on 09/29/2025. We have taken steps to ensure the accuracy of this version, but it is not the official version.

by maintaining the pressure in total enclosures such that the average pressure in any 15-minute period does not fall below the level specified in 40 CFR 63.544(c)(1). To better align with the general provisions of 40 CFR part 63 and address the ongoing issues with the use of negative pressure monitors, we are proposing to increase the differential pressure averaging period from 15 minutes to 3 hours. The data from the CMS will be reduced according to 40 CFR 63.8(g)(2) to 1-hour averages, computed from four or more data points equally spaced over each 1-hour period, except during periods when calibration, quality assurance, or maintenance activities are being performed. During these periods, a valid hourly average will consist of at least two data points with each representing a 15-minute period. The increased averaging time will help differential pressure monitors overcome environmental issues such as wind and weather impacts while not disrupting the negative pressure requirements that are essential in controlling process fugitive emissions. We are also proposing to amend the rule requirements to clarify the averaging period applies to each individual monitor and not the average of the three monitors in 40 CFR 63.548(k)(4). The EPA is soliciting comment on increasing the differential pressure monitor averaging time (Question #11).

3. Total enclosure alternative monitoring using fan amperage

We are also proposing that affected sources of the Secondary Lead Smelting NESHAP may demonstrate compliance with the total enclosure monitoring requirements under 40 CFR 63.544(a) by using fan amperage as an alternative to differential pressure.⁷⁸ We are proposing procedures to use fan amperage that are based on EPA Method 204, sections 6.1 and 8.3 to demonstrate compliance with total enclosure

⁷⁸40 CFR part 63, subpart X.

This document is a prepublication version, signed by EPA Administrator, Lee Zeldin on 09/29/2025. We have taken steps to ensure the accuracy of this version, but it is not the official version.

monitoring. EPA Method 204 sets forth the criteria for a permanent total enclosure. Specifically, EPA Method 204 states that the pressure differential of 0.007 inches of water (or 0.013 mm of mercury) corresponds to 200 feet per minute (fpm) of inward face velocity at natural draft openings, per EPA Method 204, section 8.3. Inward face velocity (FV) can be calculated by dividing the difference between the sum of all exhaust air streams (Q_O) and the sum of all forced makeup air (Q_I) by the total area of all natural draft openings (A_N) using the following equation:⁷⁹

$$FV = \frac{Q_O - Q_I}{A_N}$$

Smelters must use the Manufacturers' Fan Performance Curves to determine the brake horsepower requirements necessary to achieve at least 3,600 m/hr (200 fpm) FV and calculate the minimum amperage necessary to achieve that corresponding horsepower. This minimum fan amperage will be the operating limit to ensure the negative pressure of the total enclosure is always maintained. The amperage at each exhaust and intake fan must then be monitored by a current transformer, recorded at least once per minute by a programmable logic controller or equivalent device, and averaged into a 3-hour period.

The EPA is proposing to add 40 CFR 63.548(n) which includes the procedures for using fan amperage to demonstrate compliance with total enclosure requirements and add associated records in 40 CFR 63.550(c) and the reporting requirements in 40 CFR 63.550(e). The EPA is soliciting comment on allowing monitoring of total enclosure at negative pressure through the use of fan amperage (Question #12).

⁷⁹ See EPA Method 204, section 8.3, Equation 204-3.

4. 24-month performance test extension

In their response to the CAA section 114 information request, industry requested the EPA remove the need to submit a written request to the Administrator when applying for an extension of up to 24 calendar months to conduct the next compliance test, if lead and THC testing results are 50 percent or less of the applicable emission limit. The Secondary Lead Smelting NESHAP requires sources to conduct annual compliance tests for total lead compounds and THC. The Secondary Lead Smelting NESHAP allows facilities to submit a written request to the Administrator for an extension of up to 24 calendar months from the previous compliance test to conduct the next compliance test if an annual compliance test is below a certain level. Industry notes that it has been difficult to obtain timely approval from the EPA for a performance test extension which, in practical effect, results in a denial of the extension request and smelters having to continue to conduct annual compliance testing. Therefore, industry requested that the EPA revise the Secondary Lead Smelting NESHAP to make performance test extensions of up to 24 calendar months automatic upon written notice of the request to the Administrator.

The EPA agrees that it is reasonable to expect to get a response within a reasonable timeframe before the next compliance test. Therefore, similar to the Standards of Performance for Secondary Lead Smelters for Which Construction, Reconstruction, or Modification Commenced After December 1, 2022,⁸⁰ the EPA is proposing a provision at 40 CFR 63.543(g)(3) and (h) that the extension request will be deemed approved under the following circumstances: (1) a facility completes a performance test that is measured

⁸⁰40 CFR part 60, subpart La.

This document is a prepublication version, signed by EPA Administrator, Lee Zeldin on 09/29/2025. We have taken steps to ensure the accuracy of this version, but it is not the official version.

as 50 percent or lower than the applicable emissions limit, (2) a facility submits a request for the extension within 4 months after the compliance test, and (3) the Administrator does not provide a response within 6 months of receipt of the request. The EPA is soliciting comment on the automatic approval of the 24-month testing extensions under certain circumstances (Question #13).

5. Issues raised by petitioners following the 2012 RTR

In January 2012, the EPA finalized the Secondary Lead Smelting RTR. In March 2012, the EPA received petitions for reconsideration from California Communities Against Toxics, Frisco Unleaded, Missouri Coalition for the Environment Foundation, NRDC, and Sierra Club (collectively); ABR; and Johnson Controls Battery Group Inc. (JCI). The EPA granted reconsideration to California Communities Against Toxics, Frisco Unleaded, Missouri Coalition for the Environment Foundation, NRDC, and Sierra Club (collectively) on the ample margin of safety analysis. The EPA also granted ABR and JCI's petitions for reconsideration.

The EPA addressed some industry issues in the subsequent Secondary Lead Smelting NESHAP direct final rule.⁸¹ The remaining industry issues were litigated and on May 28, 2013, the court rejected the industry petitioners' arguments and denied their petitions for review.⁸² Based on this court decision, we consider all the industry petitioners' reconsideration requests to be resolved, as those issues were addressed by the 2014 direct final rule or the court. The EPA will not respond to comments addressing any

⁸¹79 FR 367 (January 3, 2014).

⁸²*Ass'n of Battery Recyclers, Inc. v. EPA*, 716 F.3d 667 (D.C. Cir. 2013).

This document is a prepublication version, signed by EPA Administrator, Lee Zeldin on 09/29/2025. We have taken steps to ensure the accuracy of this version, but it is not the official version.

other issues or any other provisions of the 2012 rule not specifically addressed in this proposed rulemaking.

a. Ample margin of safety analysis

In their 2012 petition, Sierra Club, California Communities Against Toxics, Frisco Unleaded, Missouri Coalition for the Environment Foundation, and Natural Resources Defense Council⁸³ alleged that the EPA failed to adequately support its finding that the rule provided an ample margin of safety to protect public health. The ample margin of safety analysis included arsenic, cadmium, lead, dioxins and furans, organic HAP, and mercury. In 2012, the EPA granted reconsideration of the 2012 RTR on the following issue: petitioners' allegation that the EPA's ample margin analysis considered only cost, emission reductions, and cost effectiveness and did not include consideration of health and other metrics.

In evaluating and developing standards under section 112(f)(2), as discussed in Section I.A of the 2011 proposal preamble, we apply a two-step process to address residual risk. In the first step, the EPA determines whether risks are acceptable. This determination “considers all health information, including risk estimation uncertainty, and includes a presumptive limit on maximum individual lifetime [cancer] risk (MIR) of approximately 1 in 10 thousand [*i.e.*, 100-in-1 million]” (54 FR 38045). In the second step of the process, the EPA sets the standard at a level that provides an ample margin of safety “in consideration of all health information, including the number of persons at risk levels higher than approximately 1-in-1 million, as well as other relevant factors,

⁸³ Petition for Reconsideration of National Emissions Standards for Hazardous Air Pollutant Emissions from Secondary Lead Smelting, 77 FR. 556 (Jan. 5, 2012), Docket ID No. EPA-HQ-OAR-2011-0344-0173.

This document is a prepublication version, signed by EPA Administrator, Lee Zeldin on 09/29/2025. We have taken steps to ensure the accuracy of this version, but it is not the official version.

including costs and economic impacts, technological feasibility, and other factors relevant to each particular decision’’ (*Id.*)

In the 2012 RTR, we finalized the following requirements under CAA section 112(d)(6) and the acceptability determination under CAA section 112(f)(2):

- fugitive emission work practices,
- enclosure for fugitive emission sources, and
- a requirement limiting stack lead emissions to 0.2 mg/dscm as a facility-wide emissions average and limiting stack lead emissions from any single stack to 1.0 mg/dscm.

In the residual risk assessment for the 2012 RTR, we estimated that these requirements would reduce the cancer risk associated with arsenic and cadmium from 200-in-1 million to 10-in-1 million for MACT-allowable emissions and from 50-in-1 million to 10-in-1 million for actual emissions. In the 2012 rule, the maximum acute HQ value for arsenic was expected to be reduced from 20 to 5. We note that we changed our acute risk methodology in 2019 from using the worst-case air dispersion conditions (*i.e.*, the worst hour) to using the reasonable worst-case air dispersion conditions (*i.e.*, 99th percentile). If we were to estimate the acute risk using the updated acute risk approach, we anticipate it would be significantly less than estimated in the 2012 RTR. In the 2012 RTR, we estimated that the multipathway cancer risk from ingestion of dioxin was less than 1.

The risks described above were considered acceptable. As required, we performed an ample margin of safety analysis to determine whether risks could be further reduced.

In the Secondary Lead Smelting NESHAP proposal⁸⁴ and in the final rule,⁸⁵ the EPA presented the ample margin of safety analysis and the resulting decision. The ample margin of safety analysis did not focus only on costs as alleged by the petitioner. In addition to costs, we considered the human health impacts, availability of controls, and technical feasibility of applying available controls. We performed an ample margin of safety analysis for the source category that included consideration of multiple emissions sources, including sources that emit the following HAP: (1) arsenic and cadmium, (2) lead compounds, (3) dioxins and furans, (4) organic HAP, and (5) mercury compounds. The results of the ample margin of safety analysis are provided in the following paragraphs.

i. Arsenic and Cadmium: For fugitive emissions sources of arsenic and cadmium, we did not identify any additional feasible control options beyond what we required under acceptability. Therefore, we did not promulgate additional fugitive controls based on our ample margin of safety analysis. For stack emissions of arsenic and cadmium, we identified the addition of a WESP as a potential control. However, we found that stack emissions of arsenic and cadmium did not appreciably contribute to the 10-in-1 million cancer risks remaining after implementation of the controls under acceptability (cancer risks were largely driven by fugitive emissions of arsenic and cadmium). Moreover, we concluded that the likelihood of significant noncancer effects due to post-control arsenic emissions would be very low because the maximum acute noncancer HQ was estimated to be 5, and the assessment was based on a very conservative analysis using some worst-

⁸⁴ 76 FR 29057 (May 19, 2011).

⁸⁵ 77 FR 556 (January 5, 2012).

case assumptions (as indicated above, using the updated acute methodology, the HQ would likely be significantly lower). Furthermore, the costs for these additional controls were high: total capital costs were \$400 million, and the total annualized costs were \$55 million (\$4 million/ton of metal HAP emissions reduced). Therefore, we did not promulgate standards based on the installation of a WESP under the ample margin of safety analysis.

ii. Lead: In the 2012 RTR, we finalized requirements under CAA sections 112(d)(6) and (f)(2) lowering the facility-wide emissions limit to a flow-weighted average of 0.20 mg/dscm, limiting the emissions from any one stack to no more than 1.0 mg/dscm, and requiring facilities to fully enclose process fugitive emissions sources and fugitive dust sources. These actions reduced the actual and MACT-allowable lead emissions from this source category to a level that would not result in off-site concentrations above the NAAQS. Moreover, we did not identify any further feasible and cost-effective controls. Thus, we determined that additional lead controls beyond those required under CAA sections 112(d)(6) and (f)(2) were not needed to provide an ample margin of safety to protect public health.

iii. Dioxins and Furans: We promulgated various emissions limits for D/F emissions in the final rule,⁸⁶ under CAA section 112(d)(2) and (3). At proposal, results of the multipathway risk assessment indicated that the ingestion cancer risk associated with dioxin and furan emissions was 30-in-1 million. Following proposal, new dioxins and furans emissions data were obtained for the industry. We revised the multipathway risk assessment based on these new data and found that the ingestion cancer risk associated

⁸⁶ 77 FR 556 (January 5, 2012).

This document is a prepublication version, signed by EPA Administrator, Lee Zeldin on 09/29/2025. We have taken steps to ensure the accuracy of this version, but it is not the official version.

with dioxin and furan emissions was less than 1-in-1 million. Because the maximum individual risk is less than 1-in-1 million, we determined that reductions in emissions of dioxins and furans beyond those achieved by the MACT standards were not needed to provide an ample margin of safety to the public.

iv. Organic HAP: For organic HAP (other than dioxins and furans), we estimated that actual emissions did not result in a cancer risk above 1-in-1 million at any facility in this source category. Given that actual emissions from blast furnaces did not result in a cancer risk above 1-in-1 million and the actual THC emissions modeled from blast furnaces were at levels close to the allowable emissions, we concluded that the cancer risk associated with actual and allowable emissions of organic HAP from all other furnace types are not likely to be greater than 1-in-1 million since the THC limit for blast furnaces is considerably higher than for other furnace types. Additionally, emissions of organic HAP from this source category do not appreciably contribute to any chronic noncancer risk. For these reasons, we determined that additional organic HAP reductions were not needed to provide an ample margin of safety.

v. Mercury: With regard to mercury emissions from this source category, our risk assessment indicated that, even based on our highly conservative estimates of mercury emissions, emissions of mercury did not appreciably contribute to risk based on both the inhalation and multipathway risk analyses. Given that the work practice standard for mercury is based on actual performance of the industry, we determined that more stringent mercury standards were not required to provide an ample margin of safety to protect public health.

Therefore, in conclusion, we have illustrated above that in the 2011 RTR proposal and 2012 RTR final rule, the EPA presented the ample margin of safety analysis and the resulting decision. The ample margin of safety analysis did not focus only on costs as alleged by the petitioner. In addition to costs, we considered the human health impacts, availability of controls, and technical feasibility of applying available controls. The EPA is soliciting comment on the determination the Secondary Lead Smelting NESHAP provides an ample margin of safety (Question #14).

b. Other petition for reconsideration items

Petitioners maintain that it was not feasible to comment on the accidental release threshold and the paved road exemption for limited use roads which were promulgated as part of work practice standards in the 2012 RTR. We are not making any changes to the work practice standards in the 2012 RTR. However, we are requesting public comment on the accidental release threshold (Question #15) and the paved road exemption for limited use roads (Question #16). The EPA will not respond to comments addressing any other issues or any other provisions of the 2012 rule not specifically addressed in this proposed rulemaking.

6. Other items

In addition to the proposed actions described above, we are proposing additional revisions to the NESHAP. We are proposing revisions to the SSM provisions of the NESHAP in order to ensure that they are consistent with the decision in *Sierra Club v. EPA*, 551 F.3d 1019 (D.C. Cir. 2008), in which the court vacated two provisions that exempted sources from the requirement to comply with otherwise applicable CAA section 112(d) emission standards during periods of SSM. We also are proposing other

revisions to the General Provisions table (Table 1), electronic reporting, and affirmative defense provisions. Our analyses and proposed changes related to these issues are discussed below.

a. SSM

Consistent with *Sierra Club v. EPA*, 551 F.3d 1019 (D.C. Cir. 2008), which held that under CAA section 302(k), emissions standards or limitations must be continuous in nature and that the SSM exemption violates the CAA's requirement that some section 112 standards apply continuously, the EPA established standards in the Secondary Lead Smelting NESHAP for all periods of operation and removed references to SSM provisions.⁸⁷ As part of this proposal, we are addressing outstanding SSM provisions by proposing to revise the General Provisions Applicability Table (table 1) entries (Question #17) as follows:

- 40 CFR 63.8(d)(3): change the “Yes, except for last sentence.” in column “Applies to Subpart X” to “No” and add a comment “See § 63.550(c)(15)” which includes written CMS procedures.
- 40 CFR 63.10(b)(2)(i): add a comment “See § 63.550(e)(13) for recordkeeping for startup and shutdown.”
- 40 CFR 63.10(b)(2)(ii): revise the comment to include references to 40 CFR 63.550(c)(11) and (12) for recordkeeping related to malfunctions.
- 40 CFR 63.10(b)(2)(iv)-(b)(2)(v): add a comment “See § 63.550(c)(13)” for identifying excess emissions.

⁸⁷ 77 FR 556 (January 5, 2012).

This document is a prepublication version, signed by EPA Administrator, Lee Zeldin on 09/29/2025. We have taken steps to ensure the accuracy of this version, but it is not the official version.

- 40 CFR 63.10(c)(10)-(11): revise the comment to include references to 40 CFR 63.550(c)(11) and (12) for recordkeeping related to malfunctions.
- 40 CFR 63.10(d)(5): revise the comment to include a reference to 40 CFR 63.550(e)(13).

Additionally, we are proposing to revise the references to no standards for D/F for periods of startup and shutdown from 40 CFR 63.543(c) and from Table 2. The EPA recognizes dioxins and furans will not be emitted during those periods. We are proposing work practices standards during startup and shutdown where facilities ensure scrap feed materials (including chlorinated plastics and flame retardants) that contain the precursors needed for dioxin formation are not introduced into the smelter so there are no conditions that could give rise to D/F emissions. The EPA is soliciting comment on the proposed work practice standards for D/F during startup and shutdown (Question #18).

b. Other General Provisions Applicability revisions to Table 1

We are also proposing to amend the General Provisions Applicability Table entries (Question #19) as listed below to address changes in the general provisions since the last rulemaking:

- 40 CFR 63.6(c)(1), (2): change the “Yes” in column “Applies to Subpart X” to a “No” and add the comment, “see § 63.546.”
- 40 CFR 63.6(c)(3), (4): change the “Yes” in column “Applies to Subpart X” to a “No” and add the comment, “Section Reserved.”
- 40 CFR 63.6(f)(2)-(3): add “Yes” in the column “Applies to Subpart X.”
- 40 CFR 63.9(k): Removing the comment “Only as specified in 63.9(j).”

- 40 CFR 63.10(d)(1)-(4): add 40 CFR 63.10(d)(1), 63.10(d)(2), 63.10(d)(3), and 63.10(d)(4), add “No” to column “Applies to Subpart X” and comment, “see § 63.9(k)” for 40 CFR 63.10(d)(2), add “No” to column “Applies to Subpart X” for 40 CFR 63.10(d)(3), add “Yes” to column “Applies to Subpart X” for 40 CFR 63.10(d)(4).
- 40 CFR 63.12 to 63.15: Change to 40 CFR 63.12 to 63.16.

c. Electronic reporting

The EPA is proposing to update and expand the electronic reporting requirements to which owners and operators of secondary lead smelting facilities are subject. The following report types (initial notification of compliance, performance test reports, results of CEM performance evaluations, Notification of Compliance Status (NOCS), and semiannual excess emissions and CMS performance reports and summary reports) will be submitted through the EPA’s Central Data Exchange (CDX) using the Compliance and Emissions Data Reporting Interface (CEDRI). A description of the electronic data submission process is provided in the memorandum *Electronic Reporting Requirements for New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Rules*, available in the docket for this action. Performance test results and performance evaluation results of continuous emissions monitoring systems (CEMS) relative accuracy test audits (RATAs) have been required to be submitted electronically since January 1, 2012. We are proposing to revise the regulatory text to reference the general provisions and that the initial notification of compliance and the NOCS reports be submitted as a PDF upload in CEDRI (Question #20).

For the semiannual excess emissions and CMS performance reports and summary reports, we are proposing at 40 CFR 63.550(e)(15)(iii) that owners and operators use the appropriate spreadsheet template to submit information to CEDRI. The EPA is proposing to revise the recordkeeping and reporting requirements at 40 CFR 63.550(c) and (e) which is reflected in the template. A draft version of the proposed template for these reports is included in the docket for this action.⁸⁸ The EPA specifically requests comment on the content, layout, and overall design of the template (Question #21).

The electronic submittal of the reports addressed in this proposed rulemaking will increase the usefulness of the data contained in those reports, is in keeping with current trends in data availability and transparency, will further assist in the protection of public health and the environment, will improve compliance by facilitating the ability of regulated facilities to demonstrate compliance with requirements and by facilitating the ability of delegated state, local, tribal, and territorial air agencies and the EPA to assess and determine compliance, and will ultimately reduce burden on regulated facilities, delegated air agencies, and the EPA. Electronic reporting also eliminates paper-based, manual processes, thereby saving time and resources, simplifying data entry, eliminating redundancies, minimizing data reporting errors, and providing data quickly and accurately to the affected facilities, air agencies, the EPA, and the public.

d. Affirmative defense

88

Secondary_Lead_Smelters_Semiannual_Excess_Emission_SMS_Performance_Report_Template, available at Docket ID. No. EPA-OAR-2025-0078.

This document is a prepublication version, signed by EPA Administrator, Lee Zeldin on 09/29/2025. We have taken steps to ensure the accuracy of this version, but it is not the official version.

As part of the 2012 RTR⁸⁹ the EPA included the ability to assert an affirmative defense to civil penalties for violations caused by malfunctions.⁹⁰ Although the EPA recognized that its case-by-case enforcement discretion provided sufficient flexibility under such circumstances, we included the affirmative defense provision to provide a more formalized approach and greater regulatory clarity. Under the EPA's regulatory affirmative defense provisions, if a source could demonstrate in a judicial or administrative proceeding that it had met the requirements of the affirmative defense in the regulation, civil penalties would not be assessed. However, in *NRDC*, the D.C. Circuit vacated an affirmative defense provision in another CAA section 112 regulation, finding that the EPA lacked authority to establish such an affirmative defense because the authority to determine civil penalty amounts in such cases lies exclusively with the courts, not the EPA.⁹¹ In response to this decision, the EPA is proposing to remove the affirmative defense provisions previously established in the Secondary Lead Smelting NESHAP at 40 CFR 63.552 in their entirety and the definition of “affirmative defense” at 40 CFR 63.542. The EPA initially added the affirmative defense provisions in the Secondary Lead Smelting NESHAP in 2012, specifically describing the affirmative defense in the preamble as an “affirmative defense to civil penalties for exceedances of emission limits that are caused by malfunctions.”⁹² The regulatory language narrowly defines this affirmative defense as an “affirmative defense to civil penalties for

⁸⁹ 77 FR 556 (January 1, 2012).

⁹⁰ 40 CFR 63.542

⁹¹ *NRDC v. EPA*, 749 F.3d 1055 (D.C. Cir. 2014) (vacating affirmative defense provisions in the CAA section 112 rule establishing emission standards for Portland cement kilns).

⁹² 77 FR 556 (January 5, 2012).

exceedances of emissions limit during malfunction.”⁹³ As explained above, if a source is unable to comply with emissions standards as a result of a malfunction, the EPA may use its case-by-case enforcement discretion to provide flexibility, as appropriate. Further, as the court recognized in the *NRDC* decision, in an EPA or citizen enforcement action, the court has the discretion to consider any defense raised and determine whether penalties are appropriate.⁹⁴ The same is true for the presiding officer in EPA administrative enforcement actions.

The EPA previously proposed to remove the affirmative defense provisions from the Secondary Lead Smelting NESHAP as part of a proposed rule entitled Removal of Affirmative Defense Provisions from Specified New Source Performance Standards and National Emissions Standards for Hazardous Air Pollutants.⁹⁵ We now propose the removal of these provisions as part of this action. We are soliciting comment on our proposal to remove the affirmative defense provisions from the Secondary Lead Smelting NESHAP as part of this rulemaking (Question #22). Comments previously submitted on the prior proposed rule will not be considered as part of this action and must be submitted to the docket for this action in order to be considered.⁹⁶

Additionally, on September 5, 2025, the D.C. Circuit held in *SSM Litigation Group v. EPA*, Case No. 23-1267, that although EPA has no authority under the CAA to “create a regulatory ‘defense’ that limits the remedial authority granted by Congress to

⁹³ 40 CFR 63.552.

⁹⁴ Cf. *NRDC*, 749 F.3d at 1063 (arguments that violation was caused by unavoidable technology failure can be made to the courts in future civil cases when the issue arises).

⁹⁵ 89 FR 52425 (June 24, 2024).

⁹⁶ Docket ID No. EPA-HQ-OAR-2025-0078. The EPA intends to take appropriate final action on the remainder of that proposed rule in a separate action at the appropriate time. This document is a prepublication version, signed by EPA Administrator, Lee Zeldin on 09/29/2025. We have taken steps to ensure the accuracy of this version, but it is not the official version.

the federal courts,” a “complete affirmative defense, like the one at issue [in that case], is permissible because it relates to the antecedent question of liability and therefore does not impinge on the judiciary’s authority to award ‘appropriate civil penalties.’”⁹⁷ As previously noted, this affirmative defense provision for which EPA is now proposing removal is only for civil penalties and is not a complete affirmative defense as contemplated by the D.C. Circuit in the *SSM Litigation Group* decision. Due to the timing of the D.C. Circuit’s decision in *SSM Litigation Group* and the Agency’s consent decree deadline to issue this proposed action, the Agency is proposing to remove the existing affirmative defense in response to the *NRDC* decision while reserving the issue of affirmative defenses more generally for the future.

The EPA therefore requests comment on whether and how we should establish regulations within this and other New Source Performance Standards or NESHAPs in response to the D.C. Circuit’s *SSM Litigation Group* decision. Due to the timing of the D.C. Circuit decision and the Agency’s consent decree deadline, the EPA will address the impacts of the *SSM Litigation Group* decision in an appropriate future action. The EPA is soliciting comment on the proposed removal of this affirmative defense provision for civil penalties (Question #23).

e. Hydrometallurgical and electrometallurgical lead processing

On February 5, 2016, the EPA received a petition for a new rulemaking from Sierra Club and California Communities Against Toxics.⁹⁸ The petition requested that the

⁹⁷ Slip Op. at 10-11 (quoting CAA 304(a), 42 U.S.C. 7604(a)).

⁹⁸ U.S. Environmental Protection Agency. (Last updated Feb. 5, 2016). Petition for Rulemaking on NESHAP from Secondary Lead Smelting: <https://www.epa.gov/sites/default/files/2016-10/documents/secleadpetfornewrulemakingearthjustice5feb16.pdf>. This document is a prepublication version, signed by EPA Administrator, Lee Zeldin on 09/29/2025. We have taken steps to ensure the accuracy of this version, but it is not the official version.

EPA revise the provisions on applicability and definitions in the Secondary Lead Smelting NESHAP. The petition was submitted in response to a published notice of proposed action on an application for an operating permit submitted by Aqua Metals, Inc. to the Nevada Department of Environmental Protection. The permit concerned plans to construct and operate a used lead acid battery recycler, also known as a secondary lead processing facility. The proposed facility intended to recycle lead acid car batteries using hydrometallurgical and electrometallurgical lead processing techniques rather than using typical pyrometallurgic lead technology. The permit application did not include terms or conditions to comply with the Secondary Lead Smelting NESHAP, as the facility did not believe the NESHAP was applicable due to the applicability requirements and current definitions of affected sources. This facility later shut down, and hence the EPA did not act on the petition. The EPA has recently been notified of a new facility intending to operate a secondary lead recycling facility that will operate non-pyrometallurgic lead recycling processes. The EPA is requesting information about these non-pyrometallurgic processes to aid in determining the most appropriate way to address this type of secondary lead recycling (Question #24).

C. What compliance dates are we proposing, and what is the rationale for the proposed compliance dates?

The proposed amendments to the Secondary Lead Smelting NESHAP in this action are subject to the compliance timeframes in CAA section 112(i).⁹⁹ We expect most existing sources can comply with the amendments without modification.

⁹⁹ 42 U.S.C. 7412(i).

We are proposing the following amendment to be effective upon publication of the final rule: the provision that a performance test extension request will be deemed approved under certain circumstances; and the use of fan amperage to demonstrate compliance with the total enclosure requirement as an alternative to differential pressure monitoring.

We are proposing to allow six months to comply with the amendments to recordkeeping and reporting of malfunctions and deviations and the D/F work practice standards during startup and shutdown and the increased averaging period for differential pressure monitoring. This additional compliance time allows facilities to read and the requirements and modify their procedures accordingly.

We are proposing to allow one year for the use of the CEDRI reporting template and compliance with the D/F and THC limits for collocated rotary and reverberatory furnaces. For the CEDRI reporting template we are proposing, facilities submit semiannual excess emissions and CMS performance reports to the Administrator using the template beginning 1 year after publication of the final rule in the *Federal Register* or once the report template for 40 CFR part 63, subpart X has been available on the CEDRI website for one year, whichever date is later.

The EPA estimates that only one existing source would need time to comply with the proposed collocated rotary and reverberatory furnace limits. This facility needs time to establish contracts with testing companies and arrange for and conduct the performance testing. Therefore, we are proposing to allow one year for existing sources to comply with the collocated rotary and reverberatory furnace THC and D/F emission limits.

As provided in CAA section 112(i), for all affected sources that commenced construction or reconstruction after **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, we are proposing that owners and operators comply with the provisions by the effective date of the final rule (or upon startup, whichever is later). The effective date is the date of publication of the final amendments in the *Federal Register*.

We solicit comment on these proposed compliance periods, and we specifically request submission of information from sources in this source category regarding specific actions that would need to be undertaken to comply with the proposed amended provisions and the time needed to make the adjustments for compliance with any of the revised provisions (Question #25).

IV. Summary of Cost, Environmental, and Economic Impacts

A. What are the affected sources?

There are currently 11 secondary lead smelting facilities in the United States. The list of facilities is available in the document titled *List of Facilities Subject to the Secondary Lead Smelting NESHAP*, which is available in the docket for this rulemaking.¹⁰⁰ We anticipate that no new secondary lead smelting facilities, as currently defined, will become subject to the NESHAP in the next eight years.

B. What are the air quality impacts?

We do not anticipate any air quality impacts due to this rulemaking. We are setting a MACT Floor for THC and D/F rotary furnaces but do not anticipate any reductions of THC and D/F. There is only one collocated rotary and reverberatory furnace in the source category and the limit reflects current controls on this furnace.

¹⁰⁰ Docket ID No. EPA-HQ-OAR-2025-0078.

This document is a prepublication version, signed by EPA Administrator, Lee Zeldin on 09/29/2025. We have taken steps to ensure the accuracy of this version, but it is not the official version.

C. What are the cost impacts?

We anticipate limited costs associated with this rulemaking. The THC and D/F testing requirement for collocated rotary and reverberatory furnaces only applies to one facility. We anticipate the costs of testing and recordkeeping and reporting to be approximately \$70,700 for the first year of testing. The estimated D/F testing costs every 6 years are \$30,000 per test and the estimated annual THC testing costs are \$10,000 per test. The estimated recordkeeping and reporting costs are \$30,700 for the first year.

D. What are the economic impacts?

As described above, costs were estimated for the first 8 years (2027 - 2034) following this action. This allows for a reasonable and consistent timeframe over which to examine impacts of this action from a present value (PV) perspective. The PV in 2023 dollars is a cost of approximately \$180,000 using a 3 percent discount rate and \$160,000 using a 7 percent discount rate. The equivalent annualized value in 2023 dollars is a cost of approximately \$26,000 using a discount rate of 3 percent and \$26,000 using a discount rate of 7 percent. Given the results of the analysis, these economic impacts are relatively low for affected industries and entities impacted by this proposed rule, and there will not be substantial impacts on the markets for affected products. The costs of the proposed rule are not expected to result in a significant market impact, regardless of whether they are passed on to the purchaser or absorbed by the companies.

The EPA performed a screening analysis to assess potential impacts of this action on small entities. Based on the small entity size standards defined by the U.S. Small Business Administration (SBA), the EPA determined that 4 of the 11 facilities affected by this action are ultimately owned by parent companies that are small entities. None of

these small entities are expected to incur significant impacts. The only entity that is expected to be impacted by the additional testing costs from this rule is not considered a small business. Therefore, the EPA has determined that this rule will not have a significant impact on a substantial number of small entities (*i.e.*, no SISNOSE).

E. What are the benefits?

We do not anticipate emissions reductions from the proposed THC and D/F standards for collocated rotary and reverberatory furnaces. Some benefits may result from the revised provision allowing a 24-month extension for compliance testing, if finalized as proposed, as the requirements to receive the extension will encourage facilities to operate below 50 percent of the lead and THC limits, encouraging individual facilities to be top performers for emissions reductions. We are unsure of the number of facilities that may meet the requirements. Therefore, we cannot estimate potential benefits of this proposed provision.

V. Request for Comments

We solicit comments on this proposed action. In addition to general comments on this proposed action, we are also interested in additional data that may improve the analyses. We are specifically interested in receiving any information regarding developments in practices, processes, and control technologies that reduce HAP emissions.

The EPA is soliciting comment on the following:

- Question #1: Whether we should consider any additional developments not addressed here or in the technical memorandum.

- Question #2: On the determination that a baghouse routed to a WESP is not cost-effective.
- Question #3: Our determination not to propose fence-line monitoring for the secondary lead smelting source category.
- Question #4: The proposed THC and D/F limits and beyond-the-floor rationale.
- Question #5: The proposed collocated rotary and reverberatory furnace definition.
- Question #6: On setting the THC and D/F standards pursuant to CAA section 112(d)(6) rather than setting the THC and D/F standards exclusively pursuant to CAA section 112(d)(2) and (3).
- Question #7: On proposing THC as a surrogate for COS.
- Question #8: On whether the Agency's proposed *de minimis* treatment here for HCl and Cl₂ for the secondary lead smelting source category could be considered a change in Agency position.
- Question #9: On all aspects of the Agency's proposed determination, including the Agency's statutory interpretation and factual findings.
- Question #10: On whether to adopt a MACT HCl limit of 0.03 lb/hr in lieu of the *de minimis* determination.
- Question #11: On increasing the differential pressure monitor averaging time.
- Question #12: On allowing monitoring of total enclosure at negative pressure through the use of fan amperage.
- Question # 13: On the approval of the 24-month testing extensions under certain circumstances.

- Question #14: On the determination the Secondary Lead Smelting NESHAP provides an ample margin of safety.
- Question #15: On the accidental release threshold.
- Question #16: On the paved road exemption for limited use roads.
- Question #17: On changes removing the General Provisions Applicability Table (Table 1) entries to address SSM.
- Question #18: On the proposed work practice standards for D/F during startup and shutdown.
- Question #19: On the proposed changes to the General Provisions Applicability Table entries.
- Question #20: On the proposed changes regulatory text to reference the general provisions and that the initial notification of compliance and the NOCS reports be submitted as a PDF upload in CEDRI.
- Question #21: On the content, layout, and overall design of the template.
- Question #22: On our proposal to remove the affirmative defense provisions from the Secondary Lead Smelting NESHAP as part of this rulemaking.
- Question #23: On the proposed removal of the affirmative defense provision for civil penalties.
- Question #24: On the non-pyrometallurgic processes to aid in determining the most appropriate way to address non-pyrometallurgic secondary lead recycling.
- Question #25: On the proposed compliance periods, and we specifically request submission of information from sources in this source category regarding specific actions that would need to be undertaken to comply with the proposed amended

provisions and the time needed to make the adjustments for compliance with any of the revised provisions.

- Question #26: On the EPA's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden to the EPA using the docket identified at the beginning of this rule.
- Question #27: Any potentially applicable VCS and to explain why such standards should be used in this regulation.

VI. Statutory and Executive Order Reviews

Additional information about these statutes and Executive Orders can be found at <https://www.epa.gov/laws-regulations/laws-and-executive-orders>.

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is not a significant regulatory action and was therefore not submitted to the OMB for review.

B. Executive Order 14192: Unleashing Prosperity Through Deregulation

This action is not expected to be an Executive Order 14192 regulatory action because this action is not significant under Executive Order 12866.

C. Paperwork Reduction Act (PRA)

The information collection activities in this proposed rule have been submitted for approval to the OMB under the PRA. The ICR document that the EPA prepared has been assigned EPA ICR number 2060-0296. You can find a copy of the ICR in the docket for this rule, and it is briefly summarized here.

This document is a prepublication version, signed by EPA Administrator, Lee Zeldin on 09/29/2025. We have taken steps to ensure the accuracy of this version, but it is not the official version.

Respondents/affected entities: Owners or operators of secondary lead smelting facilities.

Respondent's obligation to respond: Mandatory (40 CFR part 63, subpart X).

Estimated number of respondents: 11.

Frequency of response: Initially, semiannually, and annually.

Total estimated burden: 100 hours (per year). Burden is defined at 5 CFR 1320.3(b).

Total estimated cost: Average annual cost is \$34,000 (per year) which includes \$0 annualized capital or operation and maintenance costs.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for the EPA's regulations in 40 CFR are listed in 40 CFR part 9.

Submit your comments on the EPA's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden to the EPA using the docket identified at the beginning of this rule (Question #26). You may also send your ICR-related comments to OMB's Office of Information and Regulatory Affairs via email to OIRA_submission@omb.eop.gov, Attention: Desk Officer for the EPA. Since OMB is required to make a decision concerning the ICR between 30 and 60 days after receipt, OMB must receive comments no later than

[INSERT DATE 30 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER]. The EPA will respond to any ICR-related comments in the final rule.

D. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. In making this determination, the EPA concludes that the impact of concern for this rule is any significant adverse economic impact on small entities and that the EPA is certifying that this rule will not have a significant economic impact on a substantial number of small entities because the rule has no net burden on the small entities subject to the rule. We identified that four of the 11 facilities in the secondary lead smelting source category affected by this proposed action are small businesses. The EIA conducted for this proposal (see *Economic Impact Analysis*, which is available in the docket for this action) showed that the small businesses will not incur total annualized costs greater than 1 percent of their revenue. We have therefore concluded that this action will have no net regulatory burden for all directly regulated small entities.

E. Unfunded Mandates Reform Act (UMRA)

This action does not contain an unfunded mandate of \$100 million (adjusted annually for inflation) or more (in 1995 dollars) as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. The costs involved in this action are estimated not to exceed \$187 million in 2024\$ (\$100 million in 1995\$ adjusted for inflation using the gross domestic product implicit price deflator) or more in any 1 year.

F. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the

states, or on the distribution of power and responsibilities among the various levels of government.

G. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments

This action does not have tribal implications as specified in Executive Order 13175. None of the facilities that have been identified as being affected by this action are owned or operated by tribal governments or are located within tribal lands. Thus, Executive Order 13175 does not apply to this action.

H. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks

Executive Order 13045 directs Federal agencies to include an evaluation of the health and safety effects of the planned regulation on children in Federal health and safety standards and explain why the regulation is preferable to potentially effective and reasonably feasible alternatives. This action is not subject to Executive Order 13045 because the EPA does not believe the environmental health risks or safety risks addressed by this action present a disproportionate risk to children. Emissions from this source category include HAP like lead and arsenic which are known developmental toxicants. However, the controls required in 2012 already reduced the modeled exposure to HAP from these facilities to below levels of public health concern (77 FR 556; January 5, 2012). Therefore, this action does not present or address disproportionate risk to children. However, the EPA's *Policy on Children's Health* applies to this action.

The EPA does not believe there are disproportionate risks to children because the Secondary Lead Smelting NESHAP currently has lead emissions limits for process vents

and process fugitives. In 2012, we estimated the required controls would result in modeled lead concentrations such that there would be no one living at a census block centroid exposed to ambient concentrations above the NAAQS, thereby mitigating the risk of future adverse health effects to children. The modeled concentration data are supported by fence-line monitoring conducted during the CAA section 114 information request which showed ambient lead levels well below the lead NAAQS limit of 0.15 micrograms per cubic meter 3-month rolling average limit at the fence-line for all but one facility (this one facility is currently subject to a state consent agreement). The fence-line monitoring conducted also included testing for arsenic which we found to be below levels of concern. Additionally, we are updating monitoring, recordkeeping, and reporting requirements to help improve compliance reporting, which also benefits children's health.

I. Executive Order 13211: Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use

This action is not subject to Executive Order 13211, because it is not a significant regulatory action under Executive Order 12866.

J. National Technology Transfer and Advancement Act (NTTAA)

This action involves technical standards. The EPA proposes to use the voluntary consensus standard (VCS) discussed below. The EPA searched the Enhanced National Standards Service Network (NSSN) database maintained by the American National Standards Institute (ANSI) for VCS that could be used in the Secondary Lead Smelting NESHAP. While we have made a reasonable effort to identify and evaluate potentially practical VCS, our findings do not necessarily represent all potential alternative standards which may exist.

Searches were conducted for EPA Methods 1, 2, 3A, 3B, 4, 5D, 12, 23, 25A, and 29 of 40 CFR part 60, appendix A. We found no VCS are acceptable alternatives for EPA Methods 1, 2, 3A, 4, 5D, 12, 23, 25A and 29.

One VCS is an acceptable alternative to EPA Method 3B for this rule. The manual methods in ANSI/ASME PTC 19-10-1981 Part 10, “Flue and Exhaust Gas Analyses” (2010 version) are acceptable alternatives to EPA Method 3B to analyze O₂ and carbon dioxide (CO₂) concentrations in the stack gas. The instrumental methods in the VCS ANSI/ASME PTC 19-10-1981 Part 10, “Flue and Exhaust Gas Analyses” (2010 version) are not acceptable alternatives to EPA Method 3B. The manual methods are available at the ANSI, 1899 L Street NW, 11th Floor, Washington, DC 20036 and the American Society of Mechanical Engineers (ASME), Three Park Avenue, New York, NY 10016-5990; telephone number: 1-800-843-5990; and email address: customercare@asme.org. See www.ansi.org and www.asme.org. The standard is available to everyone at a cost determined by ANSI/ASME (\$88). ANSI/ASME also offer memberships or subscriptions for reduced costs. The cost of obtaining these methods is not a significant financial burden, making the methods reasonably available.

Under 40 CFR 63.7(f) and 40 CFR 63.8(f), subpart A—General Provisions, a source may apply to the EPA for permission to use alternative test methods or alternative monitoring requirements in place of any required testing methods, performance specifications, or procedures in the final rule or any amendments.

The EPA welcomes comments on this aspect of the proposed rulemaking and, specifically, invites the public to identify potentially applicable VCS and to explain why such standards should be used in this regulation (Question #27).

This document is a prepublication version, signed by EPA Administrator, Lee Zeldin on 09/29/2025. We have taken steps to ensure the accuracy of this version, but it is not the official version.

The EPA proposes to amend 40 CFR 63.14 to incorporate by reference for one VCS: ANSI/ASME PTC 19.10-1981, Flue and Exhaust Gas Analysis [Part 10, Instruments and Apparatus], issued August 31, 1981, IBR requested for 40 CFR 63.1450(a)(iii), (b)(iii), (d)(iii), and (e)(iii). This method is an approved alternative to EPA Method 3B manual portion only, not the instrumental portion. The applicable portion of this Performance Test Code is the wet chemical manual procedures, apparatus and calculations for quantitatively determining O₂, CO₂, carbon monoxide and nitrogen from stationary combustion sources.

List of Subjects in 40 CFR Part 63

Environmental protection, Air pollution control, Hazardous substances, Incorporation by reference, Reporting and record keeping requirements.

Lee Zeldin,

Administrator.