Regulatory Impact Analysis for the Proposed Revisions to the Air Emissions Reporting Requirements

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Regulatory Impact Analysis of the Proposed Revisions to the Air Emissions Reporting Requirements

U.S. Environmental Protection Agency
Office of Air Quality Planning and Standards
Health and Environmental Impacts Division
Research Triangle Park, NC

CONTACT INFORMATION

This document has been prepared by staff from the Office of Air and Radiation, U.S. Environmental Protection Agency. Questions related to this document should be addressed to the Air Economics Group in the Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Office of Air and Radiation, Research Triangle Park, North Carolina 27711 (email: OAQPSeconomics@epa.gov).

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1 INTRODUCTION

This report is the regulatory impact analysis (RIA) for the proposed revisions to the Air Emissions Reporting Rule (AERR). The U.S. Environmental Protection Agency (EPA) is proposing changes to the current EPA emission inventory reporting requirements in 40 CFR Part 51, Subpart A, also called the Air Emissions Reporting Requirements (AERR).

The proposed amendments may require changes to current regulations of air pollution control agencies, meaning state, local, and certain tribal air agencies. The proposed amendments would require these agencies to report emissions data to the EPA using different approaches from current requirements and would require owners/operators of some facilities to report additional emissions data. More specifically, the EPA is proposing to require certain sources report information regarding emissions of hazardous air pollutants. The proposed revisions would also define a new approach for optional collection by air agencies of such information on hazardous air pollutants by which state, local and certain tribal air agencies may implement requirements and report emissions on behalf of owners/operators. The proposed revisions would also make the requirements for point sources consistent for every year; phase in earlier deadlines for point source reporting; add requirements for reporting fuel use data for certain sources of electrical generation associated with peak electricity demand; add requirements for reporting activity data for prescribed fires; clarify expectations for reporting data for airports, rail yards, commercial marine vessels, and locomotives; change requirements for nonpoint sources when the EPA has published emissions methods; add a requirement for completing a nonpoint survey; change nonpoint source deadlines; change reporting requirements for nonpoint data when an Indian tribe reports; and make a variety of clarifications and administrative changes.

For owners/operators of facilities that meet criteria described in this proposal, the proposed revisions would require emissions reporting of hazardous air pollutants, except when an air agency is approved to report on their behalf; would require sources within Indian country not reported by an air agency to report all identified pollutants to EPA; and would require reporting of performance test and performance evaluation data to the EPA for all tests conducted after the effective date provided in the final rulemaking.

1.1 Background

The EPA promulgated the Air Emissions Reporting Requirements (AERR) in the *Federal Register* (73 FR 76539, December 17, 2008) to consolidate and harmonize the emissions reporting requirements of the oxides of nitrogen (NO_X) State Implementation Plan (SIP) Call (73 FR 76558, December 17, 2008 as amended at 80 FR 8796, February 19, 2015; 84 FR 8443, March 8, 2019) and the Consolidated Emissions Reporting Rule (CERR, 67 FR 39602, June 10, 2002) with the needs of the Clean Air Interstate Rule (CAIR, 70 FR 25161, May 12, 2005). The EPA subsequently promulgated revisions of Subpart A (80 FR 8787, February 19, 2015), to align Subpart A with the revised National Ambient Air Quality Standard (NAAQS) for Lead (Pb) (73 FR 66964, November 12, 2008) and the associated Revisions to Lead Ambient Air Monitoring Requirements (75 FR 81126, December 27, 2010), and to reduce burden on states and local air agencies by making minor technical corrections. On August 24, 2016, the EPA further revised Subpart A in the *Federal Register* (80 FR 58010) with the promulgation of the particulate matter (PM) with an aerodynamic diameter less than or equal to 2.5 microns ($PM_{2.5}$) SIP Requirements Rule to update the emissions reporting thresholds in Table 1 to Appendix A of this subpart.

Under the current AERR, state, local, and some tribal agencies[1] are required to report emissions of criteria air pollutants and precursors (collectively, CAPs) to EPA. Further, these agencies may optionally report emissions of hazardous air pollutants (HAP) and other pollutants. For simplicity in the remainder of this document, the term “states” will be used to denote all agencies that are currently reporting or that could/would report under any revision to the AERR. Required pollutants under the current rule are carbon monoxide (CO), NO_X, volatile organic compounds (VOC), sulfur dioxide (SO_2), ammonia (NH_3), $PM_{2.5}$, PM with an aerodynamic diameter less than or equal to 10 microns (PM_{10}), and lead (Pb). Some facilities must be reported as point sources (as defined by the current AERR at 40 CFR 51.50) based on potential-to-emit (PTE) reporting thresholds for CAPs and an actual emissions reporting threshold for Pb. The current AERR includes a lower set of point source reporting thresholds for every third year and,

[1]As prescribed by the Tribal Authority Rule (63 FR 7253, February 12, 1998), codified at 40 CFR Part 49, Subpart A, tribes may elect to seek treatment in the same manner as a state (TAS) status and obtain approval to implement rules such as the AERR through a Tribal Implementation Plan (TIP), but tribes are under no obligation to do so. However, those tribes that have obtained TAS status for this purpose are subject to the Subpart A requirements to the extent allowed in their TIP. Accordingly, to the extent a tribal government has applied for and received TAS status for air quality control purposes and is subject to the Subpart A requirements under its TIP, the use of the term state(s) in Subpart A shall include that tribe.

thus, states are required to report more facilities as point sources on these triennial inventory years. The remaining requirements in the current rule are for the triennial inventories only, for which stationary sources must be reported as county total "nonpoint" sources. Agricultural burning is included as a nonpoint source. States, except for California, must also provide inputs to the MOtor Vehicle Emissions Simulator (MOVES), while California must submit CAP emissions for onroad vehicles and nonroad equipment. States are also encouraged to participate in voluntary reporting of wildfire and prescribed burning activity data, such as the location and size of burning.

In addition to the annual and triennial reporting requirements in the current rule, the AERR serves as the reference for the NO_X SIP Call (40 CFR Part 51 Subpart G), Regional Haze requirements (50 CFR Part 51, Subpart P), Ozone SIP Requirements Rules (40 CFR Part 51, Subparts X, AA, and CC) and the $PM_{2.5}$ SIP Requirements Rule (40 CFR Part 51, Subpart Z). These other rules point to the AERR to define certain requirements related to emissions inventories for SIPs, collectively known as SIP planning inventories.

1.2 Purpose of the Proposed Rule

The proposed amendments in this action would ensure that communities have the data needed to understand significant source of air pollution that may be impacting them and ensure that the EPA has sufficient information to identify and solve air quality and exposure problems. The proposed amendments would also allow the EPA to have information readily available that the Agency needs to protect public health and perform other activities under the Clean Air Act (hereafter referenced as the CAA or "the Act"). The EPA has taken a systematic approach in developing this proposed action to ensure that key emissions information is collected in a streamlined way, while preventing unnecessary impacts to small entities within the communities we seek to inform and protect. The proposed amendments would continue EPA's partnership with states in a way that also respects the framework provided by the CAA.

1.3 Authority for the Proposed Rule

The EPA promulgated the original AERR in 2008 with the intent of streamlining various reporting requirements including those of Section 182(a)(3)(A) for ozone nonattainment areas and Section 187(a)(5) for CO nonattainment areas, those under the NO_X SIP Call (40 CFR 51.122), and the annual reporting requirements of the CERR. The original AERR and its subsequent 2015 revision stem from these various CAA authorities in Sections 110, 114, 172, 182, 187, 189, and 301(a). Likewise, the authority for the EPA to amend the reporting requirements for CAPs as proposed in this rulemaking stems from these same CAA provisions that the EPA relied upon to promulgate the original AERR and amend it in the past. The EPA is not reopening any aspects of the AERR except for those where we are proposing revisions or taking comment as described in this preamble and the accompanying draft regulatory text revisions.

This proposed action would additionally require that owners/operators of certain point sources report certain information on HAP to support the EPA and state needs for HAP data. Sections 114(a)(1) and 301(a) of the CAA provide the authority for the HAP reporting requirements contained in this proposed action. These provisions authorize the EPA to collect data routinely from owners/operators of emissions sources and other entities for the purpose of carrying out the provisions of the Act.

Section 114(a)(1) of the CAA authorizes the Administrator to, among other things, require certain persons (explained below) on a one-time, periodic, or continuous basis to keep records, make reports, undertake monitoring, sample emissions, or provide such other information as the Administrator may reasonably require. The EPA may require this information of any person who (i) owns or operates an emission source, (ii) manufactures control or process equipment, (iii) the Administrator believes may have information necessary for the purposes set forth in CAA Section 114, or (iv) is subject to any requirement of the Act (except for manufacturers subject to certain Title II requirements). The information may be required for the purposes of (1) developing an implementation plan such as those under Sections 110 or 111(d), (2) developing an emission standard under Sections 111, 112, or 129, (3) determining if any person is in violation of any standard or requirement of an implementation plan or emissions standard, or (4) "carrying out any provision" of the Act (except for a provision of Title II with respect to manufacturers of new motor vehicles or new motor vehicle engines).[2]

The scope of the persons potentially subject to a Section 114(a)(1) information request (*e.g.*, a person "who the Administrator believes may have information necessary for the purposes

[2] Although there are exclusions in section 114(a)(1) regarding certain Title II requirements applicable to manufacturers of new motor vehicle and motor vehicle engines, section 208 authorizes the gathering of information related to those areas.

set forth in" Section 114(a)) and the reach of the phrase "carrying out any provision" of the Act are quite broad. The EPA's authority to request information extends to persons not otherwise subject to CAA requirements and may be used for purposes relevant to any provision of the Act. It is appropriate for the EPA to gather the emissions data required by this proposed action because such information is relevant to EPA's ability to carry out a wide variety of CAA provisions, as illustrated by the following description of the uses of such emissions data by EPA.

The EPA's need for CAP emissions data is well documented by the existing records for the various past AERR rulemaking actions located in the docket for this proposed action. Since the prior AERR promulgation, the EPA has recognized a gap in the current AERR approach to collect CAP emissions from all relevant facilities. The current AERR imposes a requirement on states to "inventory emission sources *located on nontribal lands* and report this information to EPA." 40 CFR 51.1 (emphasis added). First, the phrase "nontribal lands" is not defined and may be leading to confusion. Further, data from sources located within the geographic scope of Indian country (as defined by 18 U.S. Code § 1151) are relevant for many purposes, including regional and national analyses to support the implementation of the Regional Haze Program and NAAQS for ozone and $PM_{2.5}$. To address this explicit data gap, the EPA proposes, based on the authority provided by CAA Section 114(a), to require reporting directly from certain facilities to the EPA. Specifically, the EPA is proposing that facilities located within Indian country for which the relevant tribe does not have Treatment as a State (TAS) status or approval to submit emissions through a Tribal Implementation Plan (TIP), and which are outside the geographic scope of the relevant state's implementation planning authority,[3] will report directly to EPA.

The EPA's need for HAP emissions data stems from CAA requirements that the EPA is expected to meet. For example, the EPA has many authorities and obligations for air toxic regulatory development under the many provisions of CAA Section 112, including technology

[3] EPA is using the phrase "implementation planning authority" in this context to reflect the fact that in some cases states may administer approved SIPs in certain areas of Indian country. For instance, in *Oklahoma Dept. of Envtl. Quality v. EPA*, 740 F.3d 185 (D.C. Cir. 2014), the D.C. Circuit held that states have initial CAA implementation planning authority in non-reservation areas of Indian country until displaced by a demonstration of tribal jurisdiction over such an area. Under the D.C. Circuit's decision, the CAA does not provide authority to states to implement SIPs in Indian reservations. However, there are also uncommon circumstances where another federal statute provides authority for a particular state to administer an approved implementation plan in certain areas of Indian country, which may include certain Indian reservations.

reviews pursuant to CAA Section 112(d)(6), and risk reviews under CAA Section 112(f)(2). These provisions are additionally impacted by Executive Order 12898, which overlays environmental justice considerations for the EPA to assess as part of such work. HAP emissions data also can be useful in further refining chemical speciation to better meet the Agency's responsibilities under CAA Part D that require air quality modeling using emissions data to support NAAQS implementation. VOC chemical speciation is a critical part of such modeling and can be informed by emissions of HAP VOC. The EPA is additionally authorized (and in some cases, obligated) to assess the risks of pollutants, and EPA's Integrated Risk Information System (IRIS) program uses HAP emissions data and estimated modeled risk from those data to allow the EPA to prioritize which pollutants most need attention. Finally, the EPA implements compliance and enforcement programs per CAA Sections 113 and 114(a), (b), and (d), and HAP emissions data would support prioritization of those compliance and enforcement efforts. This discussion is not a comprehensive listing of all the possible ways the HAP information collected under this proposed action could assist the EPA in carrying out any provision of the CAA. Rather it illustrates how the information request fits within the parameters of EPA's CAA authority.

The EPA has also identified that many air emissions sources operating in Federal waters are not subject to emissions reporting under this subpart. The CAA Section 328 provides the EPA the authority to "establish requirements to control air pollution from Outer Continental Shelf sources located off-shore of the States along the Pacific, Artic, and Atlantic Coasts, and along the United States Gulf Coast off the State of Florida eastward of longitude 87 degrees and 30 minutes ("OCS sources") to attain and maintain Federal and State ambient air quality standards and to comply with the provisions of part C of subchapter I of [the CAA]." To support the Agency in carrying out this function under the CAA, including data gathering for OCS sources, the EPA is proposing revisions to this subpart for owners/operators of such sources to report emissions data to EPA.

1.4 Summary of RIA Results

This proposed rule will impose costs on multiple industries, and state, local, and tribal authorities, while providing the EPA much additional emissions data to facilitate understanding of a variety of air quality issues, improve future rulemaking, and provides benefits to the public, industry, and investors. The proposed rule does not require additional source measurement, but rather that owners/operators and states rely on the best available data. The key results of this RIA are as follows:

Compliance Costs: The proposed rule's cost impact on State, local, tribal government authorities is estimated at $28.5 million on average annually from 2024 to 2026, and then is estimated at $27.7 million in 2027. For owners and operators of affected sources, the proposed rule's cost impact is estimated at $88.9 million on average annually from 2024 to 2026, and then is estimated at $450.1 million in 2027. Thus, the proposed rule's total cost impact is estimated at $117.4 million on average annually from 2024 to 2026, and then is estimated at $477.9 million in 2027. The increase in costs for owners and operators of affected sources in 2027 reflects full implementation of the proposed rule if finalized for the entire population of affected sources. For the 2024-2026 time period, the EPA estimates the proposed rule would impact 85 state/local/tribal respondents, 40,315 owners/operators gathering certain data for reporting starting in 2027, and 819 owners/operators of facilities within Indian country for reporting in 2026. Also during this period, the EPA estimates that owners/operators of 13,420 facilities would report source test and performance evaluation data each year. Based on these proposed requirements, states would continue to collect emissions data from owners/operators of an estimated 13,420 facilities (based on state regulations requiring owners/operators to do so). Starting in 2027, owners/operators of an estimated additional 129,500 facilities from which this proposed rule would require HAP reporting and for about 235 owners/operators, reporting of small generation unit data.

In addition, the EPA's expected annual capital costs for its data systems needed from 2024 through 2026 are $600,000. EPA's additional annual system development, operations, and maintenance costs are expected to be $3,625,000. All costs are in 2021 dollars.

As part of fulfilling analytical guidance with respect to E.O. 12866, EPA presents estimates of the present value (PV) of the social costs of the proposal over the period 2024 to 2033. To calculate the present value of the social costs of the proposed rule, annual costs are discounted to 2023 at 3 percent and 7 discount rates as directed by OMB's Circular A-4. The EPA also presents the equivalent annualized value (EAV), which represents a flow of constant annual values that, had they occurred in each year from 2024 to 2033, would yield a sum equivalent to the PV. The EAV represents the value of a typical cost or benefit for each year of the analysis, consistent with the estimate of the PV, in contrast to the year-specific estimates mentioned earlier in the RIA. The present value (PV) of the compliance costs, in 2021 dollars and discounted to 2023, is $2.41 billion when using a 7 percent discount rate and $3.06 billion when using a 3 percent discount rate. The equivalent annualized values (EAV), an estimate of the annualized value of the costs consistent with the present values, is $343 million when using a 7 percent discount rate and $358 million when using a 3 percent discount rate. Table 3-27 in Chapter 3 provides the discounted costs for each year in the 2024-2033 analytical time period.

Small Business Impacts: Given the large number of affected sources and the potential for a substantial number of small entities (businesses or governments) to be impacted, the EPA agreed to have a Small Business Advisory Review (SBAR) Panel established to work with potentially affected small entities to examine alternatives to reduce potential impacts to these entities. In compliance with the Regulatory Flexibility Act (RFA) as amended by Small Business Enforcement Fairness Act (SBREFA), the SBAR Panel prepared a report documenting the activities and finding of the Panel. The findings and discussion of potential alternatives to mitigate small entity impacts are in Chapter 4 of the RIA.

Benefits: The benefits of this proposal are discussed qualitatively in Chapter 5. These benefits include but are not limited to greater disclosure of HAP emissions to the public, more extensive data for use in rulemakings by the EPA and state, local, and tribal authorities, and more data for use by investors in making decisions on investments. There are no monetized benefits estimates for this proposal since there are no changes in emissions or environmental effects that can be determined..

1.5 Previously Unquantified Costs of Inventories for State Implementation Plans

In addition to the burden associated with the proposed AERR revisions, this RIA provides a separate cost estimate in Appendix 3-A that quantifies the burden associated with activities that states/locals must do to create emissions inventories needed to comply with certain Clean Air Act requirements for SIPs. The costs associated with complying with these requirements have not previously been quantified by EPA, and they are provided here for public review and comment.

The reason for including this burden estimate in this RIA (and the associated ICR for the proposed rule) is the connection between the SIP requirements rules and the AERR. The AERR serves as the reference for the NO_X SIP Call (40 CFR Part 51 Subpart G), Regional Haze requirements (50 CFR Part 51, Subpart P), Ozone SIP Requirements Rules (40 CFR Part 51, Subparts X, AA, and CC) and the $PM_{2.5}$ SIP Requirements Rule (40 CFR Part 51, Subpart Z). The AERR is referenced as providing a required data format for numerous SIP inventory requirements. These other rules point to the AERR to define certain requirements related to emissions inventories for SIPs, collectively known as SIP planning inventories. Using the AERR to provide a required data format for SIP planning inventories promotes a consistent approach to emissions inventory data collection from states.

In addition, as mentioned in section IV of the preamble to the proposed rule, any new data elements finalized from this proposed action would be collected by states to meet requirements of the AERR and, therefore, would be available for states to submit as part of their planning inventories for SIPs. Thus, while the SIP inventory requirements are indirectly modified by this proposed action, the proposed AERR does not impose additional burden for nonattainment area inventories because this subpart uses the same requirements for both annual reporting of point sources and for states' planning inventories for SIPs. However, given the effect of changes in the AERR on SIP development, presenting the costs associated with the indirect modifications to SIP inventory requirements provides states with an understanding of what this burden impact may be.

1.6 Organization of this Report

This report presents the EPA's analysis of the potential benefits, costs, and other economic effects of the proposed AERR. This RIA includes the following sections:

- Chapter 2 presents a brief profile of the affected industries and sources.
- Chapter 3 describes the estimated costs and impacts of the regulation and the indirect impacts on SIP inventory requirements.
- Chapter 4 provides discussion and results of the Initial Regulatory Flexibility Analysis (IRFA).
- Chapter 5 presents a discussion of the benefits of the proposal, a qualitative comparison of the proposal benefits to the costs, and overall limitations of the analyses for this proposal.

2 INDUSTRY PROFILE

This proposal will impact a large number of industries and entities, and will impact a wide number of state, local and tribal government authorities. There will be 85 state/local/tribal government authorities that this proposal will affect in the 2024-2026 timeframe and in the year of full implementation, 2027 and beyond. There are estimated to be 120,954 facilities (40,315 per year) outside of state/local/tribal government authorities that this proposal will affect in the 2024-2026 timeframe and 129,490 sources in 2027 and beyond. Those industries and entities potentially regulated by this proposed action as listed in Table 2-1 include:

Table 2-1: List of Impacted Categories and Entities

Category	NAICS code[a]	Examples of regulated entities
State/local/tribal government	92411	State, territorial, and local government air quality management programs. Tribal governments are not affected, unless they have sought and obtained treatment in the same manner as a state under the Clean Air Act and Tribal Authority Rule and, on that basis, are authorized to implement and enforce the Air Emissions Reporting Requirements rule.
Major sources	Any	Owners/operators of facilities
Other (than major) sources		Owners/operators of facilities of:
	21xxxx, 22xxxx, 3xxxxx except for 311811	Industrial and manufacturing industries
	4247xx	Petroleum and Petroleum Products Merchant Wholesalers
	481xxx	Scheduled Air Transportation
	486xxx	Pipeline Transportation
	4883xx	Support Activities for Water Transportation

Category	NAICS code[a]	Examples of regulated entities
	493xxx	Warehousing and Storage
	5417xx	Scientific Research and Development Services
	54199x	Other Professional, Scientific, and Technical Services
	56191x	Packaging and Labeling Services
	5622xx	Waste Treatment and Disposal
	5629xx	Waste Management and Remediation Services
	61131x	Colleges, Universities, and Professional Schools
	62211x	General Medical and Surgical Hospitals
	62231x	Specialty (except Psychiatric and Substance Abuse) Hospitals
	811121	Automotive Body, Paint and Interior Repair and Maintenance[b]
	8122xx	Death Care Services
	812332	Industrial Launderers
	92214x	Correctional Institutions
	927xxx	Space Research and Technology
	928xxx	National Security and International Affairs

[a] North American Industry Classification System.

[b] Excluding small businesses for primary NAICS 811121.

3 COST AND IMPACT ESTIMATES

This chapter presents the EPA's estimates of the costs associated with the proposed rule. Unless otherwise noted, the proposed revisions in this action would apply for the first inventory reporting year after the promulgation of this rule if finalized (likely in 2024). At the time of this proposal, the EPA expects that the final rule will be in place for the 2023 triennial reporting year, though some provisions would not take effect until later years. These proposed deadlines depend on an assumed final promulgation date prior to December 2023. If a final version of this subpart were delayed beyond December 2023, the EPA may delay the phase-in of earlier deadlines.

3.1 Baseline for the Proposed Rule

The impacts of regulatory actions are evaluated relative to a baseline that represents to the extent possible the world without the regulatory action. It is the starting point for conducting an analysis of the potential benefits and costs for a proposed regulation. This definition of a baseline for evaluation of a regulatory action is consistent with the EPA Economic Guidelines.[4]

In past years, the information collection under the existing AERR has coordinated the various state emission inventory reporting requirements and has streamlined the activities involved in submitting certain emissions data to the EPA. The proposed collection would (1) continue this coordination to enable the EPA to achieve uniformity and completeness in a national inventory to support national, regional, and local air quality planning and attainment of NAAQS and planning needed for meeting regional haze requirements, (2) greatly improve HAP data collections that are voluntary under the existing AERR, but are proposed herein to become mandatory, (3) fill other identified gaps in emissions inventories for sources within Indian country, for certain small generation units, and for prescribed fires nationally, and (4) greatly improve the availability of data necessary for creating emissions factors.

The draft Information Collection Request (ICR) for this proposed action includes collection of both mandatory and voluntary data from states (defined to include certain local and tribal governments) for annual and more extensive triennial collections of emissions data. The

[4] U.S. EPA, Guidelines for Preparing Economic Analyses, December 2010. Chapter 5 (Baseline). P. 5-1. Available on the Internet at https://www.epa.gov/sites/default/files/2017-09/documents/ee-0568-05.pdf.

draft ICR also covers the proposed collection of mandatory and voluntary data from owners/operators that emit emissions at or above proposed reporting thresholds and that perform source tests. The baseline for this proposed action presumes that data that is currently voluntarily collected is to be an incremental impact and not one that is to be considered in the analytical baseline. While the current AERR provides support for voluntary data collection, and many States and other authorities provide a considerable amount of useful emissions data, the EPA has significant evidence that the current voluntary reporting program from states is insufficient to meet the Agency's data needs. In addition, under the current voluntary program, some states submit extensive HAP data, while other states submit little or no HAP data. Finally, the longstanding absence of stationary source data from sources within Indian country and the lack of success in collecting sufficient data for estimating emissions of many prescribed fires in many states is indicative of several significant gaps in emissions data needed by the EPA to carry out many required programs. Given the incompleteness of emissions data, we consider the baseline for this proposed action to best be one that does not include voluntary collection of emissions data by states and other authorities. While the focus of the draft ICR is the 2024-2026 period, additional costs from 2027 and beyond are included in this RIA to reflect additional costs associated with full implementation of the proposed revisions.

The fact many of the data collection requirements in the proposed rule are designed to codify data collection efforts that are currently voluntary is something that we note given its importance in characterizing the impacts of this proposal. As an example, the percentage of the burden estimate that is considered voluntary for States to collect emissions data from nonpoint, mobile and event sources is roughly one-third of the total burden estimate, as shown later in Chapter 3. Given that voluntary data collections activities, such as those for HAP emissions, will now become mandatory, one can argue that there may not be an incremental impact from codifying the voluntary activities. Thus, if this position is accurate, then the costs for the proposal as incremental from a baseline as defined earlier in this RIA may be overestimated.

3.2 Labor Cost Assumptions

Labor rates as applied for estimating costs in this RIA were developed using the U.S. Department of Labor, Bureau of Labor Statistics Web site as of May 2021 as accessed in March

2022. Hence, the labor costs assessed in this report are in 2021 dollars. Table 3-1 below provides the rates for state government as well as the rates for industries. An overhead rate of 110 percent was applied to all rates to derive the loaded rates (*i.e.*, including fringe benefits) to be used in the cost estimates. This is consistent with ICRs prepared for other EPA rulemakings.

Table 3-1: Labor Rates

Employee Type	Employer	Mean Hourly Wage	Loaded Hourly Rate	Source
Environmental Engineer	State Government	$43.25	$90.83	https://www.bls.gov/oes/current/naics4_999200.htm#17-0000
Architectural and Engineering Managers	State Government	$56.64	$118.94	https://www.bls.gov/oes/current/naics4_999200.htm#17-0000
Network and Computer Systems Administrator	State Government	$38.58	$81.02	https://www.bls.gov/oes/current/naics4_999200.htm#17-0000
Environmental Engineer	Any	$48.18	$101.18	https://www.bls.gov/oes/current/oes172081.htm
Architectural and Engineering Managers	Any	$76.43	$160.50	https://www.bls.gov/oes/current/oes119041.htm

3.3 Number of state, local, and tribal (SLT) respondents

Under the proposed AERR, 54 states (including the District of Columbia and 3 territories) and, depending on the reporting year being annual or triennial, additionally between 23 and 31 local and tribal air agencies would be subject to the national reporting requirements. These are the same numbers as are affected under the current AERR. For the 2024-2026 period covered by this RIA, these state, local, and tribal (SLT) air pollution control agencies would be required to compile and report emissions information for large stationary point sources on an annual basis, and for smaller point sources, stationary nonpoint and onroad and nonroad mobile sources on a 3-year basis. As described in Appendix A to the ICR Supporting Statement, point sources and prescribed burning reports would be reported every year starting with the 2026 inventory year, reported in 2027 and therefore after the period of this RIA. For certain reporting activities, a fewer number of state, local, or tribal agencies are required to report, or voluntarily do so. These lower numbers are reflected in the relevant tables of this section and in the summary table provided in Section 3.7 of this RIA.

Additionally, based on expressed interest to date in the Combined Air Emissions Reporting System(CAERS), an emissions collection system has been developed by the EPA to streamline reporting from owners/operators to multiple EPA and state programs , EPA estimates that 12 state/local agencies will use CAERS for reporting in 2024.[5] Based on the proposed AERR revision requiring some owners/operators to use CAERS for reporting HAP, EPA projects that 30 state/local agencies will use CAERS for reporting in 2025 and 54 in 2026. Furthermore, reporting that occurs in 2025 and 2026 is for the "smaller" set of sources due to higher proposed thresholds for those years in Table 1A in the Appendix A of the ICR for the proposed revisions.[6] Reporting in 2024 is for more sources than in 2023 because 2023 is a triennial reporting year and includes a larger number of point sources as also proposed in Table 1A in the Appendix A of the ICR for the proposed revisions. As a result, EPA has assumed an average 32 state/local agencies will use CAERS for reporting across the 3 years (*i.e.*, (12+30+54)/3) for the burden calculations associated with sources reported in 2025 and 2026.

3.4 Burden for SLT respondents

The SLT respondent burden for complying with the proposed AERR revision includes burden to meet both the annual and the 3-year (triennial) cycle reporting requirements. Within the annual and triennial reporting requirements associated with the proposed AERR revision, the burden has been estimated separately for one-time activities, annual reporting, and triennial reporting. In the subsections below, each of these individual elements are handled separately.

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[5] More information on CAERS can be found at https://www.epa.gov/combined-air-emissions-reporting/combined-air-emissions-reporting-system-caers. CAERS can be used for meeting requirements in the current AERR and can be used in part to meet reporting requirements for the TRI. CAERS version 4 became available on February 6, 2023.

[6] This smaller set of sources has been referenced as "Type A" sources in previous versions of the AERR, as well as the current version. However, EPA is proposing to eliminate the Type A and Type B terminology because the proposed revisions would require point sources to report every year starting with the 2026 inventory year.

The SLTs reporting to EPA under the AERR maintain their own air quality management programs, which include permitting programs and annual emissions fee programs for their point sources. These fees help offset costs associated with running these emissions programs. Nevertheless, the RIA includes as part of the burden estimates, those SLTs' efforts to collect and manage emissions inventory data for these purposes, much of which occur irrespective of the AERR. However, the RIA does not include certain efforts of SLTs unrelated to requirements of the AERR or the associated burden on their owners/operators. Table 3-2 below provides a summary of the included and excluded elements of the burden estimate. In this table, the last row represents costs associated with SLTs reporting data to EPA that are voluntarily collected and reported along with their required data. These types of voluntary reports include additional facilities that do not meet the AERR point source thresholds and emissions of HAP.

Table 3-2: Cost estimates associated with these efforts included*

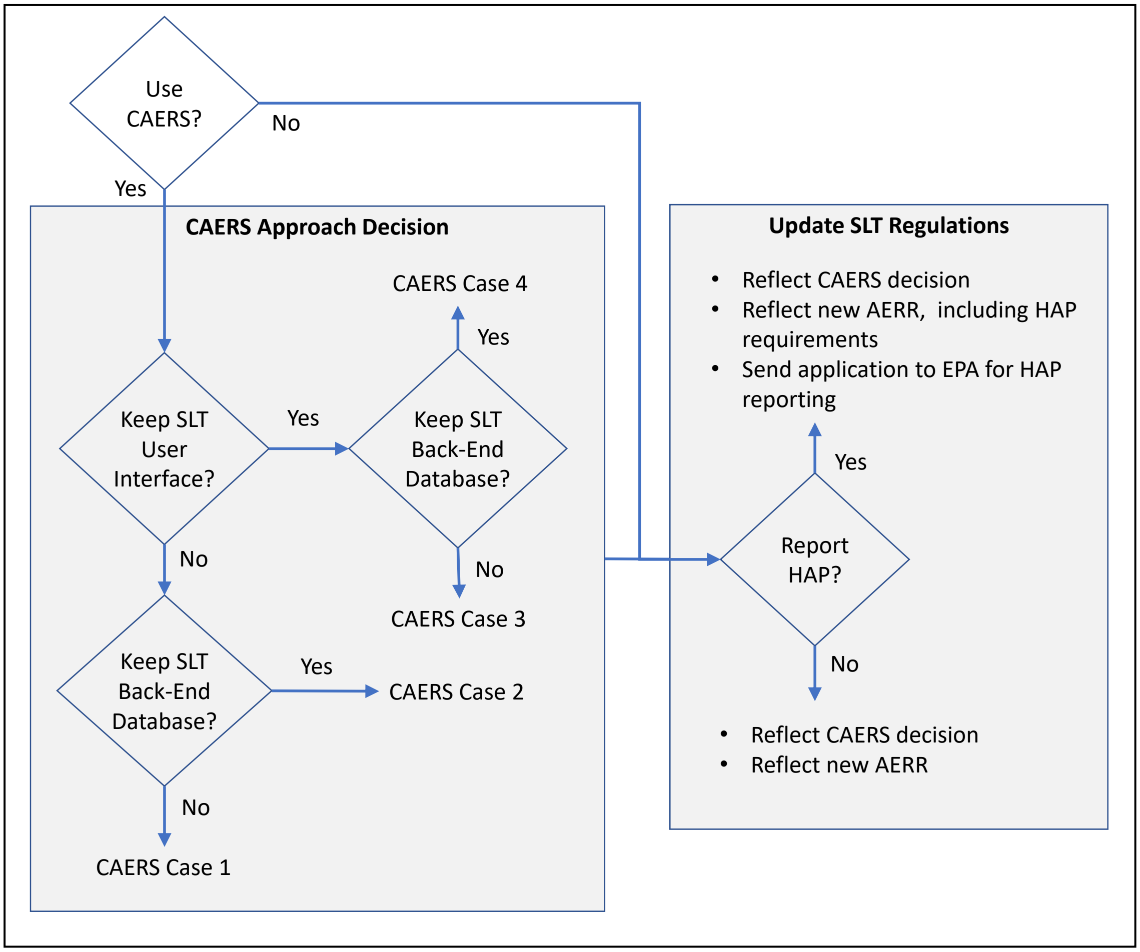
	Owners/operators report		**SLT collects from**	**SLT reports**
Point Source…	**to EPA**	**to SLT**	**owners/operators**	**to EPA**
Data collected because of proposed AERR requirement	Included	Included	Included	Included
Optional data fields associated with pollutants required by proposed AERR	Included	Included	Included	Included
Data collected because of SLT requirement	N/A	N/A	N/A	Included

*Data included in cost estimates consistent with analysis baseline definition in Section 3.1.

The proposed AERR revisions would lead to SLTs needing to make two key decisions that would impact how they implement any final requirements. While there is no requirement to participate in CAERS, an SLT's choice of whether to participate or not could significantly impact the costs of compliance and the mechanism of compliance with point source reporting requirements. As shown in

Figure 3-*1* below, EPA recommends that states first determine whether they intend to participate in CAERS and in what way, and then determine whether they intend to report HAP on behalf of owners/operators. As illustrated in the figure, SLTs should decide whether to retain the user interface ("front end") of their current emissions data collection system and whether to retain the database ("back end") of their system. The front end is the user interface (often web-based) that owners/operators use to submit the data. Occasionally the SLT front end interacts with an SLT electronic permitting system. The back end is the master storage location for the data collected by the SLT, and often interacts with other SLT data systems. CAERS is being constructed to support different SLT use of CAERS for features from the front end, back-end, both, or neither. Even SLTs that choose not to participate in any of the CAERS cases shown can choose to reduce burden on facilities via collaboration with the CAERS features, such as expected quality assurance services, shared code tables, and other necessary aspects of electronic data collection and compilation.

Figure 3-1: Decision tree representing SLT decisions about implementing proposed requirements



Once an SLT has determined their plans for interacting with CAERS, the state should then determine whether it will report HAP on behalf of owners/operators. The combination of this decision and their decision on CAERS should then need to be part of the process of updating SLT regulations. The EPA expects most states would need to update their emissions collection regulations to comply with aspects of these proposed revisions, even if the SLT chooses not to participate in CAERS and not to report HAP on behalf of owners/operators. For example, this action proposes new requirements to collect information regarding latitude/longitude of release points, Title V permit identifiers, and regulation applicability. The EPA does not believe that SLTs will meet those requirements without collecting at least some new information. The choice of CAERS case impacts the overall burden on states described in Section 3.7.

3.4.1 SLT burden for one-time activities under the proposed AERR

To prepare for proposed changes to the AERR that would take effect for the 2026 reporting year, SLTs would have both required and voluntary one-time efforts that would occur during the period covered by the RIA. One-time activities would be related to proposed changes in point source reporting and in prescribed fire activity data requirements that would take effect in 2027. For point sources, these activities depend on three SLT choices:

- Whether the SLT will adopt CAERS to support point source emissions collection or keep the SLT point source emissions collection system,
- Whether the state will report HAP on behalf of owners/operators, and
- Whether the state will maintain their own HAP collection program.

These activities and associated choices are:

States could choose activity A-1 (higher burden) or A-2 (lower burden):

A-1. Update SLT point source emissions collection system to accommodate new AERR requirements consistent with SLT regulation update.	**OR**	A-2. Adopt CAERS as SLT point source emissions collection system (case 1 or 2).

States could choose activity B-1 through B-3 (higher burden) or B-4 through B-7/B-8 (lower burden)

B-1. Revise SLT emissions collection regulation to include HAP reporting consistent with AERR requirements. B-2. Update SLT point source emissions collection system to accommodate new HAP requirements. B-3. Apply to EPA for permission to report HAP on behalf of owners/operators.	**OR**	B-4. Rely on EPA HAP collection via CAERS (case 1 or 2). *and, for states with HAP collection program that they want to create or maintain:* B-5. Create and deliver training to owners/operators. B-6. Curate list of facilities to remove duplicates. B-7. Other coordination activities including ensuring any CAERS customizations meet SLT requirements.

B-8. Optionally, instrument SLT emissions collection system to receive data from CAERS.

C. Revise SLT emissions collection regulations to meet new AERR requirements for point sources: new data fields, newly mandatory data fields, and reporting of daily activity data for small generation units (this could exclude updates for HAP reporting depending on SLT choice to rely on EPA collection for HAP or not).
D. Develop SLT regulations to collect prescribed burning data consistent with proposed AERR.
E. Develop SLT data collection system for prescribed burning data to conform with EPA collection and reporting requirements.
F. Develop quality assurance and other techniques for prescribed burning data.

The EPA and SLTs have envisioned four cases for how an SLT could interact with CAERS, which are relevant to activities A and B above. Under CAERS cases 1 and 2, the SLT would choose to retain its data system but rely on some aspects of the CAERS system for data sharing with other emissions programs. SLTs could also choose CAERS case 3, in which the SLT uses the CAERS user interface and retains its back-end database or CAERS case 4, where the SLT uses CAERS for both the collection and the storage of the point source emissions inventory data.

For activity B above, if an SLT chooses the path represented by activity B-4 through B-8 (the CAERS path), the SLT would have various additional choices depending on their circumstances. In this case, the SLT would be electing to use CAERS in some form. For example, SLTs that do not currently have a HAP collection program or wish to eliminate their HAP collection program and rely on EPA's collection, could choose the lower burden option B-4 alone. For states under the CAERS path that wish to maintain their HAP collection program, an SLT could choose to:

1. Adopt CAERS as the SLT data system, which would require one-time activities listed as activities B-5, B-6, and B-7 (needed for CAERS case 4);
2. Connect the SLT data system to receive data from CAERS, which would include activity B-8 (needed for CAERS case 3); or

3. Not engage with CAERS using any of the four cases.

SLTs with HAP collection programs that choose not to participate in CAERS would potentially cause at least some owners/operators regulated under the SLT HAP reporting requirements to have to report both to CAERS and separately to the SLT system.

The tables below provide estimated hours burden for one-time activities per state respondent. Table 3-3 provides one-time activities for point sources, and Table 3-4 provides the estimated burden in hours for states to do additional one-time activities to adopt CAERS case 3 or case 4. Table 3-5 provides the estimated hours burden for one-time activities for developing a prescribed burning collection approach. Finally, Table 3-6 provides the annualized burden per state across all of the one-time activities, including costs.

Table 3-3: State respondent burden hours for one-time point source activities

Activity	Hours Per Respondent			
	Engineering Managerial Hours	**Engineering Technical Hours**	**IT Admin Hours**	**Total**
Point sources - required activities				
1. Revise SLT regulations to accommodate new required data fields and reporting of daily activity data for small generation units.	52	520		572
2. Update SLT data system to accommodate new point source data fields and daily activity data for small generation units.	124	200	1,040	1,364
Subtotal	**176**	**720**	**1,040**	**1,936**
Point sources - optional activities when including HAP reporting				
1. Revise SLT regulations to adjust HAP reporting based on EPA requirements	104	1,040		1,144

Activity	Hours Per Respondent			
	Engineering Managerial Hours	Engineering Technical Hours	IT Admin Hours	Total
2. Update SLT data system to accommodate new point source HAP reporting	144	400	1,040	1,584
3. Complete and submit application to EPA for permission to report HAP on behalf of facilities.	12	120		132
Subtotal	**260**	**1,560**	**1,040**	**2,860**

Table 3-4: State respondent burden additional voluntary burden for one-time point source activities when using CAERS

Activity	Hours Per Respondent			
	Engineering Managerial Hours	Engineering Technical Hours	IT Admin Hours	Total
CAERS Case 3 and 4 (State uses only CAERS)				
1. Update and deliver training to owners/operators	24	240		264
2. Curate list of facilities to remove duplicates	16	160		176
3. Other coordination activities including ensuring any CAERS customizations meet SLT requirements.	48	480		528
CAERS Case 3 (CAERS front end and SLT database)				
4. Modify SLT system to receive data from CAERS user interface.	104		1,040	1,144
Subtotal - Case 3	**192**	**880**	**1,040**	**2,112**
Subtotal - Case 4	**88**	**880**		**968**

Table 3-5 : State respondent burden hours for one-time activities to develop prescribed burning data collection

Activity	Hours Per Respondent			
	Engineering Managerial Hours	Engineering Technical Hours	IT Admin Hours	Total
1. Revise SLT regulations to collect prescribed burning data.	312	1,040		1,352
2. Develop data collection system for prescribed burning data to conform with EPA collection and reporting requirements.	416	1,040	3,120	4,576
3. Develop quality assurance and other techniques.	72	480	240	792
Total	**800**	**2,560**	**3,360**	**6,720**

Table 3-6: Annualized one-time burden per state respondent

Activity	Manager Hrs/Yr @ $118.94	Technical Hrs/Yr @ $90.83	IT Hrs/Yr @ $81.02	Hours/ Year	Labor Cost/ Year
Prescribed Burning Required Activities					
Develop prescribed burning data collection	267	853	1,120	2,240	$199,963
Point Sources Required Activities					
Reporting with EIS or CAERS case 1, 2 or 3: Update regulations and data storage system	59	240	347	645	$56,862
Reporting with CAERS case 4: Update regulations	17	173	0	191	$17,805

Activity	Manager Hrs/Yr @ $118.94	Technical Hrs/Yr @ $90.83	IT Hrs/Yr @ $81.02	Hours/ Year	Labor Cost/ Year
Point Sources Voluntary Activities					
Revise regulations, update SLT data system for HAP, and complete/submit application to EPA to report on behalf of owners/operators.	87	520	347	953	$85,624
Transition Tasks for CAERS Case 3	123	533	693	1,349	$119,203
Transition Tasks for CAERS Case 4	29	293	0	323	$30,131

3.4.2 SLT annual activities under proposed AERR

Annual SLT activities would be in support of submitting emissions data for annually reported point sources with potential to emit 2,500 tons per year (tpy) of NO_x, CO, or SO_2; or 250 tpy of VOC, PM_{10}, $PM_{2.5}$ or NH_3. The key steps for the SLTs to perform the work to meet the AERR requirements are:

- Maintain the state's data system to collect data from facilities;
- Collect emissions data and other associated information;
- Train staff in coding and submissions techniques;
- Quality-assure and quality-control emissions data and resolve errors and anomalies prior to submitting to the EIS electronic quality-assurance;
- Maintain records associated with data submitted by sources;
- Extract the necessary data from the state electronic data system;
- Convert any facility inventory data (*i.e.*, attributes of the facility including details about its units, processes, release points and controls) for new facilities into the XML submittal format;
- Convert the point emissions data into the XML submittal format;
- Run the automated quality-assurance checks provided in the EPA data system and resolve any critical errors;

- Submit the final file to EPA; and
- Respond to any follow-up inquiries and point source data reviews from EPA.

In addition, SLTs may optionally include in their submissions additional data, including emissions for facilities that are not required to be reported annually as well as HAP emissions. To accomplish this optional work, the same activities would be done as are listed above to meet AERR requirements, but that work would take incrementally more effort.

For two of the three years in each triennial cycle, the agencies submit only the largest sources as described above. To help estimate the time needed to report emissions for only the annually reported sources, we estimate the number of such sources by considering the emissions reporting thresholds. The AERR reporting thresholds are PTE thresholds; however, EPA does not collect PTE data. The EPA only collects actual emissions, and actual emissions are lower than PTE values. Since EPA does not collect data on PTE, it is difficult to know with certainty the number of annually reported sources. Furthermore, many states voluntarily submit many more facilities than those required. For these reasons, EPA must estimate the number of required sources for annual reporting.

Based on an analysis of the 2017 NEI, 1,055 facilities had *actual* emissions greater than the 2024 and 2025 inventory year PTE thresholds of 2,500 tpy of NO_x, CO, or SO_2, or 250 tpy of VOC, PM_{10}, $PM_{2.5}$, or NH_3. To adjust for the undercounting due to actual emissions, we retained the number of estimated facilities from the previous AERR ICR, which is about 2.3x the facility count based on actual emissions. As a result, we assume 2,510 of the 2024- and 2025-year sources are reported for the purposes of this analysis across 54 state/territorial and 23 local and tribal air agencies. This equates to an average of 33 annually reported sources that would be required on average per agency for 2 of the 3 years. The number of required sources can be much larger for heavily industrialized states and smaller (all the way down to zero) for some smaller states and local agencies.

To account for states that we estimate will use the CAERS for the required annually reported sources in the 2023 through 2025 emission inventory years, we have considered the reduction in effort associated with the steps for reporting to EIS necessary only when a state maintains their own data system and thus needs to convert that data for submission to the EIS.

3.4.3 *SLT triennial activities under proposed AERR*

Triennial Point Source Activities and Assumptions

For triennial reporting in 2024, SLTs would have the same point source activities as described for the annual reporting above but completing those activities would take longer because more sources would be reporting. Rather than the PTE thresholds listed above for annual reporting, SLTs would submit additional emissions data for point sources that are smaller than the annually reported sources and have a potential to emit 100 tpy of NO_x, SO_2, VOC, PM_{10}, $PM_{2.5}$, or NH_3; or 1,000 tpy of CO; or that have actual emissions of at least 0.5 tons of lead (Pb). Further, the emissions reporting thresholds for facilities within nonattainment areas are even lower for triennially reported point sources, in accordance with Table 1A of Appendix A to Subpart A of 40 CFR part 51.

Like annually reported sources, the triennial reporting thresholds are based on PTE values, but EPA does not collect PTE data. Fortunately, the triennial source reporting criteria are nearly the same as the major source definition for criteria pollutants and precursors, and a list of such major sources is available from the EPA Enforcement and Compliance History Online (ECHO) web application. ECHO is fed by reporting of compliance data from the state agencies. These data are sent from states to the ECHO system many times per year, which helps ensure that we are using updated information.

For the previous version of the AERR ICR using the ECHO database, EPA determined that there are 13,408 Major Title V facilities nationwide. To adjust this facility-count for the triennial definition, we also needed to consider the triennial threshold for Pb, which is 0.5 tons of actual emissions per year (and more stringent than the major source definition). Since the Pb threshold is based on actual emissions, we used the 2014 NEI to determine that just 12 additional facilities have 0.5 tons of Pb emissions or more and are not otherwise identified as major sources.[7] The resulting triennial source facility total used for this work is 13,420. Because the

[7] This analysis was repeated with 2017 NEI data and only 6 such facilities were identified, but the difference is so small we have retained the facility count based on 2014.

number of major source facilities has decreased[8] since the previous ICR, these numbers provide a conservative (or overstated) estimate of the number of facilities.

Since there are 85 reporting agencies in triennial years, we estimate an average of 158 (13,420 facilities/ 85 agencies = 158 facilities/agency) facilities to be reported per agency for the triennial inventories. The number of sources can be much larger for the large, heavily industrialized states, and smaller for some SLT agencies. Because much of the effort needed to report the point source emissions data from the state data systems to EPA involves automated data manipulations, there are economies of scale for the states with many sources. The idea that states benefit from economies of scale is further supported by the actual number of facilities reported. States reported about 72,000 facilities (which excludes most airports and railyards that are reported differently) in the most recent 2020 triennial reporting years, which is far greater than the 13,420 facilities that we estimate are required.

Other Triennial Activities for SLTs

In addition to the triennial point source collection and reporting, the AERR would include additional triennial activities for SLTs:

- For nonpoint sources, complete a nonpoint survey to indicate plans for reporting each nonpoint category;
- For nonpoint sources with EPA-provided emissions calculation tools (excluding commercial marine vessels and locomotives), either submit nonpoint tool input data or review, comment on, and accept EPA-provided nonpoint tool inputs. This includes compiling and reporting total point source activity data for those data categories for which EPA provides templates for use in reconciliation between point and nonpoint sources to avoid double counting (*e.g.*, industrial, commercial, and institutional boilers);
- For nonpoint sources without EPA-provided methods and tools, estimate emissions, run quality assurance checks, format data into XML format, and submit emissions data and documentation.

[8] As described in the ICR Supporting Statement, the revised estimate for CAP major facilities based on 2017 NEI and additional data sources is 12,379.

- For nonpoint sources in states that overlap with tribes that submit data, adjust nonpoint submissions for tribal boundaries.
- Either submit airport activity data (*i.e.*, landings and takeoffs) or review EPA-provided data, submit comments on that data, and/or notify EPA that the state accepts that data.
- Either submit rail yard activity data and associated documentation or review EPA-provided data, submit comments on that data, and/or notify EPA that the state accepts that data.
- For commercial marine vessels and locomotives, either report annual actual emissions and associated documentation, provide comment on EPA-provided emissions, or accept EPA-provided emissions.
- For all states except California, develop inputs to the MOtor Vehicle Emissions Simulator (MOVES) for onroad mobile and nonroad mobile sources. Review and revise draft data from EPA and/or collect such data, review and edit that data, format data into required XML format, run quality assurance checks, and submit the data to EPA.
- For California, develop and report statewide inventory emission estimates for onroad and nonroad mobile sources for all criteria pollutants. Develop model inputs for California's mobile source model(s), run the California mobile source model(s), run quality assurance checks, format data into XML format, and submit emissions data and documentation.

Additionally for triennial years for this RIA period, SLTs could perform several additional voluntary activities under the AERR collection:

- For nonpoint sources with EPA-provided methods and tools, estimate emissions, run quality assurance checks, format data into XML format, and submit emissions data and documentation.
- For aircraft, ground support equipment (GSE), and/or rail yards, voluntarily estimate and submit emissions and documentation of the associated calculations.
- For prescribed fire, agricultural fire, and wildfires, review, comment on, and/or accept activity data and emissions data or submit emissions.

3.4.4 SLT burden for annual and triennial years

The SLT burden for annual and triennial years is presented in this section as an average per year. The burden hours are provided separately for data system activities, point source reporting, and nonpoint reporting. Furthermore, required activities are separated from voluntary activities.

Use of these averages should provide an overly conservative (larger) estimate of total burden hours because the burden values for the smaller agencies are being overestimated since they will have fewer sources than average, and the average burden values do not include the economies of scale experienced by the larger agencies. The likelihood that larger agencies may benefit from economies of scale is further supported by the actual number of facilities and pollutants reported in these years (the years in the 2020 triennial reporting period) as compared to those that we believe are required.

To account for states that we estimate will use the CAERS for the required annually reported sources in the 2023 through 2025 emission inventory years, we have considered the reduction in effort associated with the steps for reporting to EIS necessary only when a state maintains their own data system and thus needs to convert that data for submission to the EIS. As shown in Table 3-7 and Table 3-8, the rightmost column indicates which steps are necessary for agencies that use CAERS.

Maintaining SLT point source collection system

Table 3-8 summarizes the average hour burden estimates for operation and maintenance (O&M) of the SLT data system for collecting point source data from owners/operators in the state. The table includes 50 percent of a full-time employee (FTE) for information technology (IT) administration and additional hours for an engineer to provide guidance to IT administration, making minor annual updates to the data system, and user support. Major data system updates have been covered previously in Section 3.4.1 as a one-time activity during the period of this RIA and not included in Table 3-7. The engineering activities are about 20 percent of an FTE's time. Engineering managerial hours have been estimated as 10 percent of the engineering and IT administrative hours associated with each activity. The table includes estimates of O&M adjusted for estimated reductions in labor associated with CAERS cases 3 and 4.

Table 3-7: SLT data system operation and maintenance hours for NEI Collection from owners/operators

Activity	Hours Per Respondent				Applies to CAERS Cases?
	Engineering Managerial Hours	Engineering Technical Hours	IT Admin Hours	Total	
1. Collection system operation & maintenance (O&M)	112	80	1,040	1,232	case 3 @ 80 percent
2. Update collection system with new codes, emission factors, and other new information for reporting year	12	40	80	132	case 3 @ 80 percent
3. User support for point source emissions data reporting	36	320	40	396	case 3 @ 50 percent, case 4 @ 50 percent
Subtotal for System O&M EIS and Case 1 & 2	**160**	**440**	**1,160**	**1,760**	
Subtotal for System O&M with CAERS Case 3	**117**	**256**	**916**	**1,289**	
Subtotal for System with CAERS Case 4	**18**	**160**	**20**	**198**	

For states that choose CAERS case 3, EPA estimates that the burden of activities 1 and 2 are reduced by about 20 percent because the state would no longer need to maintain the public-facing user interface for their collection system. Activities 1 and 2 are eliminated for CAERS case 4. In both CAERS cases 3 and 4, EPA also assumes that user support is reduced by 50percent based on the streamlined processes put in place. The user support reduction would be averaged over the course of the 3-year period and would not be realized until the second and third years of CAERS implementation. Further, EPA has attempted to include only those hours associated with the sources and pollutants that EPA requires to be collected for reporting under the AERR (see also explanation provided in Table 3-2 above)). In other words, if SLTs incur additional burden (*e.g.*, more help desk requests) associated with collecting emissions data from facilities that the SLT chooses to collect, this RIA does not cover that burden. Based on this information, EPA estimates that the overall estimated O&M burden reduction for CAERS cases 3 and 4 are 27 percent and 89 percent, respectively.

EPA recognizes that many SLTs subcontract their point source emissions collection systems to a third party; however, the cost approach taken in later sections uses the hours estimates assumed in Table 3-7 as the basis for data system costs. This will be further addressed in Table 3-14 later in this section.

Annual and Triennial Point Source Reporting

In addition to the point source data system activities, Table 3-8 provides the average hour burden estimates for an SLT to perform point source reporting for the proposed AERR during the period of the RIA. The activities listed in this table match with those point source activities described in Sections 3.4.2 and 3.4.3 above).

In the hour estimates included in Table 3-8, EPA has not distinguished between collection and reporting of those sources and pollutants required to be reported versus those sources that SLTs report voluntarily. Unlike the incremental burden for SLTs to *collect* emissions from facilities not required by the AERR, the incremental burden to *report* these additional facilities is small. This is because states who report many additional sources and pollutants voluntarily do so using automated processes to export, convert, and send the data to EPA. Over many years of collecting data from SLTs, EPA has heard numerous times from such agencies that it's harder for these SLTs to exclude facilities and pollutants than simply to report both required and voluntarily provided facilities in every submission. Because of these considerations, EPA has not tried to separate out the hours by required and voluntarily reported facilities and pollutants, but rather (in this table) has attempted to estimate hours to reflect both required and voluntarily reported sources and pollutants.

Table 3-8: SLT point source reporting burden hours by activity

Activity	Hours Per Respondent			
	Engineering Managerial Hours	**Engineering Technical Hours**	**Total**	**Applies to CAERS Cases?**
Point sources - Annual (required and voluntary)				
4. Quality assurance of submitted data and revision support	2	24	26	3 @ 100 percent, 4 @ 50 percent
5. Extract data from the state data system		4	4	3
6. Convert data into the XML format – facility attributes information		8	8	3
7. Convert data into the XML format – annual emissions information		4	4	3
8. Run EIS quality-assurance checks and resolve critical errors	2	24	26	
9. Submit final file to the EPA		2	2	3, 4
10. Respond to follow-up inquiries from the EPA	2	4	6	3, 4
Subtotal Annual Point Source Reporting via EIS	**6**	**70**	**76**	**Hours Reduction**
Subtotal Annual Point Source Reporting via CAERS case 3	**4**	**46**	**50**	**34 percent**
Subtotal Annual Point Source Reporting via CAERS, case 4	**3**	**16**	**19**	**75 percent**
Point sources - Triennial (required and voluntary), additional hours				
4. Quality assurance of submitted data and revision support	12	120	132	3 @ 100 percent, 4 @ 50 percent
5. Extract data from the state data system	0	4	4	3

Activity	Hours Per Respondent			
	Engineering Managerial Hours	**Engineering Technical Hours**	**Total**	**Applies to CAERS Cases?**
6. Convert data into the XML format – facility attributes information	0	16	16	3
7. Convert data into the XML format – annual emissions information	0	8	8	3
8. Run EIS quality-assurance checks and resolve critical errors	12	120	132	
9. Submit final file to the EPA	1	2	3	3, 4
10. Respond to follow-up inquiries from the EPA	10	20	30	3, 4
Subtotal Triennial Point Source Reporting via EIS – all point sources via EIS	**35**	**290**	**325**	**Hours Reduction**
Subtotal Triennial Point Sources Reporting via CAERS case 3	**23**	**170**	**193**	**41 percent**
Subtotal Triennial Point Source Reporting via CAERS case 4	**16**	**80**	**96**	**70 percent**

To create the hours estimates in Table 3-8, EPA conservatively estimated that the additional hours needed for activities 4, 8, and 10 in triennial years will increase by a factor of 5 compared to the annual facility reporting. This factor is derived by dividing the average triennially reported facility count per agency (158) by the average annually reported facility count per agency (33). Activities 6 and 7 are conservatively estimated to require just twice the effort needed for the annually reported sources, because the activity is largely the same regardless of the number of sources. The EPA estimates that activities 5 and 9 would require the same amount of effort in both triennial and non-triennial years.

To account for the states forecast to use the CAERS for triennial reporting for the 2023 inventory year (reported in 2024), EPA has considered the reduction in effort associated with certain activities. The rightmost column of Table 3-8 indicates EPA's assumptions about whether the activity is relevant for CAERS cases. For CAERS case 3, the state would use the CAERS user interface to collect the data and send it to the state for further processing and submission back to EPA. This approach would have the effect of running the quality assurance checks while the owners/operators were reporting in CAERS. Thus, activity 8 is essentially eliminated because all data collected via CAERS will already be able to pass EIS QA checks. For CAERS case 4, an SLT is using only CAERS, which eliminates activities 5 through 8 and 50 percent of activity 4.

Based on these numbers, EPA estimates SLTs reporting point sources without CAERS would spend 76 hours for annually reported sources and 325 hours for triennial reported sources. SLTs using CAERS case 3 would have a burden reduction of 41percent in triennial years and 34 percent in other years. Finally, SLTs using CAERS case 4 would have a burden reduction of 70 percent in triennial years and 75 percent in other years.

While Table 3-8 includes both hours for reporting both required and voluntary pollutants as a total, EPA has made assumptions about the proportion of activity occuring for CAP and HAP, depending on each of the reporting cases available. During the 2024-2026 period, the HAP reporting is voluntary, and thus the information in Table 3-9 is used when providing cost information broken out by required and voluntary costs. To create Table 3-9, EPA assumed that the total reporting burdens from the summary rows of Table 3-8 were divided as follows. For reporting without CAERS, 30 percent of the effort is associated with HAP reporting. For reporting with CAERS case 3 or 4, 20 percent of the effort is associated with HAP reporting. This lower fraction of burden for HAP reporting via CAERS is based on the integrated nature with which CAERS provides for HAP reporting. This table allows for the presentation of costs for requiring activities under the proposal separate from voluntary activities.

Table 3-9: Split of burden for CAP and HAP reporting.

	Hours Per Respondent		Hours Per Respondent	
	CAPs		HAPs	
Activity	**Engineering Managerial Hours/yr**	**Engineering Technical Hours/Yr**	**Engineering Managerial Hours/Yr**	**Engineering Technical Hours/Yr**
2024 and 2025 emissions reporting without CAERS	4.20	49	1.80	21
2024 and 2025 emissions reporting with CAERS, case 3	3.20	36.80	0.80	9.20
2024 and 2025 emissions reporting with CAERS, case 4	2.40	12.80	0.60	3.20
2026 emissions reporting, 3-year average triennial increment without CAERS	8.17	67.67	3.50	29
2026 emissions reporting, 3-year average, triennial increment with CAERS, case 3	6.13	45.33	1.53	11.33
2026 emissions reporting, 3-year average, triennial increment with CAERS, case 4	4.27	21.33	1.07	5.33

Additional Triennial Reporting for Nonpoint, Mobile, and Event Sources

In addition to the triennial point source reporting, additional activities are required for other source categories. Table 3-10 provides the average hour burden estimates for states only (not local agencies or tribes) to perform the steps that would be required by the AERR or that could be done voluntarily by states on triennial years for nonpoint sources, airports, railyards, locomotives, commercial marine vessels, and onroad and nonroad mobile sources. This table also provides the assumed number of states and territories for which each activity would apply. Where these values do not equal the total number of states or territories, it is because with the many ways to comply with the AERR requirements, states and territories choose different approaches. Similarly, Table 3-10 provides the average hour burden estimates and affected entities for local and tribal agencies.

Table 3-10: State nonpoint, mobile, and other reporting burden hours by activity

Activity	State count	Hours Per Respondent		
		Engineering Managerial Hours	Engineering Technical Hours	Total
Required Activities				
1. Complete Nonpoint Survey	54	2	40	42
2. Report inputs for EPA nonpoint tools or review, comment and/or accept EPA data.	54	62	1,231	1,293
3. Report emissions and documentation for sectors not included in nonpoint tools	18	12	240	252
4. Adjust nonpoint submissions for boundaries of Indian country	4	4	64	68
5. Submit or review, comment, and/or accept EPA airport activity data	54	2	40	42
6. Submit or review, comment, and/or accept EPA rail yard activity data	43	1	16	17
7. Submit CMV and locomotive emissions data and documentation or review, comment, and/or accept EPA emissions estimates.	42	4	80	84
8. For all states but California, report MOVES inputs	53	6	120	126
9. For California, report onroad and nonroad emissions and documentation	1	9	180	189
Average hours per state, required activities	**54**	**80**	**1,592**	**1,672**
Voluntary Activities				
10. Report emissions for sectors *included* in nonpoint tools, including documentation	13	44	880	924
11. Report emissions for aircraft, ground support equipment, and/or rail yards, including documentation	5	12	240	252
12. Comment on prescribed fire and wildfire activity data, submit activity data, or submit emissions	20	8	160	168
Average hours per state, voluntary activities	**20**	**40**	**792**	**832**

Regarding the number of states impacted by each of the activities in Table 3-10, EPA made several assumptions based on past collections of NEI data from states. For all estimates in this table, EPA assumes the managerial hours to be about 5percent of the engineering technical hours, rounded up to the nearest hour.

For activities other than 2 and 3 in Table 3-10, EPA used expert judgement based on EPA's implementation of the AERR for 15 years to specify the engineering technical hours. The number of states affected by these tasks are based on the following. Under the proposed revision, all states (including the District of Columbia and 3 territories) would be required to complete the nonpoint survey (activity 1). Four states overlap Indian country for tribes that reported to the 2017 NEI: Arizona, Colorado, Idaho, and Montana (activity 4). All states have airports and, under the proposed revision, they would all be required to act on these sources (activity 5). Forty-three states have rail yards (activity 6), and 42 states have waterways with commercial marine vessels (activity 7). California is excluded from MOVES inputs reporting leaving just 53 states/territories (activity 8) and that is the only state required to report emissions (activity 9).

For activity 2, EPA considered more detailed tasks associated with these activities to build the hours estimate provided. First, EPA estimates an average per state of 1,231 engineering technical hours for activity 2 based on calculations included in Table 3-11 below. Actual state hours burden depends on implementation choices that the state would have to comply with the AERR revisions. These calculations include state activities for three types of tools: the Wagon Wheel, which is the primary emissions tool for estimating emissions covering the bulk of the nonpoint sectors,[9] (2) the oil and gas emissions tool, and (3) four other stand-alone spreadsheet tools for agricultural fertilizer, livestock, fuel containers, and stage II gasoline.

[9] A useful description of the US EPA Wagon Wheel emissions tool for nonpoint sources can be found at https://www.epa.gov/sites/default/files/2018-09/wagonwheelpresentation_final.pptx.

Table 3-11: Assumptions and calculations for state nonpoint tool submissions (activity 2)

Sub-Task	No. States	Basis	Average Submitted Templates or Sectors per State	Average Hours/ Template or sector	Total for All States Performing Sub-task	Average Hours Across All States
Prepare/submit Wagon Wheel input templates	36	Per template	12	20	8,640	1,168
Review/accept Wagon Wheel input templates	54	Per template	84	12	54,432	
Prepare/submit oil and gas tool inputs	14	Per sector	1	40	560	15
Review/accept oil and gas tool inputs	22	Per sector	1	12	264	
Review/comment/accept other tool inputs	54	Per sector	4	12	2,592	48
Total						**1,231**

As shown in Table 3-11, EPA identified that 36 states submitted Wagon Wheel input templates to EPA for the 2020 NEI and for these submissions, just 6 of the 92 possible templates were submitted by each state on average. Since these counts were made before the 2020 NEI process had been completed, EPA conservatively estimates that a total of 12 templates would be submitted by each state.[10] EPA expects that all 54 states (including District of Columbia and 3 territories) will accept at least some of the 92 EPA-provided templates. To calculate the average number of templates states would review/accept rather than submit (84), EPA averaged the 80 templates for review/accept by the 36 states with the 92 templates for review/accept by the remaining 16 states. The EPA estimates that a state would spend an average of 20 hours to prepare and submit a Wagon Wheel template and 12 hours to review each template. Based on

[10] This assumption can be revised for the final ICR because more information will be available based on final template submissions for the 2020 NEI.

these estimates, states would spend an average of 1,168 hours per state on Wagon Wheel template activities.

In addition, for activity 2, Table 3-11 provides more information for the oil and gas tool activity. The EPA used the 2017 NEI submissions for the oil and gas tool to determine that 6 states submitted tool inputs, 8 states submitted emissions, and 22 states reviewed and accepted EPA oil and gas tool inputs and emissions. Because the proposed AERR revision would require all states to submit tool inputs, EPA summed together the counts of states submitting tool inputs and submitting emissions to assume that 14 states would submit oil and gas tool inputs. The EPA estimates 40 hours to prepare and submit oil and gas tool inputs and 12 hours to review and accept such inputs. Finally, since the total hours as used in Table 3-11 will be multiplied by the total number of states submitting nonpoint sources, EPA divided by this total number to determine that, on average across all states (including those that do not have these sources), oil and gas tool activities account for 16 hours.

To complete the hours estimates for activity 2, EPA also used estimates of burden for the four other nonpoint tools. The EPA expects that based on the proposed AERR revisions, all states would participate in review/comment/acceptance of those data, and this would take each state on average 12 hours per tool. Based on these assumptions, states would spend an additional 48 hours. The sum of the 1,168 hours from the Wagon Wheel, the 15 hours from the oil and gas tool, and the 48 hours for other tools provides the final average hour count for activity 2 of 1,231 hours.

For activity 3 in Table 3-10, states would report emissions for sectors not included in EPA's nonpoint tools. The EPA estimates that about one-third of the states (18) will, on average, report emissions for 2 sectors for which EPA does not have nonpoint emissions tools. Each sector is estimated to take 120 hours to estimate and submit, which is greater than the burden for other sectors because the state cannot benefit from an EPA-provided tool. Based on these assumptions, each state staff person would spend 240 hours to estimate and submit these emissions, and with manager hours included, a total of 252 hours.

In total, Table 3-10 shows that states would spend at minimum 1,503 hours (activities 1, 2, 5, and 8) and at maximum 1,987 (if California were to conduct activities 1-7 and 9) performing required activities for nonpoint and mobile source submissions in triennial years. We have also computed the average hours per state for required activities separately for each labor category. To do this, we multiplied the total number of states expected to perform each activity by the number of hours for that activity. Then, we summed the total number of hours across all activity-state combinations and divided by the total number of states. The number of hours expected for each state would depend on the choices they make for meeting the AERR requirements. The total average number of hours for required activities, including manager hours, is 1,672 hours.

In addition, several voluntary activities could be performed by states. For voluntary activity 10, EPA estimates that, under the proposed approach, just 25percent of states will still submit emissions for nonpoint sources with EPA tools. Not many states are expected to take this voluntary step because it is an additional burden beyond the proposed new AERR requirements. For states that do take this step, EPA estimates 880 hours for states to report an average of 11 sectors taking 80 hours per sector. The average of 11 sectors per state was derived from EPA observations during the 2020 submission period based on 26 states submitting 290 state-sector combinations. Because the AERR required emissions submissions for the 2020 cycle (rather than only tool inputs), this estimated number of sectors per state may be an overestimate for this RIA since states would not be required to report emissions under the AERR revision.

For voluntary activity 11, states have rarely submitted airport emissions data except as part of their point source submissions for the largest airports. Even so, to capture the burden associated with this voluntary activity, EPA assumes that up to 5 states may choose to do so. The EPA estimates that, including manager hours, this labor-intensive step would take 252 hours per state.

Finally, for the last voluntary activity in Table 3-10 (activity 12), EPA determined from the 2020 NEI process that 20 states voluntary reported prescribed fire and/or wildfire data to EPA in the 2017 NEI cycle. The EPA assumes that these efforts take about 160 hours staff time per state. Based on these estimates and including manager hours, states could spend on average an additional 832 hours on voluntary activities associated with nonpoint, mobile, and fire emissions data for the triennial NEI.

In addition to the burden for states/territories, Table 3-12 separately provides estimates for local and tribal agencies that also report to the NEI. The assumptions made in compiling Table 3-12 are generally the same as the assumptions described previously for Table 3-10, with several notable exceptions.

Table 3-12: Local and tribal nonpoint, mobile, and other sources burden hours by activity

Activity	Local/ Tribe count	Hours Per Respondent		
		Engineering Managerial Hours	Engineering Technical Hours	Total
Local and Tribal Reporters				
1. Complete Nonpoint Survey	30	1	20	21
2. Report inputs for EPA nonpoint tools or review, comment and/or accept EPA data.	30	19	370	389
3. Report emissions and documentation for sectors not included in nonpoint tools	10	12	240	252
4. Adjust nonpoint submissions for tribal boundaries	7	2	37	39
5. Submit or review, comment, and/or accept EPA airport activity data	23	2	40	42
6. Submit or review, comment, and/or accept EPA rail yard activity data	20	1	16	17
7. Report MOVES inputs	23	2	40	42
8. For local agencies, coordinate with state agencies to complete stationary nonpoint, nonroad mobile, and onroad mobile sources for all pollutants	23	4	80	84
Average hours per entity, required activities	**30**	**31**	**612**	**643**
Voluntary Activities				
9. Report emissions and documentation for sectors ***included*** in nonpoint tools	9	22	440	462
10. Report emissions for aircraft, ground support equipment, and/or rail yards, including documentation	1	12	240	252
Average hours per entity, voluntary activities	**9**	**23**	**467**	**490**

In Table 3-12, the local/tribal counts are provided rather than state counts. These values reflect the 2017 NEI process which included 23 local agencies and 7 tribes reporting emissions. For the proposed AERR revisions, EPA assumes that all these agencies would complete the Nonpoint Survey (activity 1) and report inputs for EPA nonpoint tools or review, comment and/or accept EPA data (activity 2). Because local agencies and tribes may have fewer sectors to report, the technical engineering hours for completing the nonpoint survey are assumed to be half of the burden as for states. Similarly, because local agencies and tribes may have fewer sectors and do have fewer areas (*i.e.*, counties), EPA has assumed that the technical engineering hours for activity 2 is 30 percent lower than the hours for states. The EPA additionally assumes that only local agencies would need to act on airport activity data (activity 5) and submit MOVES inputs (activity 7) because past tribal submissions did not include this information. Further EPA has found just 20 local agencies and no tribes have rail yards (activity 6).

As a result of these assumptions, EPA estimates that local agencies would need to spend between 597 hours (activities 1, 2, and 5-8) and 849 hours (including activity 3) on required activities. Tribal agencies that are affected by the AERR would need to spend between 451 hours (activities 1, 2 and 4) and 703 hours (including activity 3). The average number of hours for required activities, computed in the same way as for states, is 643 hours.

Table 3-12 also includes voluntary activities for local and tribal agencies. The EPA estimates that 2 local agencies and all 7 tribal agencies that have previously reported nonpoint data would continue to report nonpoint emissions voluntarily (activity 9). This assumption for Indian tribes accounts for the possibility that rather than do activities 1 and 2 and report nonpoint tool inputs, tribes will report emissions using techniques they have used in the past. Since those tribes are also accounted for in burden estimates for activities 1 and 2, but those tribes may not be required to do those activities, these estimates of voluntary burden may represent some double counting of burden with an overestimate on the required burden for activities 1 and 2. Even so, the impact on the overall burden estimates are small. The estimate of 440 engineering technical hours for activity 9 is created by halving the estimate for states. Finally, EPA assumes just 1 local agency may report aircraft emissions and that it would take the same number of hours as for a state to do so. Based on these assumptions, EPA estimates that local agencies and tribes could voluntarily spend between 462 and 714 additional hours (including manager hours) providing emissions data under the proposed AERR. Based on EPA's calculations, EPA also expects that the average hours for voluntary activities by local and tribal agencies would be 490 hours.

Costs of Annual and Triennial Emissions Reporting and Associated Voluntary Activities

In addition to the hours per task as described by the tables above, EPA has computed the annualized average costs for SLTs to submit annual and triennial emissions data to EPA. Table 3-13 provides respondent annualized hours and costs for SLTs that use EIS rather than CAERS to collect point sources (cost reductions from CAERS are provided separately). This table includes operation and maintenance (O&M) costs for the point source data system as introduced previously in Table 3-5. For point sources annual and triennial labor costs, Table 3-13 uses the EIS and CAERS cases 1 and 2 subtotals from Table 3-6. For other data categories (*i.e.*, nonpoint and mobile), the table relies on the *average* hours per entity as provided by Table 3-10 and Table 3-11. To estimate annualized hours and costs for triennial activities, we divide the burden estimate by three to estimate the annualized burden spread over a 3-year period.

Table 3-13 also includes the number of entities for each activity. The EPA has used these values to compute average costs per SLT, which are provided in the table. In Table 3-13, EPA has assumed that 56 out of a total of 84 agencies report point sources using CAERS cases 1 and 2, while 54 state and 30 local and tribal agencies report nonpoint and mobile sources. These assumptions are consistent with previous tables. The additional SLTs reporting via CAERS cases 3 and 4 are reflected in subsequent tables.

As shown in Table 3-13, EPA estimates that the largest cost associated with this collection is the data system operations and maintenance (about $153K). This cost had not been included in previous ICRs for the AERR but has been occurring under the current AERR and is therefore not attributable to the proposed revisions. The EPA estimates additional annualized labor costs for required activities of about $63K for states ($5K + $7K + $51K) and about $38K ($5K + $7K + $20K) for local agencies and tribes.

For the resulting operation and maintenance costs, EPA attempted to verify the costs of SLT data collection systems and posed the question to a CAERS workgroup. Prior to the work done to make these cost estimates, EPA received information from just a single state that their collection system costs ranged from $10K/year to $80K/ year, with an average of $55K per year. Based on this feedback, the estimated costs shown in Table 3-14 of about $153K should be conservative (that is, more likely an overstatement than an understatement). The data system cost estimates can be further revised in the final RIA based on any additional input provided by SLT agencies.

Table 3-13 additionally provides annualized costs for voluntary activities. The annual submission of HAP is reflected using information from Table 3-6 and Table 3-7. The costs range from $15K for local agencies/tribes to $26K for states. Based on the expected number of states and local agencies to participate in voluntary activities in triennial years, EPA estimates an average annualized cost for voluntary activities of $22K for the 29 SLT agencies expected to submit data voluntarily.

Table 3-13: Annualized Burden of NEI submission per Respondent for EIS Approach and CAERS Cases 1 and 2

Information Collection Activity	State, local, or tribal count	Manager Hrs/yr @ $118.94/Hr	Engineer Hrs/yr @ $90.83/Hr	IT Hrs/yr @ $81.02/Hr	Total Hours/ Year	Cost/ Year
Annual Required Activities						
Point source data collection system operations and maintenance (see Table 3-7)	56	160	440	1,160	1,760	$152,975
Submit annually reported point source CAPs with EIS or CAERS cases 1 or 2 (see Table 3-8)	56	4	49		53	$4,950
Point Source Triennial Required Activities						
Submit additional triennial point source CAPs with EIS or CAERS cases 1 or 2 (see Table 3-8)	56	8.17	67.67		76	$7,117
Average Burden per Entity, Required Point Source Activities	**56**	**172**	**557**	**1,160**	**1,889**	**$165,042**
Other Triennial Required Activities						
States: submit triennial nonpoint, onroad mobile, and nonroad mobile sources (see Table 3-10)	54	26.67	530.67		557	$51,370
Local agencies/tribes: nonpoint, onroad mobile, and nonroad mobile sources (see Table 3-12)	30	10.33	204.00		214	$19,757
Average Burden per Entity, Required Other Triennial Activities	**84**	**21**	**414**		**435**	**$40,099**
Triennial Voluntary Activities (hours from other tables divided by 3 to annualize)						
State annual and triennial voluntary point source HAP reporting with EIS or CAERS cases 1 or 2 (see Table 3-7 and Table 3-8)	56	5	50		55	$5,172

Information Collection Activity	State, local, or tribal count	Manager Hrs/yr @ $118.94/Hr	Engineer Hrs/yr @ $90.83/Hr	IT Hrs/yr @ $81.02/Hr	Total Hours/ Year	Cost/ Year
State voluntary triennial data reporting activities (see Table 3-10)	20	13	264		277	$25,564
Local and tribal voluntary triennial data activities (See Table 3-12)	9	8	156		163	$15,050
Average Burden per Entity, Triennial Voluntary Activities	**56**	**11**	**169**		**181**	**$16,720**

Table 3-14 provides the hours and cost burden reductions associated with SLTs using CAERS to submit point sources. These cost reductions are consistent with the difference between the EIS hours and CAERS hours provided in Table 3-13. As shown in Table 3-14, EPA estimates that SLTs implementing CAERS case 3 would save about $48K per year while SLTs choosing CAERS case 4 implementation would save about $147K per year. This significant difference between cases 3 and 4 results from the additional cost savings SLTs would realize under case 4 for eliminating the need to operate and maintain a point source emissions collection data system.

Table 3-14: Annualized Burden Changes per Respondent of NEI Submission for CAERS Cases 3 and 4 Approach*

Information Collection Activity	Manager Hrs/yr @ $118.94/Hr	Engineer Hrs/yr @ $90.83/Hr	IT Hrs/yr @ $81.02/Hr	Total Hours Change/ Year	Cost Change/ Year
CAERS Case 3 Burden Changes					
Point source data collection system operations and maintenance (see Table 3-7)	-43	-184	-244	-471	-$41,571
Annual point source CAP reporting (see Table 3-8)	-1	-12.2		-13.2	-$1,227
Triennial point source CAP reporting (see Table 3-8)	-2.0	-22.3		-24.4	-$2,270
State annual and triennial voluntary point source HAP reporting with CAERS case 3	-3.0	-29.5		-32.4	-$3,029
Subtotal Case 3	**-49**	**-248**	**-244**	**-541**	**-$48,097**

Information Collection Activity	Manager Hrs/yr @ $118.94/Hr	Engineer Hrs/yr @ $90.83/Hr	IT Hrs/yr @ $81.02/Hr	Total Hours Change/ Year	Cost Change/ Year
CAERS Case 4 Burden Changes					
Point source data collection system operations and maintenance (see Table 3-7)	-142	-280	-1,140	-1,562	-$134,682
Annual point source CAP reporting (see Table 3-8)	-1.8	-36.2		-38.0	-$3,502
Triennial point source CAP reporting (see Table 3-8)	-3.9	-46.3		-50.2	-$4,672
State annual and triennial voluntary point source HAP reporting with CAERS case 4	-3.6	-41.5		-45.1	-$4,198
Subtotal Case 4	**-151**	**-404**	**-1,140**	**-1,695**	**-$147,054**

*A minus sign (-) denotes a negative value.

EPA recognizes that many SLTs subcontract their point source emissions collection systems to a third party, while EPA's cost estimation approach assumes the system is operated and maintained using in-house resources. However, EPA assumes that the cost of in-house systems are higher than outsourcing costs because SLTs are unlikely to outsource such a system unless costs would be reduced. Since EPA's estimates for data system operations and maintenance in Table 3-5, Table 3-12, and Table 3-13 assume in-house systems only, we believe that we have not only included outsourcing costs but may have overestimated such costs in this RIA. This approach would also potentially overestimate burden reduction associated with CAERS case 4.

3.5 Number of owners/operators responding

Various provisions of this proposed rule impact certain owners/operators, and to estimate the burden that the proposed requirements could have, EPA has estimated the number of facilities (not owners/operators) associated with activities that would be necessary if the proposed requirements were finalized. Table 3-2 has previously provided the data flows that are covered by this RIA and the associated relationships between states and owners/operators. It is necessary to use facilities to estimate this burden because much better information about facility counts is available than counts of the owners/operators of those facilities. Therefore, to estimate burden on owners/operators during the period in question, it is necessary to estimate the following:

- For reporting emissions data from facilities to SLTs, the number of facilities that would be required to report annual total CAPs to SLTs under these proposed requirements; and
- Reporting emissions data from facilities to EPA:
    - The number of facilities within Indian country that would be required to report CAP and HAP emissions under these proposed requirements (in 2026);
    - The number of facilities that would participate in a one-time collection from owners/operators for data related to High Electricity Demand Day (HEDD) events under these proposed requirements;
    - The number of rail companies from which EPA would continue to collect data about rail yards on a voluntary basis; and
    - The number of source test data reports that owners/operators would submit to EPA under these proposed requirements.

In addition to these estimates, Appendix A of the ICR Supporting Statement includes additional estimated numbers of facilities associated with proposed AERR provisions that would impact burden in 2027 (the first year of full implementation of the proposal) and beyond.

3.5.1 Estimated number of facilities reporting emissions data to SLTs

To determine the number of facilities required to report to SLTs for the NEI, EPA has used the existing reporting information from SLTs to EPA and the estimated number of Major Title V sources from the previous AERR ICR. The design of the AERR point source reporting requirements is that the facilities that are required to report are these Title V Major sources plus any additional non-major sources that meet the 0.5 tpy actual emissions threshold for Pb emissions.

The total number of major sources required to report to states under this proposed action has been adjusted from that used in the previous ICR: 13,420, which includes all major sources available from the EPA Enforcement and Compliance History Online (ECHO) web application, plus an additional 12 sources that have 0.5 tpy of Pb or more and are not otherwise identified as Major Title V sources. Since this number was developed several years ago, and the total number of major sources tends to decrease over time, we believe this number is conservative (that is, an overstatement). Since the ECHO database does not indicate whether the facility is a major source due to its CAP, HAP (or both), EPA has further refined this count to split out the CAP major (including CAP/HAP major) facilities from those that are only HAP major sources, which allows for better quantification of burden for the mandatory requirements versus burden for reporting that SLTs do voluntarily. Any facility that is not a CAP major source but is reported by the state is considered a voluntarily reported source.

To calculate the number of CAP major facilities, EPA performed additional analysis using the 2017 NEI,[11] Integrated Compliance Information System for Air (ICIS-AIR),[12] and a compilation of Residual Risk and Technology Review (RTR) data. Both designations of major sources as well as actual emissions in these databases were used. This approach further identified each NEI facility as best as possible regarding whether it is a CAP major, CAP/HAP major, or HAP major source. More information on this analysis is available in the Technical Support Document for this proposal.[13] This approach identified 10,831 major sources, with 9,991 of these either CAP major or CAP/HAP major. To estimate the total number of CAP major for purposes of this RIA, EPA multiplied the 13,420 total major sources by the ratio of the 9,991 CAP major to the total 10,831 major. This approach resulted in an estimated 12,379 CAP major sources, which is the number used for this analysis for facilities that would be *required* to report CAPs to SLTs under the proposed rule.

The proposed AERR would continue to require fewer facilities to report for the 2024 and 2025 inventory years, using higher PTE emissions reporting thresholds and excluding Pb from

[11] 2017 National Emissions Inventory (NEI) Data, U.S. EPA, https://www.epa.gov/air-emissions-inventories/2017-national-emissions-inventory-nei-data.

[12] Integrated Compliance Information System for Air (ICIS-AIR), U.S. EPA, https://www.epa.gov/enviro/icis-air-search.

[13] Technical Support Document for the Proposed Revisions to the Air Emissions Reporting Rule. U.S. EPA. July 2023.

the thresholds that require states to report point sources in those years. The EPA has chosen to use the same number of interim year facilities as was used in the previous ICR, which is 2,510 facilities. This origin of this number is described in Section 3.4.2. Across the three-year initial period of this RIA (2024-2026), , the average number of facilities per year is (2 x 2,510 + 12,379) / 3 = 5,800.

3.5.2 Estimated number of facilities reporting emissions data to EPA

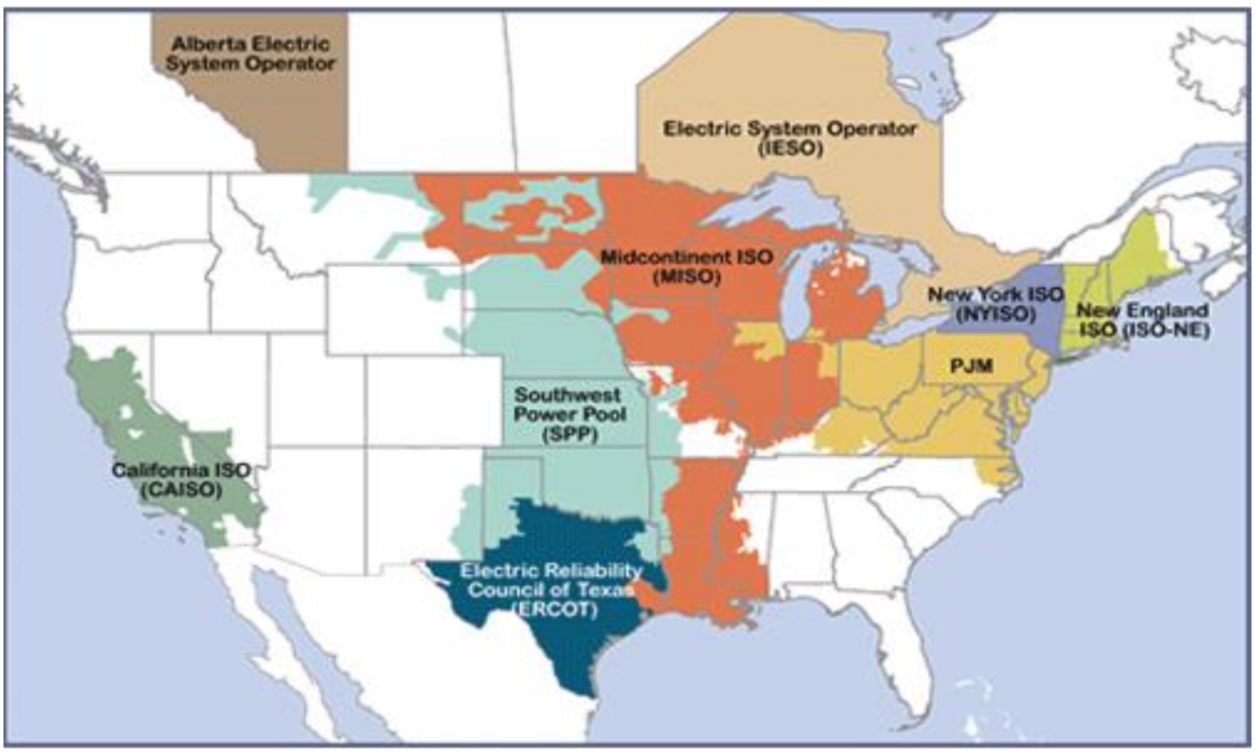
EPA estimated 4 values to quantify the possible reporting directly to EPA for the 3-year period covered by this RIA: (1) the number of facilities within Indian country potentially subject to a revised AERR, (2) the number of facilities that would participate in a one-time collection related to HEDD events, (3) the number of rail companies, and (4) the number of source test reports that EPA would expect to receive under these proposed requirements. The paragraphs below explain each of these separately.

To estimate the number of facilities within Indian country potentially subject to a revised AERR, EPA identified 85 major-source permits for facilities within Indian country from EPA databases, which reflects the complete list of such major sources. To estimate the number of non-major sources that could be potentially subject, EPA multiplied the count of 85 by the estimated number of non-major facilities expected nationally starting in 2027 (115,835) and divided by the total number of major facilities expected nationally (13,420). The calculation 85 x 115,835 / 13,420 yields an estimated 733 facilities, with a resulting total of 819 facilities.

As described in the preamble for the proposed AERR revisions, EPA proposes a "One-time Collection Option" that would require Curtailment Service Providers (CSPs) and other operators or aggregators of small generating units to report certain data to EPA. CSPs are entities that administer electricity demand response programs by working with companies that use and generate electricity to decrease electricity demand by deploying capacity from smaller units like backup generators that can reduce demand from the electricity grid. Reducing demand from the grid can involve deploying temporary electricity generation units that cause emissions and can impact air quality.

To estimate burden for the One-time Collection Option, EPA estimated the number of CSPs and similar entities. To do this, EPA first contacted the Federal Energy Regulatory Commission (FERC) to determine what data are available about the number of CSPs in the U.S. A FERC representative indicated that there is no national database of such entities. The Energy Information Administration does not require CSPs to file with FERC and the last voluntary survey available was in 2012 and, therefore, very outdated. FERC staff indicated that the best available data could be found from online lists for each of the regional transmission organizations (RTOs) and Independent System Operators (ISO). Figure 3-2 below provides a map of the RTO/ISOs.

Figure 3-2: RTO/ISOs and associated states.



Source: FERC, 2022 https://www.ferc.gov/power-sales-and-markets/rtos-and-isos.

While online lists may be incomplete according to FERC, EPA determined that no better data were readily available. In addition, for states that are not a part of an RTO or ISO, EPA reviewed an available list of demand response programs and assessed which of the programs listed could cause small unit generation that would need to be reported under the One-Time-Collection Option. If the same electric company ran a similar program in multiple states, that company was counted for each program rather than as a single company to help make the estimated number more conservative. Table 3-15 provides the list of RTO/ISOs and associated entity counts compiled from the sources shown, which results in an estimated 235 entities.

Table 3-15: List of RTO/ISOs and estimated number of respondents for the One-Time-Collection Option.

RTO/ISO/ State	Entity Count	Source
PJM	97	https://www.pjm.com/markets-and-operations/demand-response/csps
CAISO	31	http://www.caiso.com/documents/listofdemandresponseparticipants.pdf
ERCOT	18	"Demand_Response_Providers.xlsx" linked from https://www.ercot.com/services/programs/load
MISO	31	https://www.potomaceconomics.com/wp-content/uploads/2021/05/2020-MISO-SOM_Report_Body_Compiled_Final_rev-6-1-21.pdf (page 8)
SPP	0	
NYISO	22	https://www.nyiso.com/documents/20142/1398619/Demand-Response-Providers-List.pdf/a9943929-edf6-4b5a-c16f-2c42bdebd18d
ISO-NE	0	https://www.iso-ne.com/markets-operations/markets/demand-resources/about
AL	2	https://www.energy.gov/eere/femp/demand-response-and-time-variable-pricing-programs-southeastern-and-midwestern-states
AR	4	
FL	4	
GA	2	
IN	3	
IA	2	
KY	1	
LA	1	
MI	3	
MS	1	

RTO/ISO/ State	Entity Count	Source
MO	3	
NC	1	
OH	1	
OK	1	
SC	2	
TN	2	
WI	3	
Total	**235**	

Another voluntary aspect of the proposed AERR is participation by rail companies to provide data to EPA regarding rail yards. The EPA has worked with rail companies in past years and is aware of 7 rail companies that could participate. Thus, the number of rail companies used for the purposes of voluntary cost estimates for this RIA is 7.

3.5.3 Estimated number of facilities collecting release point latitude/longitude

On a one-time basis, certain facilities reporting under the proposed AERR would need to collect the latitude/longitude locations for each release point. Collecting such data would allow facilities outside states' implementation planning authority to report such information in 2026 (for the 2025 inventory year) and in 2027 (for the 2026 inventory year). The EPA assumes that the facilities would collect the latitude/longitude data for release points during the analytical period covered by the ICR.

The EPA estimated the number of facilities per year starting with the total number of facilities expected to report, which is included in Appendix A of the ICR based on an estimation approach described in the TSD for this proposal referenced above. The number estimated to need to report starting in 2027 is 129,490 facilities. The EPA adjusted this number downward by 8,309 facilities to account for the number of facilities for which states are already reporting release point latitude/longitudes to EPA via the states. The EPA derived this number by analyzing the 2020 NEI data to identify all facilities for which the reported latitude or longitude was 0.0005 degrees or more from the latitude or longitude (respectively) that represented the whole facility. EPA's estimate of facilities affected annually reflects that facilities must only collect this information once because release points generally do not move. This calculation gives an estimated 40,3158 facilities per year that would need to collect release point latitude/longitude during the 2024-2026 period.

3.6 Burden on owners/operators

3.6.1 Estimating burden of source testing

Finally, EPA has developed an approach to estimate the burden for reporting source test data. To calculate the number of hours for such reporting, EPA has used the formula:

$$\text{Hours burden} = N \times T \times H$$

Where, N is the number of facilities, T is the average number of tests per facility per year, and H is the average number of hours to prepare the electronic form to submit each test. Because major sources are those sources that would typically be required to perform tests, EPA used the same estimated number of major sources for required emissions reporting, or N = 13,420.

To estimate the number of tests per facility, EPA relied on information from selected states about their current source test collection, since source test data for state and federal purposes are collected and managed by states. The EPA contacted 9 states for input on how many source tests have been historically collected by states. Then, EPA compared the number of total source test reported by states to the number of major sources within those states. Since major sources often have testing requirements, it is reasonable to expect that the number of major sources might be a useful predictor of the number of source tests. Table 3-16 shows the raw data collected from the 7 of the 9 states who replied with the number of major sources and source test counts.

Table 3-16: Number of source tests versus number of major sources provided by selected states

State	Number source tests in 2020	Number of major sources
Illinois	450	557
Connecticut	131	56
Massachusetts	53	116
North Carolina	250	327
Washington (Island, Skagit and Whatcom Counties)	120	21
Maine	100	55
Texas	6,938	870

Using these data, EPA evaluated the linear regression and determined that the coefficient of determination (R^2) is 0.71 with a ratio of 5.35 tests per major source per year. The Texas test number seemed to be an outlier because it was much higher than all the other states compared to the number of major sources in Texas. After dropping the Texas data point and re-estimating the linear regression with the intercept going through the origin, this resulted in an R^2 of 0.93 and a ratio of 0.81 tests per major source per year. However, this result had a significant underprediction bias at the low end of the data. Since neither linear regression was ideal, EPA took the midpoint between the 5.35 result and the 0.81 result, which gave 3.08 tests per facility per year. Based on this result, EPA used an estimated 3 tests per facility per year, or T= 3.

Finally, EPA polled several source testing experts within EPA, who have previous source testing experience for industrial contractors, regarding the number of hours it takes to complete a source test report and submit to the Compliance and Emissions Data Reporting Interface (CEDRI). The range of estimates received was from 2 to 6 hours. The EPA selected the midpoint of this range of 4 hours, or H = 4. The product of the number of tests per facility per year (3) and the number of hours per test (4) provides the estimate of 12 hours per facility that is included for activity 5 of Table 3-17 below.

3.6.2 *Burden for Owners/Operators for emissions reports*

The burden for owners/operators to comply with the proposed AERR revision is driven by both mandatory and voluntary collections. For mandatory collections, burden includes owners/operators reporting to SLTs so that SLTs can comply with the proposed AERR requirements for annual and triennial reporting requirements. Additional burden from mandatory activities would include reporting of certain source test data that may be reported to states already, reporting emissions data to EPA for certain facilities in Indian country starting in 2026, and reporting needed if EPA finalizes the AERR proposal's One-Time-Collection option for HEDD related data. For voluntary collections, burden would include activities by rail companies to provide rail yard data.

While different burdens exist for owners/operators reporting to a given state collection approach versus the approach from another state, EPA is unable to reflect those distinctions in this RIA because data are not available about burden from each of those systems. Similarly, we do not try to quantify the difference in facility burden for those states or local agencies who have adopted CAERS as their collection approach.

EPA has estimated burden for owners/operators to reply to report annual emissions inventories in compliance with the proposed AERR, which includes both workflows to states as well as directly to EPA. Table 3-17 provides the estimated number of facilities and number of hours for each facility to respond to the data collection by a state. Although some owners/operators who operate multiple facilities may report those data centrally and have efficiencies that reduce the burden, these estimates assume that all facilities report individually.

For items 1 through 3 in Table 3-17, these hours cover reporting CAPs to states. Any time taken for HAP reporting for the 2023-2025 inventory years (covered by this RIA) result from state requirements and are not driven by AERR requirements. The number of hours included is for reporting emissions data only and includes the time that staff at facilities may need to spend to answer follow-up questions from the state. The time taken by facilities to collect necessary data (*e.g.*, throughput, source testing) to comply with the reporting requirements is assumed to be a part of state permitting, compliance, and other requirements, which go beyond the scope of the RIA. Since most facilities reporting during the period covered by the RIA have been reporting emissions data for many years, the RIA does not include the additional hours associated with collecting facility attributes (such as facility latitude/longitude).[14]

In Table 3-17, the hours shown are the estimated hours needed to accomplish the task within a single year (not the hours averaged over 3 years). To estimate an annual burden per facility even though different activities would occur within each year, Table 3-17 uses the average facility count over 3 years. Within each 3-year period, activity 1 occurs just once and activity 2 occurs twice. Thus, the average facility count shown reflects those frequencies (*i.e.*, [12,379 + 2,510 + 2,510] / 3 = 5,800 facilities).

Table 3-17: Annual burden per facility for owners/operator reporting

Activity	Facility Count in 1 Year	Annual Ave. Facility Count Over 3 Years	Hours per Facility			Facility Cost/ Year
			Manager Hrs/yr @ $160.50/Hr	Engineer Hrs/yr @ $101.18/Hr	Total	
Required activities						
1. Report annual CAPs by facility to states for use in triennial (2023) AERR report	12,379	5,800	1	24	25	$2,589
2. Report annual CAPs by facility to states for use in 2024 and 2025 AERR report	2,510		1	24	25	$2,589
3. Report annual CAPs and HAP to EPA by facility in 2026 (for facilities within Indian country that meet NAICS and reporting thresholds)	819	273	2	40	42	$4,368
4. Report source test data to EPA	13,420	13,420	0	12	12	$1,214

[14] While some changes are proposed for latitude/longitude and other facility attributes, these changes would not go into effect until the 2026 inventory year reported in 2027. These changes are described in of the RIA because they are outside the period covered in our burden analysis.

Activity	Facility Count in 1 Year	Annual Ave. Facility Count Over 3 Years	Hours per Facility			Facility Cost/ Year
			Manager Hrs/yr @ $160.50/Hr	Engineer Hrs/yr @ $101.18/Hr	Total	
Required One-Time Activities						
5. Collect release point latitude-longitude and other parameters	40,315	40,315	2.1	10.5	12.6	$1,399
Sub-total weighted average per year for required activities:	**40,315**	**40,315**	**2.26**	**18.22**	**20.48**	**$2,206**
Required activities for One-Time-Collection option for HEDD						
6. Report facility attributes and daily fuel use or heat input for small generating units	235		10	120	130	$13,746
Voluntary activities for triennial inventory years						
7. Provide rail yard data to the EPA for 2023 (in 2024)	7		2	10	12	$1,333

Since each row of Table 3-17 includes entities in separate categories, the hour estimates listed here are not cumulative in some cases. The respondents for activities 1 and 2 overlap, meaning some respondents do 2 or 3 of these activities. Thus, the total number of respondents for activities 1 and 2 are 12,379, with 2,510 of them expected to also perform activity 2. Thus, the range of hours for such facilities reporting to states is between 25 and 50 hours.

The entities performing activity 4 are expected to be different from those performing activities 1 and 2, since the activity 3 facilities are primarily within Indian country and are, therefore, not reporting data to states. The major sources reporting in activities 1 through 3 overlap with the same respondents performing activity 4. Thus, the 12 hours per respondent for activity 4 would be added to the total hours per respondents reporting to states (activities 1 and 2) and the respondent reporting to EPA (activity 3).

Activity 5 overlaps with the facilities performing activities 1 through 3 and includes additional facilities beyond those reporting activities. In most cases, the facilities included in activity 4 will also overlap with those included in activity 5. However, these activities are only performed one time and are shown in the table as occurring for one-third of the facilities each year, as described in Section 3.5.3.

Activities 6 and 7 are distinct from the other activities, so while some entities such as EGUs may need to perform activity 6 in addition to activities 1 through 3, those CSPs that are not electricity generators are additional entities not otherwise reporting under the proposed rule revisions and would only have the requirement for activity 6. Finally, since the rail companies are distinct from other types of entities reporting emissions, activity 7 is not expected to be cumulative with other activities.

Respondents/affected entities: For the 2024-2026 period, the EPA estimates the proposed rule would impact 85 state/local/tribal respondents and 819 owners/operators of facilities within Indian country and 120,945 (or 40,315 per year) would need to prepare for reporting starting in 2027. Also during this period, the EPA estimates that owners/operators of 13,420 facilities would report source test and performance evaluation data each year. Based on these proposed requirements, states would continue to collect emissions data from owners/operators of an estimated 13,420 facilities (based on state regulations requiring owners/operators to do so). Starting in 2027, Appendix A of the draft ICR identifies owners/operators of an estimated 129,490 facilities from which this proposed rule would require HAP reporting and for about 235 owners/operators, reporting of small generation unit data.

Respondent's obligation to respond: Under this proposed action, the EPA estimates that 85 governmental entities would be required to report to EPA. Authority for such collection is provided by CAA Sections 110, 114, 172, 182, 187, 189, and 301(a). In addition, owners/operators would be required to report data to EPA, and authority for these collections is provided by the same CAA sections. Additionally, 7 railroad companies are expected to voluntarily provide data to the EPA once every three years but would be under no obligation to do so.

Estimated number of respondents: During the 2024-2026 period, the EPA expects 85 governmental entities and owners/operators from an estimated 40,315 facilities (per year) to respond. The description above provides additional detail on the numbers and types of respondents for the initial three-year period and for subsequent periods.

Frequency of response: States would submit emissions data annually, with more data required every third year. Owners/operators of facilities within Indian country would report each year, starting in 2026 (for the 2025 emissions inventory year). The frequency of source test data reports depends on the testing requirements set by the EPA and states. Frequency can range from several times per year to once every several years. However, for the purpose of the RIA, the EPA estimates that owners/operators reporting source test data would report an average of 3 source tests per year. Starting in 2027, the states and owners/operators of facilities affected by this proposed rule would report both the same amount of data every year.

Total estimated cost: Annual capital or operation and maintenance costs include costs for the EPA and states. The EPA's expected annual capital costs for its data systems needed from 2024 through 2026 are $600,000. EPA's additional annual system development, operations, and maintenance costs are expected to be $3,625,000. States' expected annualized capital costs are estimated to be $127,500, and their operation and maintenance costs about $10,156,000.

- The total burden estimates for this proposed action are separated into two categories of respondents: SLTs and owners/operators. In each case, optional activities covered by this RIA are listed separately from mandatory activities.

3.7 State/local/tribal burden

As described in previous sections of this RIA, SLT burden includes burden for both required and voluntary activities associated with one-time tasks), annual, and triennial tasks. This section brings together all these burden estimates and includes capital and associated maintenance costs, which will provide annualized hours and costs for SLTs.

As previously described in this RIA, EPA forecasts that 29 SLTs, on average, will use CAERS during the period of the ICR, and the remaining 56 would use their existing reporting approaches. For the purposes of the ICR, EPA also has forecasted which CAERS cases SLTs may elect to adopt. To date, CAERS cases 3 and 4 have been of most interest to SLTs, presumably because these cases have the lowest burden estimates overall. Although case 4 has greater burden reductions than case 3, many SLTs seem to prefer the autonomy that case 3 provides (the states retain their back-end point source database). Based on these considerations, EPA assumes 10 percent of SLTs will select cases 1 or 2, 30 percent case 3, and 60 percent case 4. Starting with the average of 29 SLTs using CAERS, these percentages map to 3 SLTs using cases 1 or 2, 10 using case 3, and 19 using case 4.

The EPA has estimated annualized capital costs associated with workstations needed for SLTs to submit data required or voluntarily submitted based on the proposed requirements. The EPA assumes that each agency would require five workstations to comply with the reporting provisions of the AERR (one for point sources, one for nonpoint sources, one for onroad and nonroad mobile, one for wildfires and prescribed fires, and one for managerial/coordination activities). The number of workstations has been assumed to be unaffected when states participate in CAERS because although data system maintenance is reduced or eliminated, agency staff still need a workstation to access CAERS to perform their data oversight and submission functions.

The cost for replacing a workstation including new basic software and peripherals (i.e., hardware needed in replacing a workstation (cables, new laptop, etc.), when replacement becomes necessary, is assumed to be approximately $1,500 per agency. For this RIA, it is assumed that 20 percent of the workstations will be replaced each year. Thus, the costs of replacement per agency would be:

5 workstations/agency x 20 percent replacement/year x $1,500/workstation = $1,500/agency/year

Cost of workstation replacement for all agencies equals: $1,500/replacement costs/year ´ x 85 agencies/year = $127,500/year

Workstation maintenance costs are attributed to the normal maintenance of the workstations used to submit the required annual and triennial reports to EPA. This includes annual software costs, service costs, and warranty costs. It is assumed that the total cost of ownership over give years is four times the original purchase price, or $6,000. Thus, the annual maintenance costs are $6,000 minus the $1,500 capital cost divided by 5, or $4,500/5, which is $900/year per workstation. We conservatively assume (that is, more likely to overstate) that one-third of the workstation annual maintenance cost can be attributed to the AERR. The resulting estimated costs associated with AERR are estimated to be approximately $300 per workstation per year, which is $1,500 per agency per year. Total maintenance costs for the respondents are estimated to be:

$1,500/agency/year x 85 agencies = $127,500/year.

As a result, the total capital and maintenance costs per year are $3,000/agency/year.

Table 3-18 provides a summary of all costs that would be incurred by SLTs during the 2024-2026 based on the proposed action. The source of the data for each row is provided here:

- For the **one-time required activities for prescribed burning**, EPA assumes that 50 states and 2 territories would create a data system to collect that information. Local agencies within the state would use their state's system. The per-state hours and costs for developing such a system are from Table 3-5.
- For the **annual required activities for point sources**, the number of SLTs are the same as for the previous row, and the hours and costs are taken from the annual reporting estimates from Table 3-7. For the EIS and CAERS cases 1 and 2 columns, the values are used as-is from the "submit annually reported point sources" row of Table 3-11, whereas for the CAERS case 3 and case 4 columns, the appropriate burden reduction is subtracted from that using the values in Table 3-12.
- For the **triennial required activities for point sources**, the calculations are made in the same way as for the annual required activities for point sources, but the triennial hours and costs are included from Table 3-11.

- For the **triennial required activities for other sources**, the calculations are the same for EIS and all CAERS cases. The number of SLTs is the same as the previous row, but the average hours and costs are taken from the other triennial activities summary row of Table 3-11.
- For the **point data collection system O&M**, the number of SLTs are the same as for the annual and triennial required activities for point sources, and the hours estimates are taken from the "point source data collection system operations and maintenance" row of Table 3-11.
- For the **capital and maintenance costs**, the number of SLTs are the same as for the previous row, and the costs are $3,000 per entity as described earlier in this section.
- For the **one-time voluntary activities**, SLTs would update their reporting rule and apply to EPA only if they will be reporting HAP on behalf of owners/operators. For SLTs using EIS or CAERS cases 1 or 2, EPA assumes that the same fraction of states that currently reports HAP would take these voluntary steps. The EPA estimated this fraction as 88percent using the current number of SLTs reporting HAP (75) divided by the total number of SLTs (85). Then, EPA multiplied this fraction by the 59 SLTs expected to use EIS or CAERS cases 1 or 2 to give 52 SLTs that EPA expects would continue to report directly to EIS (including CAERS cases 1 and 2). The EPA assumes that 4 (25 percent) of 16 SLTs using CAERS case 3 would report HAP on behalf of owners/operators and that 6 (19 percent) of the 32 SLTs using CAERS case 4 would do so. The hours and costs for these values are taken from the optional activities row of Table 3-17.
- Finally, for the **triennial voluntary activities**, the number of SLTs, hours, and costs are from the summary row of Table 3-11 for triennial voluntary activities. These values are not split out for CAERS cases 3 and 4.

Table 3-18: Annual Total SLT Burden and Cost by Activity

Information Collection Activity	EIS, CAERS Cases 1 and 2			CAERS Case 3			CAERS Case 4			Total	
	No. of SLTs	Total Hours/ Year	Total Cost/ Year	No. of SLTs	Total Hours/ Year	Total Cost/ Year	No. of SLTs	Total Hours/ Year	Total Cost/ Year	Hours/ Year	Costs/ Year
One-Time Required, Prescribed Burning[1]	52	116,480	$10,398,053							116,480	$10,398,053
One-Time Required, Point Sources	37	23,877	$2,103,905	16	10,325	$909,797	32	6,101	$569,750	40,304	$3,583,452
Annual Required, Point Sources[2]	56	2,979	$277,199	10	400	$37,230	19	289	$27,512	3,668	$341,942
Triennial Required, Point Sources	56	4,247	$398,563	10	515	$48,469	19	486	$46,457	5,248	$493,489
Triennial Required, Other Sources	84	36,540	$3,368,347							36,540	$3,368,347
Labor Subtotal (Required)		**184,123**	**$16,546,068**		**11,240**	**$995,496**		**6,877**	**$643,720**	202,240	$18,185,283
Point Data Collection System O&M	56	98,560	$8,566,596	10	12,892	$1,114,039	19	3,762	$347,574	115,214	$10,028,208
Capital and Maintenance	56		$168,000	10		$30,000	19		$57,000		$255,000
Total (Required)		**282,683**	**$25,280,663**		**24,132**	**$2,139,535**		**10,639**	**$1,048,293**	**317,454**	**$28,468,492**
One-Time Voluntary: HAPs	49	47,106	$4,230,819	4	3,813	$342,495	6	5,720	$513,742	56,639	$5,087,056
One-Time Voluntary: CAERS	0	0	$0	16	21,589	$1,907,247	32	10,325	$964,193	31,915	$2,871,440

Information Collection Activity	EIS, CAERS Cases 1 and 2			CAERS Case 3			CAERS Case 4			Total	
	No. of SLTs	Total Hours/ Year	Total Cost/ Year	No. of SLTs	Total Hours/ Year	Total Cost/ Year	No. of SLTs	Total Hours/ Year	Total Cost/ Year	Hours/ Year	Costs/ Year
Annual and Triennial Voluntary[1]	56	10,136	$936,320	10	229	$21,425	19	194	$18,492	10,558	$976,237
Total Voluntary		**57,242**	**$5,167,139**		**25,631**	**$2,271,167**		**16,239**	**$1,496,427**	**99,112**	**$8,934,733**

[1] Costs associated with this activity are not broken out by CAERS cases. All costs are included with the group for EIS, CAERS cases 1 and 2.

[2] Excluding point source collection system O&M, included later in this table.

3.8 Owners/operators burden

As described earlier in this RIA chapter, owners/operators burden includes burden for various activities. These include required and voluntary activities related to reporting annual CAPs by facility to states and the additional costs of reporting annual CAPs and HAP to EPA by facility for facilities outside of states' planning authority (e.g., certain Indian Country and Federal waters) that meet NAICS and reporting thresholds and report source test data to EPA. The costs also include the activities for a possible one-time collection of data for small electric generators, which is an option in the proposed AERR revisions.

Table 3-19 provides a summary of all costs that would be incurred by owners/operators during the period of this proposed action. The source of the numbers of facilities was previously provided in Section 3.5. While the number of facilities for any given year would vary, the average number of facilities has been used to properly calculate the annual total burden and costs.

Table 3-19: Annual Total Owner/Operator Burden and Cost by Activity

Information Collection Activity	Number of Facilities	Total Hours/Year	Total Cost/ Year
Required activities			
1. Report annual CAPs by facility to states for use in triennial (2023) AERR report	5,800	144,993	$15,014,213
2. Report annual CAPs by facility to states for use in 2024 and 2025 AERR report			
3. Report annual CAPs and HAP to EPA by facility in 2026 (for facilities within Indian country that meet NAICS and reporting thresholds).	273	11,466	$1,192,498
4. Report source test data to EPA	13,420	161,040	$16,293,705
Required One-Time Activities			
5. Collect release point latitude-longitude and other parameters	40,315	507,973	$56,418,297

Information Collection Activity	Number of Facilities	Total Hours/Year	Total Cost/ Year
Required Activities Sum	**40,315**	**825,473**	**$88,918,714**
Required activities for One-Time-Collection option for HEDD			
6. Report facility attributes and daily fuel use or heat input for small generating units.	235	30,550	$3,230,402
Voluntary activities for triennial inventory years			
7. Provide rail yard data to the EPA for 2023 (in 2024)	7	84	$9,330

The EPA activities associated with the AERR as a whole include:

- Maintaining a database of emissions factors (*e.g.*, WebFIRE) for use by states and the point sources regulated by states;
- Developing guidance and training materials for states for each emissions inventory reporting cycle and maintaining communication through EPA's website and other methods, including providing in-person, webinar-based, and self-guided online training;
- Evaluating the adequacy of existing emissions estimation methods and models, developing method and model revisions, and publishing updated methods and models as appropriate;
- Preparing nonpoint emissions data for review and possible use by states;
- Preparing onroad and nonroad mobile model inputs for review and possible use by states;
- Preparing data for review of participating agencies, including landing and takeoff data at airports and fire activity data and emissions;
- Receiving, reviewing, and storing emission inventory data submitted by each state;
- Processing and updating data submitted by states, including performing quality assurance of data and coordinating efforts to resolve errors and anomalies;
- Fulfilling technical assistance and information requests;
- Developing technical documentation of the resulting emissions inventories created from compiling the collected data;
- Maintaining the EIS and associated electronic reporting approaches;

- Developing, operating, and maintaining the CAERS;
- Developing, operating, and maintaining the emissions estimation tool for small businesses; and
- Maintaining reporting codes to use in emissions inventory databases to identify various aspects of emissions inventories such as emissions unit types, release point types, source category classifications, and geopolitical entities.

The EPA's costs that relate to this data collection can be grouped into 7 areas:

1) Maintaining a database of emissions factors for use by states and the point sources regulated by states;
2) EIS annual operation and maintenance costs;
3) CAERS annual development, operation, and maintenance costs;
4) Preparing and providing guidance, plans, and training to states;
5) Revising emissions estimation methods and models to reflect the best available science, including mobile model updates related solely to support of AERR implementation;
6) Preparing draft nonpoint emissions and mobile-source model inputs;
7) Review, documentation, and publication of data; and
8) Information requests.

As of fiscal year 2022, the annual operation and maintenance costs for EPA's efforts to maintain emissions factors in support of the NEI program is 2 FTE positions. No data system costs for the emissions factor program are included in this RIA because these costs are associated with costs of the CEDRI system and not of the AERR.

As of fiscal year 2022, the EIS annual operation and maintenance costs are estimated to be: 2.7 FTE positions, $300,000 in Working Capital Funds and $625,000 for an information technology contractor.

As of fiscal 2022, the CAERS annual development, operation, and maintenance costs are estimated to be: 3 FTE positions and $1,200,000 for information technology contracting support. The EPA assumes an additional $300,000 in Working Capital Funds for capital costs associated with CAERS.

The projected estimated annual development cost for the emissions estimation tool, identified as part of reducing burden for small businesses, is estimated to be 0.5 FTE and $400,000 for data analysis (of emission factors for facility-wide emissions estimations) and information technology contracting support. No additional capital costs associated with this tool are included because EPA expects to build this tool as a module of CAERS.

The labor costs of preparing and providing guidance, plans and training to states is 1 FTE annually. The labor costs of reviewing and revising emissions estimation methods and models to reflect the best available science for nonpoint emissions methods is 2 FTE annually.

The labor costs of preparing draft nonpoint emissions and mobile-source model inputs include the costs associated with developing updated emissions methods, overseeing contractor resources, quality assuring contractor results, developing documentation, and distributing data and draft documentation to states. The costs of reviewing data submitted by states include costs relating to data review, coordination of efforts to resolve any errors or anomalies, and updating of the data after the quality assurance and reconciliation assurance efforts have been completed. The costs associated with technical documentation include: compiling summaries of emissions, reviewing methods documents and notes, word processing, and section 508 compliance steps. For these activities, EPA requires approximately 1 FTE for point sources, 1.3 FTE for mobile sources, and 3 FTE for nonpoint sources to prepare draft data and review data submitted by states. In addition, the OAQPS requires 1 FTE for information requests. The EPA also incurs a $800,000 annual cost to have environmental engineering contractors assist with developing emissions methods, building data tools, and keeping input data current.

In addition to the primary roles within OAQPS, EPA Regional Offices annually use about 1 FTE in total across the 10 Regions to coordinate state efforts in making their submissions, quality reviews, and outreach and communication on behalf of the data collection program.

Thus, the total number of EPA FTEs is 18.5 (6.2 for the data systems and 12.3 for outreach, data methods, handling, and publication). Since most of the FTEs for this estimate work in Research Triangle Park, North Carolina, we used the pay rates from the General Services Administration (GSA) with locality adjustment for the Raleigh-Durham-Chapel Hill area. We conservatively estimated that the average EPA worker for these purposes is a GS-13, step 7 with a salary rate of $117,866 per year. In addition, a 26 percent increase in this amount was included to adjust for benefits paid by the government. The resulting annual FTE cost assumed is rounded to the nearest thousand dollars to $149,000. Thus, the total resulting EPA annual impact for 18.5 FTE is 37,440 hours and $2,682,000.

Table 3-20 summarizes the government costs (including Federal) along with the respondent costs from the previous sections. For SLT costs, the assumptions about SLT for CAERS usage are included, but voluntary activities including preparations for adopting HAP reporting requirements and reporting HAP voluntarily are not included. For owners/operators, the costs of both the required activities are included, but not the other optional costs or the costs of the voluntary activities for rail companies to provide data. The annual capital costs for EPA sum together the $300,000 each for EIS and CAERS. All costs are in 2021 dollars.

Table 3-20: Total Estimated Respondent and EPA Burden and Cost Summary

Burden Element/Cost	**SLTs**	**Owners/ Operators**	**EPA**	**Total**
Number of Respondents	85	40,315		40,400
Total Hours Per year	202,240	825,473	38,480	1,066,192
Annual Capital Cost	$127,500	$0	$600,000	$727,500
Annual O&M Cost	$10,155,708	$0	$3,025,000	$13,180,708
Total Annual Capital and O&M Costs	$10,283,208	$0	$3,625,000	$13,908,208
Labor Cost Per Year	$18,185,283	$88,918,714	$2,756,500	$109,860,497
Total Cost Per Year	**$28,468,492**	**$88,918,714**	**$6,381,500**	**$123,768,706**

As compared to the previous information collection for the AERR, this AERR proposal covers substantially more activities. These activities are also reflected in this RIA, and while they make the analysis in this RIA more complete, they do not represent additional real-world burden to SLTs or owners/operators when compared to activities they are already doing (i.e., there is no incremental burden). For example, the costs for states to maintain their emissions data collection systems and the costs of facilities reporting CAP emissions (which is currently occurring due to state regulations to implement the AERR) are now counted as AERR costs. These additions are simply covering gaps in previously approved ICRs. Put another way, while the total estimated costs in Table 3-20 appear to be large, these figures do not simply reflect the costs that will be incurred due to the proposed revisions to the AERR. These figures also include costs that SLTs, Owners/Operators, and EPA are already incurring, and would continue to incur in this proposal's baseline, by way of complying with existing laws and regulations (costs associated with complying with the existing AERR without the proposed changes).

In addition to the additional burden coverage described above, the proposed updates to the AERR would affect SLTs in ways that both add burden as well as providing opportunities to reduce burden. For owners/operators, the proposed changes add burden, but that burden can be offset to some degree by the choices that SLTs make regarding CAERS. Additionally, some of the burden impacts would occur starting during the 2024-2026 period covered by this RIA while others would occur after that period. The figure below illustrates the key elements of the revised AERR that impact burden and how SLT choices could impact burden for both SLTs and the owners/operators within each state, local, or tribal boundary.

SLTs must make the following critical choices under the proposed AERR provisions:

1. Whether to report HAP on behalf of owners/operators;
2. Whether and how to incorporate CAERS into SLT data flows for point sources.

For the choice of whether to report HAP on behalf of owners/operators, Table 3-21 provides the various scenarios for impact on the burden included in this RIA. If a SLT chooses to report HAP on behalf of owners/operators then, during the 2024-2026 period of this RIA, the SLT would have additional burden to implement the HAP reporting requirements previously described. During the subsequent period (2027-2029), the SLT would have additional burden to collect and report HAP. If an SLT chooses to not to report HAP on behalf of owners/operators, then there would be no impact on the SLT during the initial three-year period but in the subsequent period, there could be an impact when an SLT chooses to receive HAP data from

EPA. There is no significant burden impact of this choice on facilities, unless for SLTs that continue to require HAP to be reported to the state without integrating with CAERS or accepting the responsibility of reporting HAP on behalf of owners/operators. Table 3-21 reflects this last point in the footnote.

Table 3-21: Impacts on burden depending on SLT choice of whether to report HAP

Impacts to RIA	**SLT Chooses HAP Reporting**	**SLT Chooses No HAP Reporting**
2024-2026		
For SLT Estimated Burden	Voluntary	None
For Owners/Operators Estimated Burden	None	None
2027-2029		
For SLT Estimated Burden	Collect and report HAP data to EPA	Optionally receive HAP data from EPA via CAERS
For Owners/Operators Estimated Burden	Collect and report HAP data to SLT	Report HAP to EPA[1]; One-time increase to learn to use CAERS

[1] In this scenario, if an SLT were to retain their own HAP reporting requirements for reporting to the SLT, then an owner/operator would have duplicative reporting requirements to both SLT and EPA.

For the choice of whether and how to incorporate CAERS into SLT data flows for point sources, Table 3-22 provides the various scenarios for impact on the burden included in this RIA. Previously in this chapter, we have described the various CAERS cases that SLTs can consider. During the 2024 to 2026 period, SLTs retaining their point source collection system or using CAERS cases 1 or 2 do not have impacts reflected in this RIA. If choosing cases 3 or 4, SLTs have a one-time burden increase associated with implementation (Table 3-5) and once implemented a reduction in burden (Table 3-12). The owners/operators' burden is not different due to the SLT choice.

For the 2027-2029 period**,** Table 3-22 shows that SLTs choosing CAERS cases 3 or 4 continue to experience burden reductions during this period and would have additional burden reduction associated with lower implementation for supporting the HAP collection requirements that start in 2027. In all cases in this period, owners/operators would be reporting HAP, but the impact varies depending on the SLT choices for whether and how to incorporate CAERS. For SLTs retaining their existing system or implementing CAERS cases 1 or 2, it will be a lower burden for owners/operators if they also choose to report HAP on behalf of owners/operators (previous table). Not doing so could create a duplicative requirement for owners/operators when SLTs have their own HAP reporting requirements. Finally, the burden for owners/operators for SLTs that choose CAERS cases 3 or 4 would have a one-time increase to learn to use CAERS but then owners/operators would benefit from the consolidated reporting opportunities CAERS will provide.

Table 3-22: Impacts on burden depending on SLT choice of whether and how to incorporate CAERS

Impacts to RIA	SLT System, As-Is or CAERS Cases 1 or 2	CAERS Case 3	CAERS Case 4
2024-2026			
For SLT Estimated Burden	None	CAERS case 3 Subtotal; case 3 reductions	CAERS case 4 Subtotal; case 4 reductions
For Owners/Operators Estimated Burden	None	None[1]	None[1]
2027-2029			
For SLT Estimated Burden	None	CAERS case 3 reductions; Additional HAP burden reductions	CAERS case 3 reductions; Additional HAP burden reductions
For Owners/ Operators Estimated Burden	Depends on SLT Choice for HAP Reporting Approach[2]	One-time increase to learn to use CAERS; Burden reduction for consolidated reporting	

[1] Owner/Operators would need to learn how to report to CAERS, but that part of the burden is not included in the initial three-year period.

[2] If states do not report HAP on behalf of owners/operators but continue to require HAP reporting to the state separately from CAERS, this would cause owners/operators duplicative reporting.

EPA has previously described the choices and assumptions made to forecast the choices of SLTs. Making different assumptions would significantly impact the overall burden comparison. For example, if more states choose case 4, then there would be more burden reduction associated with the proposed rule. If more states choose case 3, then there is more one-time burden for connecting the SLT data system, but also more burden reduction over time based on case 3.

In addition to the voluntary choice for mandatory HAP reporting, and the potential one-time burden increases and long-term burden reductions via CAERS, the following proposed AERR revisions for point sources would increase burden on states during the initial three-year period and through the analytical period of the RIA:

- Preparation for collecting additional data fields for point sources (for states not using CAERS case 4);
- Clarification on the definition of "actual emissions" (because some states may not be including startup and shutdown in their emissions reports);
- Requirement to separately report upset/malfunction emissions when they occur;
- Approach for reporting aircraft data as point sources, which codifies what many SLTs are already doing voluntarily;
- Approach for reporting rail yards, which codifies what many SLTs are already doing voluntarily;
- New approach for collecting and reporting data on portable sources (one of several options);
- Inclusion of portable offshore drilling barges in state waters; and
- Clarification that offshore oil rigs in state waters should be included in point source reports.

For sources other than point sources, the following proposed AERR revisions would increase burden on states during the initial three-year period and through the analytical period of the RIA:

- Preparation for the mandatory collection and reporting of prescribed fire activity data;

- Requirement to provide documentation of emissions for nonpoint sectors that are not covered by EPA tools;
- For states overlapping tribal regions for tribes that report to EPA, the proposed requirement that states exclude activity from those tribal regions when reporting county totals;
- For states who choose to report nonpoint source emissions for sectors with EPA tools, the additional effort to report emissions and documentation in addition to the newly required nonpoint tool inputs;
- For states who choose to report agricultural fire emissions, the additional effort required to report those as events rather than as county totals; and
- For California, the requirement to provide documentation of mobile source emissions calculations using California tools.

In addition to the opportunity to use CAERS case 4, some AERR proposed and retained revisions would provide opportunities to decrease SLT burden during the initial three-year period and through the analytical period of the RIA:

- Provision to collect HAP emissions data direction from owners/operators;
- EPA providing nonpoint emissions calculation tools for SLT use rather than requiring each SLT to develop and submit emissions with their own tools;
- The proposed provision to SLTs to review and accept nonpoint emission tool data provided by EPA;
- EPA providing mobile source model inputs for all state/local agencies except California, and the proposed provision to allow state/local agencies to review and accept mobile source model inputs provided by EPA for onroad and nonroad sources; and
- EPA providing activity data for and the proposed provision to allow state/local agencies to review and accept aircraft, rail yard, commercial marine vessel, wildfire, and agricultural fire activity data and emissions.

Table 3-23 provides a comparison from the summary information of Table 3-20 with the previous ICR for the AERR. Because this RIA includes reporting from owners/operators to both

SLTs (for CAPs) and to EPA (source test data and owners/operators on tribal lands in 2026), the rows for owners/operators have been separated out to better illustrate the differences in results for the SLTs of the AERR changes.

Table 3-23*:* Burden Change

	Currently Approved ICR	Change	Total Requested
SLTs			
Annual Responses	80	+5	85
Annual Respondent Hour Burden	48,702	+153,538	202,240
Annual Respondent Cost Burden	$4,960,908	$23,507,584	$28,468,492
Owners/Operators			
Annual Responses	0	+40,315	40,315
Annual Respondent Hour Burden	0	+825,473	825,473
Annual Respondent Cost Burden	$0	$88,918,714	$88,918,714
EPA			
All EPA Costs	$5,589,000	$792,500	$6,381,500

These changes show an average annual increase in the number of responses from 80 to 85 for SLTs and an associated hour increase of about 154,000 and cost increase of about $28.5 million. The reasons for the large increase in hours and costs have been described previously. The increase in the number of SLT respondents reflects the requirement that applies to the 50 states, the District of Columbia, and 3 territories (Puerto Rico, Virgin Islands, and Guam).

Additionally, increased labor rates are included in this RIA as compared with the existing approved ICR. As mentioned in section 3.2 of this RIA, labor rates have been updated to the May 2021 labor rates (that are the most recent) from the U.S. Department of Labor, Bureau of Labor Statistics for managers and technical staff (downloaded on 3/21/2022).

As previously described, the costs associated with the proposed AERR include, for the first time for the AERR, costs to owners/operators for reporting to states, the cost of state data systems operations, and includes source test data reporting to EPA. As such, certain apparent "increases" are solely due to the addition of those workflows as attributable to the AERR.

EPA costs included in this RIA reflect an update to assumed salary of EPA FTEs to reflect the latest General Services Administration pay table. The additional cost of developing the emissions estimation tool to reduce burden on small businesses has also been added to EPA costs. An additional $300,000 has been included for CAERS capital costs in these estimates, to reflect the planned system migration as part of overall data system streamlining by EPA, which will incur a higher cost during the initial three-year period for an eventual cost savings. Other costs have been recently updated in the AERR ICR approved in 2022, and those have been used in this RIA.

This RIA quantifies costs of collecting data for the NEI, which is published on an annual basis. After states submit the data, EPA quality assures the point source data, resolves quality issues with the data submitters, and publishes the point sources in the EIS within 6-9 months. The remainder of the NEI data are published in the EIS and on EPA's website within 15 months. The NEI is used in numerous EPA activities that are described in the latest NEI Technical Support Document available on EPA's NEI website.[15]

This RIA also quantifies costs of collecting certain source test data using CEDRI, which is a data system that transfers the data it collects into the WebFIRE system for publication. The data collected undergo a review period by SLTs that lasts 30 days after receipt for Periodic and Notification reports and 60 days after receipt for Performance Test / Evaluation reports. At that time, the data is transferred to the WebFIRE database for public distribution on the WebFIRE website.[16] More information is available on this process through the Central Data Exchange Guide for Reviewing Reports in CEDRI, Version 1.0 (April, 2020).[17]

3.9 Costs of the Proposed Action for 2027 and Beyond

Some of the provisions of the proposed AERR revision, if finalized, would take effect starting in 2027 (for the 2026 emissions inventory year), and some one-time provisions in the

[15] https://www.epa.gov/air-emissions-inventories/national-emissions-inventory-nei.
[16] https://cfpub.epa.gov/webfire/.
[17] https://dev.epacdx.net/FAQ/ViewDocument?documentNumber=Phx8CgcKgTspercent3D.

2024-2026 period would not apply. This section provides information to help explain the changes to burden that would start in 2027 and continue indefinitely.

Table 3-24 provides the proposed AERR provisions that would take effect for SLTs starting in 2027 and their associated annual changes in hour and cost burden. The EPA includes the following assumptions in these estimates:

- CAERS further expands for the 2026 reporting year that occurs in 2027 with 13 SLTs using their own data system or CAERS cases 1 or 2, 24 using case 3, and 48 using case 4.
- For activities 1a through 1c, manage and staff hours increase by 10 percent over the hours for the 2023-2025 period because of the additional HAP pollutants.
- For activity 1a, engineer and IT staff hours increase an additional 20 percent because of necessary updates to the SLT point collection system.
- For activity 1b, engineer and IT staff hours increase an additional 10 percent because of necessary updates to the SLT point collection system. This reduction would be associated with lower system burden because CAERS would serve as the user interface.
- For activity 2, this minor update would impact the staff engineer for supporting facilities to report additional data under the new requirement
- For activity 3, this update would include 5percent managerial hours and the following breakdown of activities for staff
    - Prescribed fires collection system O&M: 40 hours engineering and 520 hours IT
    - User support for prescribed fire activity reporting: 120 hours engineering and 20 hours IT
    - QA of submitted data and revision support: 80 hours engineering
    - Converting data into required format: 8 hours engineering and 2 hours IT
    - Submitting final data to EPA via CDX: 4 hours engineering
    - Responding to follow-up questions from EPA: 20 hours engineering
- For activities 4a through 4c, the work to implement the HEDD collection would have occurred during the 2023-2026 period as part of the updates to state regulations and updating the SLT data system (except for CAERS case 4). Thus, these hours represent the

minor additional burden associated with collecting data from a small number of additional units in each SLT.

- Activity 4b is expected to take more hours because of the additional time needed to register more facilities in the SLT data system. This is a one-time impact that would occur during 2027. Since these estimates are based on an initial three-year period and subsequent periods, the additional hours over Activity 4a are divided by three. The EPA estimates that the additional hours (above activity 1a) that would occur in 2027 would be 12 management hours and 80 engineering hours.
- Activity 5 includes additional engineering hours (7) and IT hours (16) to update the SLT data system with the additional per- and polyfluoroalkyl substances (PFAS) pollutants that would be required. This potential impact would not affect SLTs choosing CAERS case 4.

Table 3-24: Annual Burden and Additions per SLT Starting in 2027 for Proposed AERR Changes

	No. of SLTs	Manager Hrs/yr @ $118.94/Hr	Engineer Hrs/yr @ $90.83/Hr	IT Hrs/yr @ $81.02/Hr	Hours/ year per SLT	Cost/ year per SLT
Activities from with changes to burden calculation						
1a. Point source annual emissions system O&M, collection, and reporting for required CAP and HAP by SLTs, with SLT system or CAERS cases 1 or 2	13	189	724	1,508	2,421	$210,446
1b. Point source annual emissions system O&M, collection, and reporting for required CAP and HAP by SLTs, with CAERS case 3	24	136	371	1,099	1,606	$138,852

	No. of SLTs	Manager Hrs/yr @ $118.94/Hr	Engineer Hrs/yr @ $90.83/Hr	IT Hrs/yr @ $81.02/Hr	Hours/ year per SLT	Cost/ year per SLT
1c. Point source annual emissions collection and reporting for required CAP and HAP by SLTs, with CAERS case 4	48	23	168	22	213	$19,772
Additional proposed activities						
2. Provision to require inclusion of certain facility-dedicated mobile sources as part of facility emissions	85	0	40	0	40	$3,633
3. Provision for states to report activity data every year for certain prescribed burns	52	41	272	542	855	$73,493
4a. HEDD Preferred approach: States to report fuel data or heat input for for small generating units	24	1	8	0	9	$846
4b. HEDD Alternative D2: expand preferred approach to include all units deployed by CSPs	24	5	35	0	40	$3,743
4c. HEDD Alternative D3: restrict preferred approach to ozone SIP states	17	1	8	0	9	$846
5. Option: Include per- and polyfluoroalkyl substances (PFAS) in required pollutants	85	0	8	16	24	$2,023
Maximum Burden Changes per SLT (activities 1a, 2, 3, 4b, and 5)	**13**	**235**	**1,079**	**2,066**	**3,380**	**$293,338**

	No. of SLTs	Manager Hrs/yr @ $118.94/Hr	Engineer Hrs/yr @ $90.83/Hr	IT Hrs/yr @ $81.02/Hr	Hours/ year per SLT	Cost/ year per SLT
Maximum Burden Changes for CAERS case 3 (activities 1b, 2, 3, 4b, and 5)	**24**	**182**	**725**	**1,657**	**2,564**	**$221,744**
Maximum Burden Changes for CAERS case 4 (activities 1c, 2, 3, 4b, and 5)	**48**	**69**	**523**	**580**	**1,172**	**$102,664**

In Table 3-24, the hours and cost estimates for activities 1a through 1c replace the analogous estimates in Table 3-18, while the remainder of the rows are estimated additional burden to the burden estimates form 2024-2026. The maximum burden changes totals include activities 1a, 2, 3, 4b, and 5. The SLTs using CAERS case 3 would have a lower burden that includes activity 1b rather than 1a. The burden is further reduced for SLTs using CAERS case 4 by including activity 1c rather than 1a. The reasons for these lower burdens are both the reductions as described in the main body above as well as the lower increase in burden associated with mandatory HAP reporting.

Table 3-25 provides the additional proposed AERR provisions that would take effect for owners/operators starting in 2027 and their associated annual additions of hour and cost burden. These burden increases are in addition to the reporting burden included in the main body of this document. The activity numbers in the table match the numbers used in Table 3-25 and, therefore, are not sequential. The EPA includes the following assumptions in these estimates:

- The total number of facilities reporting is the number of major facilities plus the number of non-major facilities estimated to report as described in a separate document prepared for the Small Business Advocacy (SBAR) Panel. This approach is described in an attachment to the SBAR Panel convening materials “Attachment 4 – Draft AERR small business estimation method.docx”. After the panel as part of continued development of the AERR proposal, that method was applied to the final list of NAICS and final emissions thresholds proposed by this rule to derive the final estimated number of non-major facilities and small businesses using the CAA small business size definition.

- The estimated number of states that will allow facilities to report HAP directly to EPA is 27. Of the remaining SLTs, 26 would continue to use the SLT system or adopt CAERS cases 1 or 2. The remaining 32 states would report HAP to EPA using CAERS cases 3 or 4.
- The number of facilities reporting under activity 1a is the total number of facilities times the number of SLTs collecting using the SLT data system or CAERS cases 1 or 2 (13) divided by the total number of SLTs reporting (85).
- The number of facilities reporting under activity 1b/c is the total number of facilities times the number of SLTs with EPA collecting or that are collecting using CAERS cases 3 or 4 divided by the total number of SLTs reporting (85).
- The number of facilities reporting PFAS is based on an Environmental Working Group report "PFAS Nation: Toxic Discharges Suspected From Almost 500 Industrial Facilities across U.S." from June 11, 2019, and revised July 2021. The report indicates that more than 41,000 facilities may use or emit PFAS. The EPA chose to include a cost estimate based on about 10 percent or 4,000 facilities being subject to reporting PFAS. Given the lack of information about air emissions of PFAS, this number is highly uncertain, but since the additional hours to report PFAS are low, the uncertainty does not have a large impact on the overall burden estimates.

The maximum burden totals in Table 3-25 include activities 1a, 4b, and 5. The owners/operators using CAERS case 3 or case 4 would have a lower burden through using the CAERS user interface. The burden reductions included here for owners/operators using CAERS result from the inclusion of quality controls during emissions reporting, which avoid submission errors and repeated report submittals. The EPA expects additional burden reduction from CAERS because it streamlines reporting across several other data systems, but those additional burden reductions are not quantified here.

Table 3-25: Annual Burden per Facility Starting in 2027 for Proposed AERR Changes

	No. Facilities	Manager Hrs/yr @ $160.50/Hr	Engineer Hrs/yr @ $101.18/Hr	Hours/ year per Facility	Cost/year per Facility
1a. Collection by SLT for facilities required to report for HAP for SLT reporting on behalf of facilities because of new AERR	16,859	1	24	25	$2,589
1b/c. Collection of required annual HAP by EPA or SLT with CAERS cases 3 or 4 from owners/operators due to new AERR	93,372	1	16	17	$1,779
4a. HEDD Preferred approach: States to report fuel data or heat input for small generating units	235	5	60	65	$6,873
4b. HEDD Alternative D2: expand preferred approach to include all units deployed by CSPs	235	10	120	130	$13,746
4c. HEDD Alternative D3: restrict preferred approach to ozone SIP states	226	5	60	65	$6,873
5. Include PFAS in required pollutants	4,000	0	2	2	$202
6. CAERS training (one-time costs hrs /3)	93,372	0	3	3	$304
7. Contractor support for small businesses with < 20 employees or <$3M receipts	19,024	-	-	-	$8,094
Maximum Burden per Facility (activities 1a + 5)	**16,859**	**1**	**26**	**27**	**$2,791**
Maximum Burden per Facility CAERS cases 3 and 4 (activities 1b/c + 5 + 6)	**93,372**	**1**	**21**	**22**	**$2,285**
Maximum Burden per Facility for CSPs (activity 4b)	**235**	**10**	**120**	**130**	**$13,746**
Weighted average across facilities (across 3 maxima and activity 7)	**129,490**	**1**	**19**	**20**	**$3,225**

[1] This number assumes that states would collect the data from CSPs rather than from individual facilities.

To better understand the expected impact of these changes in comparison to this RIA for the 2024-2026 period, Table 3-26 provides the burden associated with labor hours for SLTs, owners/operators and the total for both 2024-2026 and for 2027. The table reflects the changes list in Table 3-26, as well as the removal of the one-time costs occurring during 2024-2026. We calculated the SLT burden (hours and costs) in 2027 by:

- Starting with the total burden from Table 3-19;
- Subtracting the burden for "One-Time Required, Prescribed Burning," "One-Time Required, Point Sources," "Annual Required, Point Sources," and "Triennial Required, Point Sources;" and
- Adding the burden from the three Maximum Burden Changes by SLT from the Bottom of Table 3-24, using the appropriate number of SLTs for each of the rows to multiply the per-SLT burden for each.

The primary reasons for the changes to the SLT costs are the increases in burden shown in Table 3-24 and decreases in burden for one-time activities for all states to update their regulations and to implement a prescribed burning data collection system. An additional decrease in burden is reflected because of the additional states expected to use CAERS cases 3 and 4 in 2027 (24 and 48, respectively as compared to 10 and 19 during the 2024-2026 period). Further estimates of CAERS adoption beyond 2027 have not been included. The costs of voluntary activities to update HAP regulations are not included in the final summary tables in the ICR Supporting Statement and thus the removal of those costs is not captured in this RIA as part of the changes in burden for 2027.

The primary reasons for the changes to the owner/operator costs are that there are many more facilities required to report starting in 2027 (about 129,500) plus a possible additional 235 CSPs. These numbers are in contrast to the CAP major sources (and few additional Pb emitters) required in 2024-2026 (12,379). Since the AERR for the 2024-2026 period does not require the collection of HAP data, the collection of HAP data by SLTs from facilities is not part of the analysis for that period. With the requirement of collecting HAP emissions starting in 2027, all burden of owners/operators reporting to both states and directly to EPA becomes a part of the burden estimate. Although the increase in burden appears large, states are voluntarily collecting

CAP and, in some cases, HAP from nearly 59,000 facilities (based on 2017 NEI data) in addition to the 12,379 required facilities. Thus, the practical impact on owners/operators is lower than what is captured here because the voluntary SLT collections include far more facilities than the required minimum. In other words, while this proposed action would require reporting for about 116,000 additional facilities beyond the current AERR, 59,000 of those facilities are already reporting to states.

Table 3-26: Total Estimated Respondent and EPA Burden and Cost Summary Differences for 2027 Compared to the 2024-2026 Average*

	SLTs		**Owners/ Operators**		**Total**	
Burden Element	**2024-2026**	**2027**	**2024-2026**	**2027**	**2024-2026**	**2027**
Number of Respondents	85	85	40,315	129,490	40,400	129,575
Total Labor Hours Per year	298,710	294,732	825,473	2,857,426	1,124,183	3,152,158
Cost Per Year	**$28.5M**	**$27.7M**	**$88.9M**	**$450.1M**	**$117.4M**	**$477.9M**

* 2021 dollars. M= $1 million.

3.10 Costs in Terms of Present Value and Equivalent Annualized Value

In addition to the burden estimate costs in the form shown in Table 3-26, EPA also presents these costs in terms of present value (PV) and equivalent annualized value (EAV). The PV is a current estimate of the costs spread over a period of time; the EAV is a value of these costs per year whose sum over that period of time equals the PV. We assume a 10 year time period for estimating costs in this way, beginning in 2024, which is the first year costs are incurred to comply with the proposal if finalized. Thus, the final year of the time period is 2033. Given that the vast majority of the costs incurred by affected sources are for labor, an undiscounted value, we take those labor costs and include them in our analysis. We include all affected sources and respondents, both governmental (states/local/tribal, and EPA) and industrial (owner/operator) sources, (that is, the yearly total cost in Table 3-26) in this analysis. We discount these costs at 3 and 7 percent in according with guidance in the current OMB Circular A-4.[18] All costs are in 2021 dollars and discounted to 2023.

We estimate that the PV of these costs is $3.06 billion at a 3 percent discount rate and $2.41. billion at a 7 percent discount rate. The EAV of these costs is $358 million at a 3 percent discount rate and $343 million at a 7 percent discount rate. These total results are shown at the bottom of Table 3-27.

Table 3-27: Discounted Total Annual Costs, for the Proposed AERR (million 2021$, discounted to 2023)

Year	3 percent	7 percent
2024	$114.0	$109.7
2025	$110.6	$102.5
2026	$107.4	$95.8
2027	$424.6	$364.6
2028	$412.2	$340.7
2029	$400.2	$318.4
2030	$388.5	$297.6
2031	$377.2	$278.1
2032	$366.2	$259.9
2033	$355.6	$242.9
PV	**$3,056.7**	**$2,410.3**
EAV	**$358.3**	**$343.2**

[18] U.S. Office of Management and Budget. Circular A-4, "Regulatory Analysis." September 17, 2003. Available on the Internet at https://www.whitehouse.gov/wp-content/uploads/legacy_drupal_files/omb/circulars/A4/a-4.pdf.

Note: Discounted to 2023. Totals may not sum due to independent rounding. Numbers rounded to two significant digits unless otherwise noted. The EAV is an annualized cost for it is an estimate calculated from annual costs incurred across the 10 year RIA analytical timeframe.

3.11 Employment Impacts

Regarding employment impacts, environmental regulation including regulation to effect greater collection of emissions data as included in this proposal, may affect groups of workers differently, as changes in compliance activities such as those in this proposed action cause labor and other resources to shift. Standard benefit-cost analyses have not typically included a separate analysis of regulation-induced employment impacts, especially those involving employment by state, local, and tribal government entities.[19] In this section we discuss qualitatively the potential employment impacts of this proposed rule.

An environmental regulation affecting the many sectors impacted by this proposed rule as listed in Chapter 2 is expected to have a variety of transitional employment impacts, which may include reduced employment at facilities, as well as increased employment for the manufacture, installation, and operation of equipment related to emissions data collection and services related to emissions data collection.[20] Labor costs and the amount of labor needed for the installation and operation of monitoring equipment and recordkeeping procedures can be found in the ICR supporting statement and related appendices and reports for this proposed rule discussed earlier in this RIA chapter. For this proposed rule, the EPA expects some potential for small changes in the amount of labor needed in different parts of the affected sectors nationwide, though the absolute labor hour estimate in absolute are not trivial, as shown by the labor estimates presented earlier in this RIA chapter.[21] These employment impacts, both negative and positive, may be likely to be relatively small or *de minimus*, though the discussion of impacts on small entities

[19] Labor costs associated with regulatory compliance activities are included as part of total costs in EPA's standard benefit-cost analyses. See Section 3.1 of this RIA for a discussion of operating, supervisory, and maintenance labor hours for labor costs associated with operation and maintenance of equipment, and labor expenses required for monitoring, reporting, and record keeping as estimated in the ICR for this proposal.

[20] Schmalansee, R. and R. Stavins (2011). "A Guide to Economic and Policy Analysis for the Transport Rule." White Paper. Boston, MA. Exelon Corp.

[21] The employment analysis in this RIA is part of EPA's ongoing effort to "conduct continuing evaluations of potential loss or shifts of employment which may result from the administration or enforcement of [the Act]" pursuant to CAA section 321(a).

that is part of the IRFA presented in Chapter 4 of this RIA should lead to care in the examination of such impacts.

3.12 Social Welfare Considerations

As stated in E.O. 12866, when a regulatory action is deemed "significant," an estimate of the regulation's social cost is compared to its social benefits to determine whether the benefits justify the costs. The value of a regulatory action is traditionally measured by the change in economic welfare that it generates. The regulation's welfare impacts, or the social costs required to achieve environmental improvements, will extend to consumers and producers as economic agents. Consumers experience welfare impacts due to potential changes in market prices and consumption levels associated with the proposed rule. Producers experience welfare impacts resulting from changes in profits corresponding with the changes in production costs, output levels, and market prices. These benefits are discussed in Chapter 5. A qualitative discussion and comparison of the net benefits (benefits less costs) of this proposed action is also presented in Chapter 5.

APPENDIX 3-A: COSTS OF EMISSIONS DATA ACTIVITIES FOR STATE IMPLEMENTATION PLANS

In addition to the burden associated with the proposed AERR revisions, this RIA quantifies the burden of activities that states/locals must do to create emissions inventory data needed to comply with certain Clean Air Act requirements for SIPs. While the activities by SLTs to *submit* such information to EPA were previously examined in the accompanying ICRs associated with the various SIP requirements rules,[22] the activities to develop the emissions data for SIPs have not been previously quantified. This analysis quantifies emissions data preparation costs for those expected SIP emissions inventory preparation efforts over the period covered by this RIA.

The analysis provided in this Appendix is divided into four sections. The first section provides the approach for estimating the number of SLT respondents, while the second section provides cost estimates for these. The third section provides estimated costs of additional reporting by owners/operators to states to provide additional emissions inventory data needed for SIPs that is in addition to the annual data collected by states for reporting under the AERR. Finally, the last section includes the total burden associated with these SIP-related emissions inventory activities for both SLTs and owners/operators.

3-A.1 Number of SLT respondents

The number of respondents overall includes all 50 states, but depending on the activity, some states may have more than one SIP action. The EPA estimates that during the 2024-2026 period, states will prepare 58 periodic ozone season emissions inventories, 28 projected attainment year inventories, 74 base year inventories for the nonattainment area (total for both ozone or $PM_{2.5}$ SIPs), 42 emissions inventories to support modeled attainment demonstrations, and 50 emissions inventories for regional haze modeling for the third planning period.

Table 3-A-1 provides EPA's estimates of the SIP actions expected occur during the 2024-2026 period. These activities to estimate an annual cost of SIP emissions data preparation activities that would occur through the RIA analysis period (i.e., through 2033). This approach is

[22] Implementation of the 2008 National Ambient Air Quality Standards for Ozone State Implementation Plan Requirements, OMB control number 2060-0695; PM2.5 National Ambient Air Quality Standards (NAAQS) State Implementation Plan (SIP) Requirements Rule, OMB control number 2060-0611.

used because predicting SIP-related emissions activities occurring after 2026 is highly uncertain. The leftmost column of the table shows the program name followed in the subsequent columns by the various emissions-related activities (and any relevant assumptions) and the number of areas affected. The column labeled “Count by” indicates the basis for estimating the “Number affected” on that row. These “Count by” labels are for the nonattainment area (“Area”), the combinations of nonattainment area and SLTs (“Area-SLT”), or the SLT.[23] The type of “Count by” used affects how EPA computed the hours for the burden estimates. The “Emissions activities 2024-2026” column indicates whether during the 2024-2026 period covered by this analysis, EPA expects emissions activities to be performed by SLTs.

Table 3-A-1: Evaluation of Potential SIP Activities

Program	Activity	Number affected	Count by	Emissions activities 2024-2026
Ozone NAAQS (all active)	Periodic Emissions Inventory	58	Area	Yes
	Projected 10-year inventory for maintenance plan	14	Area-SLT	Yes
	Base year inventory for the NAA (for inventory SIP or maintenance plan)	52	Area-SLT	Yes
	Emissions for modeled attainment demonstration (base year and projected attainment year)	38	Area-SLT	Yes
Ozone NAAQS (Transport)	No specific requirements, though upwind linked states may need to use emissions data.	23	SLT	Yes

[23] An area-SLT combination reflects that a single nonattainment or maintenance area may overlap with 3 states, for example, the New York-New Jersey-Long Island nonattainment area overlaps with New York, New Jersey, and Connecticut. Since each state would separately need to do emissions projections, EPA has counted these separately for purposes of estimating burden.

Program	Activity	Number affected	Count by	Emissions activities 2024-2026
$PM_{2.5}$ (all active)	Projected 10-year inventory for maintenance plan or projected attainment year inventory	14	Area-SLT	Yes
	Base year inventory for the NAA (for inventory SIP or maintenance plan)	22	Area-SLT	Yes
	Emissions for modeled attainment demonstration (base year and projected attainment year)	4	Area-SLT	Yes
	Designations, 5-factor analysis including emissions evaluations	30	Area-SLT	No
	Infrastructure SIPs/Transport	51	SLT	No
NOx SIP call	Any activity	21	SLT	No
Regional Haze	Statewide emissions inventory needed for Regional Haze progress reports due in 2025.	51	SLT	No
	Statewide emissions inventory for the third SIP planning period (due in 2028). Assume modeling inventory and emissions modeling activities needed.	51	SLT	Yes
CO	Base year inventory for the NAA (for maintenance plan)	82	Area	No
NO_2	Base year inventory for the NAA (for maintenance plan)	1	Area	No
SO_2	Emissions for AERMOD modeling	35	Area	No
Pb	Emissions for AERMOD modeling	1	Area	No

For the activities related to the ozone standards shown in this table, EPA reviewed possible actions that could occur during the 2024-2026 period based on the classification of nonattainment areas (Marginal, Moderate, Serious, Severe, or Extreme) and the latest information about ambient conditions in those areas. For the periodic emissions inventory, EPA assumed all 58 existing nonattainment areas would need to do a periodic inventory. These inventories are not identical to those submitted to EPA for the AERR's triennial reporting requirement previously described, because the periodic inventories have several differences. Thus, EPA counts here only the additional effort (beyond what would be done for the AERR) needed for states with existing nonattainment areas to create the nonattainment area inventories.

For the ozone NAAQS projected 10-year inventory for maintenance plans, EPA has assumed the following numbers of state-area (or "area-SLT") combinations to arrive at the count of 14 shown in the table: 2008 ozone standard (3), 2015 ozone standard (11). A state-area combination reflects that a single nonattainment or maintenance area may overlap with 3 states, for example, the New York-New Jersey-Long Island nonattainment area overlaps with New York, New Jersey, and Connecticut. This is consistent with EPA's assumption that all 58 existing ozone NAAQS nonattainment areas would need to do a periodic inventory. Since each state would separately need to do emissions projections, EPA has counted these separately for purposes of estimating burden.

In addition, for ozone, EPA arrived at a count of 52 new or updated base year inventories for the nonattainment areas, as follows. Each of the following occurrences would trigger a state to need to prepare such an inventory: 2008 ozone standard areas reclassified from Serious to Severe (7), 2015 standard areas reclassified from Marginal to Moderate (5) and from Marginal or Moderate to Serious (31), and areas needing maintenance plans (9). Lastly for the ozone standard, a reclassification from Moderate to Severe would cause an area/state to create a new modeled attainment demonstration, so EPA has counted a possible 38 such demonstrations requiring modeling inventories during the period of this RIA.

For ozone transport SIPs, there are not necessarily any specific *submissions* from states that EPA believes would occur during the 2024-2026 period. However, states may need to develop emissions inventories (or revise EPA inventories) during the period so that they could meet requirements for submissions after 2026. Thus, EPA assumes 23 upwind states based on its latest proposed rulemaking would have emissions inventory activities during the period of the RIA.

For the $PM_{2.5}$ standards, EPA reviewed possible actions that could occur during the period for this ICR based on the classification of nonattainment areas (*i.e.*, Moderate or Serious). In the case of $PM_{2.5}$ SIPs, projected inventories could be needed either for a 10-year inventory for a maintenance plan or for a projected attainment year inventory for a Moderate or Serious SIP. The EPA anticipates that the following could occur during the period of this RIA resulting in 14 future-year projected inventories: Maintenance plans for the 1997 $PM_{2.5}$ standard (3) and for the 2006 $PM_{2.5}$ standard (7), 2012 $PM_{2.5}$ standard areas bumped from Moderate to Serious (2), and 2012 $PM_{2.5}$ standard Serious area attainment plans due (2). For new base year inventories for the nonattainment areas, EPA anticipates a total of 22 of these as follows: for all the cases just described for $PM_{2.5}$ SIP projected attainment inventories above (14) and for second maintenance plans (8).

In addition to the ozone and $PM_{2.5}$ standards where most of the activities would occur during the 2024-2026 period, EPA considered whether any state activities beyond the AERR reporting activities would be necessary for the NO_X SIP call (40 CFR 51, Subpart G) and determined that there are not. For Regional Haze SIPs, the inventory work needed for the 2025 progress reports would generally have been completed prior to 2024, but the emissions inventory work for the third planning period will likely occur in part during 2025 and 2026. The EPA also considered whether any emissions-related SIP work would be necessary for CO or NO_2 maintenance areas and concluded none would occur during the 2024-2026 analysis period. Finally, for SO_2 and Lead nonattainment areas, while some activities related to emissions may occur, EPA assumes that no additional emissions activities beyond what SLTs do for annual and triennial emissions reporting and permitting efforts already covered by ICRs would be needed. This is in part because emissions levels used in modeling for these SIPs are usually PTE levels, the values for which are available in permits and collected via other ICRs as previously described.

The EPA additionally has assumed that no further emissions inventory preparation burden exists for NO_2, SO_2, or Lead SIP development. This assumption has been made because SIPs for these pollutants use source-specific analyses that require detailed PTE emissions and facility emissions release parameters. The PTE information is included in facility permits and its collection is, therefore, covered by the 40 CFR Part 70 State Operating Permit Program (EPA ICR Number 1587.15, OMB Control Number 2060-0243) and the 40 CFR Part 71 Federal Operating Program (EPA ICR Number 1713.13, OMB Control Number 2060-0336). The emissions release parameters for those facilities needed for completing these SIPs are covered by the annual emissions inventory collection, for which the burden is included in this analysis.

Finally, EPA has identified that no CO maintenance plans or SIPs are due during the 2024-2026 period of this analysis.

3-A.2 SLT burden for emissions-related SIP requirements

To estimate costs associated with SIP emissions inventory data preparation, this methodology uses three steps. First, as listed in Table 3-A-1, EPA estimated the number of states or local agencies that will need to create emissions data for each emissions-related SIP activity occurring during the 2024-2026 analysis period (*e.g.*, for the ozone program this would be the number of agencies with nonattainment planning obligations; for the regional haze program, this would be each state air agency). Second, EPA estimated the number of hours associated with creating the emissions data that are beyond hours associated with emissions work for annual and triennial submissions under the AERR. Third, EPA multiplied the number of entities and the number of hours to get the total hours, including hourly cost information in those calculations to also get annualized costs.

Based on the standards and activities listed in Table 3-A-1, EPA grouped activities across the air quality standards and aggregated the areas affected. The "Number affected" column in Table 3-A-2 provides the totals of affected nonattainment areas and/or states. The other columns in that table provide EPA's estimated number of additional annual hours beyond annual/triennial reporting to perform the emissions-related steps for SIPs. A party performing these activities would, at most, perform each activity listed only once during the 3-year analysis period. So, to provide the annualized burden per entity, EPA divided the total number of hours for each activity by 3. The EPA assumed that managerial hours for these tasks were 5 percent of the technical hours. For preparation of periodic ozone season emissions, EPA calculated that there are on average 1.3 states associated with each ozone nonattainment area. Since the row included periodic inventories counts by area, the hours were set to be 30 percent higher in this row than for similar activities in the subsequent two rows.

Table 3-A-2: Annualized Burden per SLT respondent for SIP emissions activities

Activity	Number affected	Count By	Manager Hrs/yr @ $118.94/Hr	Engineer Hrs/yr @ $90.83/Hr	Total Hours/ Year	Labor Cost/Year
1. SLT prepare periodic ozone season emissions for point, nonpoint, mobile, and events	58	Area	10.67	208	219	$20,160
2. SLT prepare any projected year NAA emissions for point, nonpoint, and mobile	28	Area and State	8.67	173.33	182	$16,774
3. SLT prepare any base year inventory for the NAA	74	Area and State	17.33	346.67	364	$33,548
4. SLT prepare emissions for any modeled attainment demonstration (includes future emissions and processing)	42	Area and State	8.67	173.33	182	$16,774
5. SLT prepare emissions for regional haze modeling for third planning period	51	State	17.33	346.67	364	$33,548
Average Burden per State	**51**	**State**	**67**	**1,324**	**1,391**	**$128,175**

To calculate an average value across entities, EPA chose to make this calculation by state (including the District of Columbia), even though some of the burden is also shared by local agencies and tribes. This averaging approach allows for comparison between this analysis and subsequent analyses that would be needed for future SIP-related ICRs, for which the number of estimated entities per activity may change. The EPA recognizes that all emissions-related activities do not apply to all states and that some such activities are performed by local agencies and tribes. The total burden associated with the rule will not be affected by this calculation, but rather, we provide this state average only for comparison purposes with other estimates in this analysis and with subsequent ICRs.

3-A.3 Burden on Owners/Operators Related to Emissions Inventories for SIPs

To estimate burden on owners/operators that is related to emissions inventory submissions in support of SIPs, EPA has estimated the number of affected facilities and the number of hours to report seasonal emissions needed for SIPs that go beyond the effort for annual reporting associated with the AERR (and covered in the primary RIA). These efforts are to report the seasonal data, such as ozone-season-day emissions.

To estimate the number of facilities affected, EPA has estimated the number of facilities that SLTs collect to comply with requirements to create inventories for nonattainment areas for Ozone SIPs and $PM_{2.5}$ SIPs. Only those standards are included because reporting the season-day emissions (that can be used for emissions inventories for those standards) would impose additional burden on facilities and states to estimate those emissions. To estimate the number of facilities, EPA analyzed NEI facilities within nonattainment areas. Facilities were counted as being directly or indirectly required to report for SIP reasons if any of the following were true:

1) The facility is listed as a "CAP Major" or "HAP/CAP Major".
2) The facility has emissions of 5 tons or more of NOx or VOC.
3) The facility had 10x or more the minimum value of NOx or VOC of any Major facilities within the area. This step is done because NO_X and VOC emissions reporting thresholds are based on PTE rather than actual emissions. The minimum values for NO_X and VOC for all Major facilities within any given area are usually much less than 1 tpy, so this approach is conservative.

Based on this approach, EPA estimated 8,947 facilities were required to report based on nonattainment area emission inventory requirements. This value was rounded to 8,950 for the burden calculations made for this proposed rule.

To estimate the number of hours, EPA considered that the bulk of emissions reporting burden is associated with reporting annual emissions to states because annual emissions reporting covers reporting of all facility attributes (units, processes, release points, etc.) and emissions of all required pollutants. The incremental burden to add season-day emissions would be low because these are just a few more emissions values to include in a report. The EPA assumed this effort would be 15 percent of the annual reporting burden, or 4 hours per facility once within each three-year period.

3-A.4 Total Estimated Costs per Year of Emissions Inventories for SIPs

Based on the information in the previous sections, Table 3-A-3 provides the resulting annual costs associated with creating the emissions inventories for SIPs. The estimated total costs to SLTs are about $6.5 million per year while costs to owners/operators are about $1.2 million per year. As with the other annual costs in this RIA, these costs are in 2021 dollars.

Table 3-A-3: Total Annual Cost of Emissions Inventory Preparation Activities for SIPs

Activity	Average Number Entities Per Year	Total Hours Per Year	Total Costs Per Year
SLTs collect required SIP emissions data	51	70,941	$6,536,925
Owners/Operators report season-day CAPs by facilities within	2,983	11,933	$1,207,391

nonattainment areas to states			

APPENDIX 3-B: COSTS OF VOLUNTARY ACTIVITES

The RIA and the draft Information Collection Request (ICR) for this proposed action includes collection of both mandatory and voluntary data from states (defined to include certain local and tribal governments) for annual and more extensive triennial collections of emissions data. The draft ICR also covers the proposed collection of mandatory and voluntary data from owners/operators that emit emissions at or above proposed reporting thresholds and that perform source tests. The baseline for this proposed action presumes that data submitted to EPA voluntarily under the current AERR is considered an additional cost of this proposed rule and therefore has not been included in the RIA's analytical baseline. The RIA describes this issue regarding the baseline in Chapters 1 and 5. This Appendix describes the costs associated with activities that are already being done voluntarily.

3-B.1 Voluntary Reporting Under the Current and Proposed AERR

While the current AERR provides support for voluntary data collection, and many states provide a considerable amount of useful HAP data, the EPA has significant evidence that the current voluntary reporting program from states is insufficient to meet the Agency's data needs, even when EPA augments the data using the TRI. The EPA discusses this evidence that the current voluntary reporting program from states is insufficient to meet EPA's data needs in section IV.A of the proposal preamble. In addition, under the current voluntary program, some states submit extensive HAP data, while others submit little or no HAP data. Finally, the longstanding absence of stationary source data from sources within Indian country and the lack of success in collecting sufficient data for estimating emissions of many prescribed fires in many states is indicative of several significant gaps in emissions data needed by the EPA to carry out many required programs. Given the current incompleteness of emissions data, the EPA believes that one appropriate approach for this RIA is to consider a baseline that does not include the costs associated with the voluntary collection of emissions data by states.

A significant part of the burden as shown in this RIA is associated with the proposed requirements that codify collecting data currently reported by SLTs voluntarily. Another part of the burden includes activities already incurred by states such as operation and maintenance of their emissions collection system. This Appendix focuses on the burden associated with these voluntary and existing activities. These sources of burden under the current AERR and proposed AERR, both for the ICR analysis period of 2024-2025 and 2027 and beyond, are listed in Table 3B-1 including the status of those as voluntary or mandatory under the proposed rule. In the table, V represents voluntary, R indicates required, and V/R indicates a voluntary activity that becomes required when states choose to report HAP on behalf of owners/operators.

Table 3B-1: List of sources of burden that are voluntary under current or proposed AERR over time

Source of burden	Current AERR?	2024-2026*	2027-
States report emissions for nonpoint sources	R	V	V
Owners/operators outside of states' implementation planning authority report CAP and HAP	V	R	R
Owners/operators report HAP from point sources (and states can voluntarily report on their behalf)	V	V	R
States report emissions from additional facilities (due to HAP thresholds under proposed AERR)	V	V	V/R
States prepare for use of CAERS	V	V	V
States update emissions regulations to include HAP	n/a	V	V/R
States apply to report HAP	n/a	V	V/R
States provide activity and related information for prescribed burning	V	V	R
States provide activity and related information for wildfires	V	V	V
Rail companies provide rail yard data	V	V	V

* The years shown in this table are the years in which the burden occurs. The related NEI year is one year earlier.

As shown in Table 3B-1, there are four activities that are currently voluntary that will become mandatory under the proposed rule. These are (1) owners/operators reporting HAP from point sources, (2) owners/operators reporting CAP and HAP from point sources outside of states' implementation planning authority, (3) states reporting for additional facilities due to the HAP threshold change (when reporting HAP on behalf of owners/operators), and (4) states reporting activity and related information for prescribed burning. Of these, the activity for states to report additional facilities due to the HAP threshold change is the most significant contribution to the overall burden.

3-B.2 Total Estimated Burden with Comparison of Burden Estimates Associated with Voluntary Activities with Those of Mandatory Activities

Table 3B-2 includes total estimated burden split by respondent, activity, and mandatory or voluntary activities for the analysis period of the ICR (2024-2026). Total estimated burden for all entities combined is 1,142,927 hours for mandatory activities (or 92 percent) and 99,115 (or 8 percent) for voluntary hours during the 3-year period of the ICR. Of this, the estimated burden for states is 317,454 hours for mandatory activities (or 76 percent) and 99,087 for voluntary activities (or 24 percent). Estimated burden for owners/operators is 825,473 hours for mandatory activities and 28 hours for voluntary activities. Thus, the estimated burden for owners/operators is almost entirely (more than 99 percent) is for mandatory activities.

Given the nature of these estimates, the distribution of the costs will mirror the distribution of labor hours associated with these activities. Thus, for the states, roughly 76 percent of the costs of this proposal for the ICR analysis period of 2024-2026 are incurred as a result of provisions that are mandatory (required for this proposal, and not being done in the baseline). The costs reflect that 24 percent of what is incurred is due to voluntary provisions. For owners/operators, virtually all of the costs incurred for the ICR analysis period of 2024-2026 are due to mandatory provisions. Thus, the issue of whether to consider the costs of voluntary provisions now codified in this proposal as belonging in the baseline for owners/operators has little impact on the proposal cost estimates. It is a nontrivial consideration in the costs of the proposal for states, however. Finally, when impacts across all sources are considered, the impact of mandatory provisions is 92 percent, with a nontrivial share of 8 percent for voluntary provisions.

Table 3B-2: Total Estimated Burden for Proposed AERR Requirements for 2024-2026

Entity	Activity	Mandatory Hours	Voluntary Hours	Total Hours
States	Update emissions regulations and build prescribed burning collection system	156,784	0	156,784
	Convert to CAERS, update regulations to include HAP, and apply to report HAP		88,554	88,554
	Emissions reporting to EPA	45,456	10,533	55,990
	Maintaining emissions collection system (Operations/Maintenance)	115,214	0	115,214
	State SubTotal	**317,454**	**99,087**	**416,542**
Owners/ Operators	Source test reporting	161,040	0	161,040
	Emissions data reporting to the EPA (Indian country and rail companies)	11,466	28	11,494
	Reporting required data (for AERR) to states	144,993	0	144,993
	Preparing to report release point locations	507,973	0	507,973
	Owners/Operators SubTotal	**825,473**	**28**	**825,501**
	Total	**1,142,927**	**99,115**	**1,242,043**

For 2027 and beyond, the requirement of collecting HAP emissions starting in 2027, after not being a requirement before that year, means that all burden of owners/operators reporting to both states and directly to EPA becomes a part of the burden estimate for the proposed rule. Although the increase in burden to owners/operators from the 2024-2026 period appears large, states are voluntarily collecting CAP and, in some cases, HAP from nearly 59,000 facilities (based on 2017 NEI data) in addition to the 12,379 required facilities. Thus, the practical impact on owners/operators is lower than what is captured here because the voluntary state collections include far more facilities than the required minimum. In other words, while this proposed action would require reporting for about 117,000 additional facilities beyond the current AERR, 59,000 (or slightly more than 50 percent) of those facilities are already reporting to states. Hence, 58,000 owners/operators (or just less than 50 percent) facilities will have to report such emissions to comply with the AERR that do not have to under the current AERR.

In conclusion, the issue of the most reasonable and accurate baseline is an important consideration for the estimation of burden estimates. In particular, as shown above, it is important for the estimation of burden estimates for states given the amount of voluntary activities that will continue during the analysis period as compared to mandatory activities. This baseline issue becomes less of an analytical concern for states beginning in 2027 given that the bulk of burden estimates will be for mandatory activities to reflect the changes included in Table 3B-1. For owners/operators, this issue has minimal influence on the analysis given that virtually all of the burden estimates are for mandatory activities during the 2024-2026 ICR analysis period, and also for 2027 and beyond.

4 INITIAL REGULATORY FLEXIBILITY ANALYSIS

4.1 Introduction

Pursuant to Section 603 of the RFA, the EPA prepared an initial regulatory flexibility analysis (IRFA) that examined the impact of the proposed rule on small entities along with regulatory alternatives that could minimize that impact. The EPA is soliciting comment on the presentation of its analysis of the impacts on small entities. As required by Section 604 of the RFA, the EPA will prepare a final regulatory flexibility analysis (FRFA) for this action as part of the final rule. The FRFA will address the issues raised by public comments on the IRFA.

An IRFA illustrates how EPA considers the proposed rule's small entity effects before a rule is finalized and provides information about how the objectives of the rule were achieved while minimizing significant economic impacts on small entities. We provide a summary of IRFA elements; the preamble and SBAR Panel report for this proposed rule provide additional background and details.

4.2 Why Action by the Agency is Being Considered

As stated in the summary to the proposed AERR preamble, this action proposes changes to the current EPA emission inventory reporting requirements in 40 CFR Part 51, Subpart A, also called the Air Emissions Reporting Requirements (AERR). The proposed amendments may require changes to current regulations of air pollution control agencies, meaning state, local, and certain tribal air agencies. The proposed amendments would require these agencies to report emissions data to the EPA using different approaches from current requirements and would require owners/operators of some facilities to report additional emissions data. More specifically, the EPA is proposing to require certain sources report information regarding emission of hazardous air pollutants. The proposed revisions would also define a new approach for optional collection by air agencies of such information on hazardous air pollutants by which state, local and certain tribal air agencies may implement requirements and report emissions on behalf of owners/operators. The proposed revisions would also make the requirements for point sources consistent for every year; phase in earlier deadlines for point source reporting; add requirements for reporting fuel use data for certain sources of electrical generation associated with peak electricity demand; add requirements for reporting activity data for prescribed fires; clarify expectations for reporting data for airports, rail yards, commercial marine vessels, and locomotives; change requirements for nonpoint sources when the EPA has published emissions methods; add a requirement for completing a nonpoint survey; change nonpoint source deadlines; change reporting requirements for nonpoint data when an Indian tribe reports; and make a variety of clarifications and administrative changes.

For owners/operators of facilities that meet criteria described in this proposal, the proposed revisions would require emissions reporting of hazardous air pollutants, except when an air agency is approved to report on their behalf; would require sources within Indian country not reported by an air agency to report all identified pollutants to EPA; and would require reporting of performance test and performance evaluation data to the EPA for all tests conducted after the effective date provided in the final rulemaking.

The proposed amendments in this action would ensure that communities have the data needed to understand significant source of air pollution that may be impacting them and ensure that the EPA has sufficient information to identify and solve air quality and exposure problems. The proposed amendments would also allow the EPA to have information readily available that the Agency needs to protect public health and perform other activities under the Clean Air Act (hereafter referenced as the CAA or "the Act"). The EPA has taken a systematic approach in developing this proposed action to ensure that key emissions information is collected in a streamlined way, while preventing unnecessary impacts to small entities within the communities we seek to inform and protect. The proposed amendments would continue EPA's partnership with states in a way that also respects the framework provided by the CAA.

4.3 Objectives of, and Legal Basis for, the Proposed Rule

With this action, the EPA proposes amendments that would ensure HAP emissions data are collected consistently for all communities across the country. Currently, the availability and detail of HAP emissions data varies across states, which creates a situation where some communities have incomplete or less accurate information than others, while still facing the same or greater potential risks. To accomplish this within the authorities provided by the CAA, the EPA proposes new requirements on owners/operators under CAA Part A to report HAP emissions directly to EPA. Consistent with provisions of the current version of the AERR, the

EPA proposes to retain state reporting of CAPs under CAA Part D, retain voluntary state reporting of HAP, and proposes an approach by which a state may report HAP emissions on behalf of sources in that state.

To reduce the possibility of redundant or conflicting HAP emissions reports coming to the EPA from both states and owners/operators of facilities, this action proposes that states may elect to assume an owner/operator's responsibility for HAP reporting, provided that the state receives EPA approval that its HAP reporting rules satisfy the proposed requirements that would otherwise need to be met by owners/operators. Requirements for owners/operators would continue unless and until the EPA approves the state program, at which point it would become a state responsibility (*i.e.*, state reporting would no longer be voluntary for that state). In such cases, the requirement for owners/operators to report directly to the EPA under this proposed action would be suspended provided that the state continued to have the responsibility and obligation to report the source's emissions.

Owners/operators already report HAP to many states. To allow for the EPA and states to streamline reporting for owners/operators, the EPA proposes to require owners/operators to report to the EPA using the Combined Air Emissions Reporting System (CAERS). This emissions collection system has been developed by the EPA to streamline reporting from owners/operators to multiple EPA and state programs. While this proposed amendment would add reporting requirements on owners/operators, CAERS can offset and even reduce total burden by providing owners/operators a way to report to the National Emissions Inventory (NEI), Toxics Release Inventory (TRI), as well as state programs. The EPA plans future enhancements to CAERS to share emissions data with the Greenhouse Gas (GHG) Reporting Program (GHGRP) and the Consolidated Emissions Data Reporting Interface (CEDRI), which will help owners/operators further streamline their reporting requirements.

This proposed action does not require states to use CAERS, but the EPA expects its use would help streamline emissions reporting efforts for facilities, prevent duplication of effort, and lessen burden on states for maintaining their own emissions collection systems. The EPA proposes that if the EPA approves a state for HAP reporting under the proposed option for doing so, a state would be able to continue using their existing emissions reporting forms and approaches provided that such approaches were updated to reflect any new AERR requirements.

Depending on choices made by a state, owners/operators would either report to the EPA using CAERS, to the state using CAERS or a state system, or to CAERS for HAP and to a state system for pollutants required by the state.

The EPA anticipates that many current or future state regulations will have more stringent HAP reporting requirements than those proposed in this action. A state could require reporting by owners/operators of facilities and for pollutants that would not otherwise be regulated based on this proposed action. If that occurs, a state that is approved to report HAP would be obligated only to report to the EPA those facilities and pollutants that would be required by this proposed action.

The proposed amendments would also rely on reporting by owners/operators directly to the EPA to ensure data for all pollutants are submitted by facilities that are outside the state's implementation planning authority. Most facilities of this type are located within Indian country and within Federal waters. Under the current AERR, emissions from these facilities are only reported to the EPA if a tribe chooses to do so, either voluntarily or through a formal TIP in which the tribe has accepted the AERR reporting requirements. The EPA also collects data from the Bureau of Ocean Energy Management (BOEM) for certain offshore facilities within their jurisdiction. In the current AERR, states do not report emissions data from federally permitted facilities within Indian country or elsewhere that are not regulated by a state. The current AERR and this proposed revision defines certain facilities as "point sources" to ensure that the EPA has detailed data on individual facilities when needed. The proposed amendments would ensure that point source facilities and their emissions are reported to the EPA either via the state where appropriate or by owners/operators. This requirement would apply regardless of whether a facility is located within Indian country, offshore, or other locations.

The EPA proposes to revise emissions reporting by states for nonpoint sources (as defined in the AERR at 40 CFR 51.50) to improve data quality, consistency, and transparency for triennial reporting. These proposed revisions are based on an evolution of voluntary approaches that have been implemented under the current AERR and evaluated by the EPA while implementing the last several triennial NEIs. If finalized, this proposed action would make mandatory those currently voluntary approaches that support collaboration between states and the EPA on nonpoint source emissions to make the needed improvements. For more information, please refer to the proposal preamble.

For commercial marine vessel and underway locomotive emissions, the EPA proposes to add a clarifying statement about treating such sources as nonpoint sources for submission to the EPA under the AERR. The EPA also proposes to require states to report emissions data associated with EPA's standardized emissions calculation methods. States would be required to either (a) report annual emissions and documentation, (b) provide comment on EPA-provided data, or (c) accept EPA-provided data.

The EPA intends to retain the current requirement for states to report emissions for nonpoint sources for which the EPA does not have emissions estimation tools. However, the EPA proposes to add a documentation requirement for such sources, which is not included in the current AERR. Consistent with the current rule, this proposed requirement would be limited to CAP emissions, but states may also voluntarily submit HAP emissions for these sources.

The EPA proposes to require states to report activity data for certain prescribed fires on state, private, or military lands for the purpose of data quality and completeness, specifically excluding prescribed fires that occur on non-military Federal lands. States would report fire activity data on a day-specific basis for each broadcast and understory burn affecting 50 acres or more. Similarly, states would report prescribed fire activity data for a pile burn affecting 25 acres or more, including fires with both pile and broadcast or understory characteristics. EPA is committed to helping communities and our Federal, state, local, and tribal partners to manage the health impacts of smoke from wildland fires including prescribed fires. EPA acknowledges that these partners view the use of prescribed fire as an important tool for reducing wildfire risk and the severity of wildfires and wildfire smoke. This proposal would help gather information needed to best estimate emissions from prescribed burning. The EPA also proposes to add a requirement that, for the purposes of data reported to EPA, man-made grassland/rangeland fires are considered prescribed fires and not agricultural fires.

The proposed revisions would clarify how states other than California can meet the current requirement to report onroad and nonroad emissions model inputs by submitting only select inputs. California would not be impacted by this proposed clarification because this proposed action would retain the current requirement for California (at 40 CFR 51.15(b)(3)) to submit emissions data from its own mobile models rather than model inputs. This proposed action would establish the following minimum model inputs to be reported: a county database checklist, vehicle miles traveled, and vehicle population. Additionally, the EPA proposes a list of other mobile model inputs that states can optionally provide and proposes to remove certain inputs from being submitted in any situation.

The EPA also proposes to add a requirement for California to provide documentation regarding the onroad and nonroad emissions data they submit, which would describe the inputs, modeling, post-processing of data, and quality assurance performed by California to create the emissions submitted to EPA.

The EPA proposes additional changes that impact all source categories. First, this action proposes to add a definition of "actual emissions" that would apply specifically of this subpart A of Part 51 (to the AERR). The proposed definition would clarify the relationship between the term "actual emissions" and other emissions terms including emissions from periods of startup, shutdown, and malfunction (SSM). Second, this proposed action would provide language to better address the relationship of the requirements of this subpart to the requirements of the NO_X SIP Call, Regional Haze requirements, Ozone SIP Requirements Rules, and the $PM_{2.5}$ SIP Requirements Rule.

For additional details on the legal objectives of this rule, please refer to the proposal preamble.

4.4 Number of Small Entities to Which the Proposed Rule Will Apply

The Regulatory Flexibility Act (RFA) defines small entities as including "small businesses," "small governments," and "small organizations" (5 USC 601). The RFA references the definition of "small business" found in the Small Business Act, which authorizes the SBA to further define "small business" by regulation. The SBA definitions of small business by size standards using the North American Industry Classification System (NAICS) can be found at 13 CFR 121.201. EPA has used 2017 NAICS codes because EPA has used 2017 emissions data in preparing this proposal and Panel report and because this work was started before the 2022

NAICS codes became the official industry classification list for SBA's small business size standards as of October 1, 2022.

EPA has developed a methodology to estimate the number of small businesses by each NAICS code under consideration for inclusion in any new reporting requirements for non-major sources. Appendix A of the SBAR Panel report provides a listing by NAICS code of SBA definitions of small businesses for potentially affected industries or sectors. Only the NAICS codes under consideration for the rule for non-major sources are included in this list, which also covers the majority (about 12,200 out of 13,400) of major sources. Some other NAICS codes in the 2017 National Emissions Inventory (NEI) are associated with about 1,200 major sources, and some fraction of these are also small businesses that could be affected by changes to the AERR described above. EPA estimates that small entities will be affected by this proposal when they are major sources, and for non-major sources, have primary NAICS as listed in Chapter 2 of this RIA. The EPA estimates that approximately 34,000 small entities could be impacted by this rule based on the CAA definition that the EPA proposes to use for this rule. That number would increase to approximately 43,000 if the EPA were to use the SBA small business size definitions, based on information available in Appendix 4-A of this RIA.

However, EPA's methodology for estimating the number of small businesses has numerous assumptions that would lead to overestimates (as described in Attachment 4 of the SBAR Panel report). As a result, the fraction of 1,200 major sources not listed in this Report would not have a significant impact on the Panel's findings and recommendations.

In addition, EPA plans to propose using the small business definition from CAA § 507 rather than the SBA definition, the latter of which is inclusive of more businesses.[24]

4.5 Overview of Revisions under Consideration

Through agency review and stakeholder input, a broad range of emissions inventory data collection improvements have been suggested that may have implications for small businesses. The following is a listing of regulatory revisions currently being considered by EPA with potential impact to small businesses and is not final at this time. More details about these (and

[24] *See* 42 U.S.C. 7661f(c).

other) revisions under consideration are available in the documents provided in the materials as listed in Appendix B of the SBAR Panel report.

- Revise the definition of "point source" to include all stationary sources with emissions that exceed pollutant-specific levels.
- Require major stationary sources[25] and HAP major sources[26] to report all HAP.
- Require non-major sources with certain NAICS codes to report HAP for which a facility total exceeds pollutant-specific levels (some of these facilities are expected to be small businesses).
- Require reporting of CAP emissions associated with HAP, when relevant (for example, require total VOC when any VOC HAP are reported or total PM_{10} and $PM_{2.5}$ when any PM HAP are reported).
- Require reporting of HAP from owners/operators directly to EPA, except when a state has been approved by EPA to report on behalf of owners/operators.
- For facilities operating within Indian country that meet the point source definitions, require direct reporting to EPA of those pollutants that exceed the emissions thresholds, except when the tribe is reporting CAP or has been approved by EPA to report HAP on behalf of owners/operators.
- Require reporting of source tests (performance tests and performance evaluations) for tests that meet certain criteria.
- Require additional data fields for missing information that EPA needs to meet its obligations, including fuel consumed for combustion processes.
- Clarify that certain existing requirements will be enforced during data collection and clarify definitions, including that the emissions reported must include emissions

[25] Sources that emit or have the potential to emit one hundred tons per year or more of any air pollutant (42 U.S.C. 7602(j)), referred in this report at "CAP major sources."
[26] Generally, sources that emit or have the potential to emit 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants (*see* 42 U.S.C. § 7412(a)(1)), hereinafter "HAP major sources." In this report, the term 'non-major' refers to stationary sources that are not CAP or HAP major sources.

associated with periods of startup, shutdown, and malfunction.

- Define all data reported under the AERR as meeting the definition of "emission data" and, as such, would not be subject to confidential treatment.
- Require that facilities use available source test results to calculate emissions or explain why they are not able to be used.
- Require facilities to use best available emissions calculation methods.
- Specify a phase-in of earlier reporting for facilities.

In addition, because EPA plans to revise or add certain requirements on state agencies required to report emissions data to EPA, small businesses could anticipate such requirements being passed along to them. The relevant changes to state requirements that could impact small businesses are not final and are listed below.

- Provide states an option to continue to report HAP emissions on behalf of facilities if they meet various additional EPA requirements consistent with the revised AERR.
- Once a year, report daily fuel use or heat input for small electricity units (e.g., boilers, generators), that generate electricity for the grid or for on-site use (e.g., demand offset purposes). These data could be collected from individual facilities, curtailment service providers, or other electricity aggregators.
- Specify a phase-in of earlier reporting of point source data for states.

4.6 Cost Impact to Small Entities

As stated earlier in this RIA chapter, there are about 39,000 small entities likely to be impacted by this proposal using the SBA small business size definitions and 34,000 if using the alternative definition in CAA section 507. Using the annual cost estimated per owners/operators for 2027, which are presumed for this calculation to be private sector entities (not SLT), and to reflect the first year of full implementation of this proposal, as taken from Table 3-28 of this RIA, we find that the average annual cost of the proposal to entities, small and large, that are owners or operators to be $3,476 per establishment (2021 dollars). This average proposal cost is equal to $450,100,000 (the cost in 2027 to owners/operators) divided by 129,490 (the estimated total number of affected owners/operators, which are establishments), as presented in Table 3-28. In addition, the Technical Support Document (TSD) for this proposal[27] estimates that 31,412 facilities are small (or, part of a small entity) out of 129,490 establishments likely to be affected by the proposal. From these estimates, 24 percent of the affected establishments, or owners/operators, can be presumed to be owned by a small entity. Thus, the portion of establishments affected by this proposal in 2027 that are owned by small entities could reasonably be approximated as 24 percent.

Given the many industries impacted by this proposal, and the uncertainties with determining how many entities could be impacted by industry, we show the annual revenues that would be consistent with a potentially significant economic impact. With an average cost per establishment (defined as a place of business) in 2027 of $3,476, any small entity that may have costs of 1 percent of their revenues or greater than this amount could be said to experience a potentially significant economic impact. Thus, small entities with revenues of less than 3,476 *100 = $3,476,000, measured in 2021 dollars, may potentially experience a significant economic impact assuming they own a single establishment. At a level of impact of 3 percent or greater, the annual revenues for an entity would be $3,476,000/3 = $1,158,900 for the cost estimate per establishment arrived at above, and again assuming a single establishment per firm. These estimates are for an average estimate of revenue per firm and may not be fully reflective of the annual revenues for many small entities potentially affected by this proposal.

4.7 Related Federal Rules

As mentioned in more detail in Chapter 1 of the RIA, the AERR serves as the reference for the NO_X SIP Call (40 CFR part 51 Subpart G), Regional Haze requirements (50 CFR part 51, Subpart P), Ozone SIP Requirements Rules (40 CFR part 51, Subparts X, AA, and CC) and the $PM_{2.5}$ SIP Requirements Rule (40 CFR part 51, Subpart Z). These other rules point to the AERR to define certain requirements related to emissions inventories for SIPs, collectively known as SIP planning inventories.

[27] U.S. EPA. Technical Support Document for the Proposed Revisions for the Air Emissions Reporting Rule, June 2023.

In addition, 40 CFR § 2.301 includes special rules governing certain information obtained under the CAA. Subparagraph 2.301(a) includes a definition of "emission data" that is related to data collected by the existing AERR and its proposed revisions. This definition is relevant for interpreting the provision of CAA 114(c), which excludes emission data from the consideration for confidential treatment.

4.8 Significant Regulatory Alternatives

A number of regulatory alternatives were considered in order to mitigate impacts to affected small entities while achieving the objectives of this proposal. The SBAR Panel recommended, among other things, that the EPA propose allowing any small business subject to revised reporting requirements under this proposal to report aggregated emissions for the facility as a total fugitive emissions value rather than the detailed emissions by process and release point. Since the EPA is not proposing to change reporting thresholds for criteria pollutants, this recommendation only applies to HAP emissions reporting and any incidental CAP emissions (as described in the proposed AERR preamble, section IV.A.10).

During the SBAR Panel, the EPA observed that risk modeling using facility total emissions would be more conservative than using more detailed emissions that could include stack releases, because all emissions would be modeled as ground-level fugitive emissions. With more specific data about emissions releases (*e.g.*, through stacks raised above ground level), the modeling includes more dispersion of pollutants that can lower modeled concentrations at the ground level thereby lowering modeled risk. The EPA additionally observed that if modeled risk from facility total emissions were high enough, the Agency would have an interest in collecting more detailed data to better assess risk. While aggregated data (facility total emissions) are not as useful to the EPA as the more detailed data, this approach balances EPA's needs for these data with the burden on small businesses. Under this proposed approach, EPA's available data is less complete, although still helpful, and the burden on small businesses is reduced when compared to the requirement to report the full suite of detailed data that the EPA is proposing to require for other sources that are not small businesses.

Based on these considerations, the EPA proposes to provide owners/operators the option to report a facility total emissions instead of the detailed data otherwise required when (1) they meet the small entity definition as proposed by this action, (2) the owner/operator has never been notified that the EPA has modeled a cancer risk for the facility of 20/million or more, or the EPA has made such a notification less than 180 days prior to the next point source emissions reporting deadline, and (3) estimates of emissions with the process-level detail that would otherwise be required by this proposed action are not required by a state.

The EPA is considering the facility total cancer risk level above which an owner/operator would not be able to use the optional facility-total reporting accommodation (which is item 2 in the previous paragraph). The cancer risk level range under consideration is from cancer risk of 1/million, which is the level used to develop the proposed emissions reporting thresholds for HAP to 100/million, which is the level the EPA uses to help formulate emissions reductions strategies as part of NESHAPs and other HAP regulatory programs. In addition, the EPA is considering the degree of uncertainty that can exist when estimating risks through modeling and is recommending that a modeled cancer risk between 10/million and 30/million would be appropriate to warrant more detail emissions reporting. Using a cancer risk of 1/million for this purpose would not provide much burden reduction because 1/million is the basis of the proposed HAP reporting thresholds, above which non-major sources would need to report. Beyond a cancer risk of 30/million, the upper uncertainty range is more likely to reach 100/million, for which the EPA certainly needs better HAP data. The EPA encourages commenters to provide feedback on the proposed choice of the midpoint of this range of 20/million estimated cancer risk and identify any considerations that the EPA may have failed to consider in proposing this midpoint.

In addition to allowing for facility-wide reporting in certain situations to reduce burden on small entities, the EPA is considering how best to reduce burden for reporting the facility inventory. For owners/operators that are not small entities, the current AERR requires states to report the attributes for the facility (*e.g.*, name, address) as well as component attributes for emissions units, release points, processes, and controls. These data elements are required under the current AERR, but states report the facility inventory separately from emissions because facility attributes do not vary every year. After the first report for a facility, states under the current AERR and states and owners/operators under these proposed revisions would need only to report modifications to the facility inventory after the first year. For example, if a facility adds or removes a unit, then those changes would be submitted but the other facility attributes could likely be retained without resubmission. In the case of facility-wide emissions reporting, the facility inventory would not necessarily need sub-facility data to support the emissions reports, since emissions would not need to be allocated to the units and processes within the facility.

In addition to the facility total emissions, the EPA needs to know which units are present at facilities and which units are subject to NESHAPs or other air emissions regulations. As described in section IV.I.8 of the proposal preamble, the EPA is proposing that states and owners/operators of permitted sources would be required to provide the regulatory codes that apply to units and/or processes. To fulfill EPA's need for this information while reducing burden, the EPA is proposing that small entities would only need to report a list of their units, including all required unit-level data elements. This would reduce burden while still allowing the EPA to identify which units at each facility are subject to regulations.

To balance the potential burden with the need for information and considering the large number of businesses in the collision repair industry in particular, the SBAR Panel recommended that the EPA consider explicitly excluding small entities in the collision shop industry from new reporting requirements. Such an approach would still collect HAP data from many more facilities than are available to the EPA currently, while not burdening small entities. To address this panel recommendation, the EPA proposes to exclude small entities (except for major sources) with primary NAICS 811121 from any HAP reporting requirements under the AERR. This proposal reflects this accommodation in Table 1C of Appendix A of this subpart, which lists primary NAICS codes subject to non-major source HAP reporting requirements.

Another concern identified during the SBAR Panel was that small entities that are not already reporting emissions data to the EPA or a state may not have the necessary experience and resources to develop emissions estimation approaches where none are readily available. The SBAR Panel additionally noted that small entities would have the lowest burden when the EPA provides an emissions estimation method or there are already some other readily available emissions estimates to use because that business must report emissions to the state or TRI. The SBAR Panel Report also noted that small entities may have source test data with which emissions estimates could be made. The Panel recommended that, consistent with these concerns, a small entity would not be expected to report emissions for pollutants when the EPA does not provide a way to estimate emissions and there is no other readily available data for that pollutant.

The EPA is considering how best to address these SBAR Panel recommendations. For current AERR requirements regarding state reporting, the EPA does not address the availability of emissions estimation methods for facilities. The presumption of the current regulations is that states, in collecting data from facilities to report to EPA, would ensure that the requirements to report all CAP are met when any CAP exceeds the reporting threshold, irrespective of whether the EPA provides an emissions calculation method.

The EPA has observed in working with states under the current AERR that many states rely on the EPA WebFIRE database for emissions factors for use by owners/operators to calculate emissions in state collection systems. In the absence of source test data or site-specific emissions factors created by the facility, the collections would therefore use an EPA approach and when none is available, would be less likely to report the pollutant. Many states with HAP collection programs have also developed emissions factors, and state reports for many HAP include emissions based on these state factors. As a general matter for emissions reporting under the current AERR, when EPA, a state, or a trade association does not provide emissions calculation methods for a process/pollutant combination (even when emissions from such a combination is likely to exist), the EPA has observed that emissions data reported by states is much less likely to include emissions for that process/pollutant combination.

Based on this experience, the SBAR Panel recommendation is consistent with EPA's understanding of the practical reality of the data collection process for all businesses currently reporting to states. Namely, when EPA, states, or trade associations do not provide an emissions calculation method for a given process/pollutant combination and owners/operators do not have source tests or other readily available data, emissions reports do not include emissions for those process/pollutants. The EPA recognizes that this could be occurring irrespective of whether those processes/pollutants are required to be reported under the current AERR and state programs. At the recommendation of the SBAR panel, the EPA intends to provide an emissions estimation tool for small entities to use in support of implementing the proposed requirements. The EPA expects that providing this tool will assist with reducing situations where required data are not reported.

The EPA also addresses how development and use of this tool would lessen the burden on small entities if the provisions of this proposal were finalized.

Emissions Estimation Tool for Small Entities

This emissions estimation tool could be used by small entities to help them determine if their facility-wide emissions are above HAP reporting thresholds and to provide an emissions value for small entities to submit when emissions exceed the reporting thresholds. The SBAR Panel recommended that the EPA adopt emissions estimation approaches that rely on information that small entities can readily gather in the normal course of business.

To address these recommendations, the EPA plans to develop an emissions estimation tool to help small entities estimate facility-wide emissions. The EPA would develop this tool between the time this rule is proposed and the first year of any new point source reporting (see section IV.F of the preamble for timing information). While CAP emissions may be included in this tool, the EPA would prioritize HAP emissions because other than the addition of incidental CAP to reporting requirements, the EPA is not considering changing CAP reporting thresholds with this proposal. The emissions estimation tool would include incidental CAPs as relevant, depending on the HAP. The greatest, and most urgent, need for assistance will be for those small entities that do not have to report for any pollutants under the current AERR.

With this tool in mind, the EPA is considering the SBAR panel recommendation that the EPA should not expect small entities to develop new emissions estimation approaches when none are available. The EPA agrees in principle with this recommendation but also wants to maintain a straightforward but flexible implementation of the proposed requirements. The EPA has proposed the criteria for point source reporting to include major source status, and for non-major sources, primary NAICS codes and emissions levels. The EPA believes that adding a regulatory exemption based on emissions estimates generated by a yet to be established and evolving tool would add unnecessary complexity to the structure of the rule. This is in part because states can choose to report HAP on behalf of owners/operators. Thus, if the planned tool were to provide a regulatory exemption, states could also be expected to rely on EPA's tool, limiting their autonomy for implementation of HAP reporting requirements. While additional considerations could be included in a proposed rule to avoid that limitation, the EPA expects that such additions would add complexity and confusion that the EPA is seeking to avoid. Further, such a regulatory exemption which relied on use of such a tool could increase the burden on small entities (*i.e.*, could increase recordkeeping and reporting burden compared to the current proposal).

Further, given EPA's observations that common practice under the current AERR is for states and owners/operators to rely on EPA, state, or trade association emissions estimation approaches when better information is not available, a logical conclusion is that this situation would continue to occur under these proposed revisions to the AERR. The EPA would expect that in circumstances where better data were available for estimating emissions, the emissions estimation tool would not be used. Such an approach would be consistent with the planned AERR requirement to use the best available emission estimation methods (see section IV.I.6 of the proposal preamble). Similarly, when emissions estimates are made by an owner/operator for TRI or to meet state requirements, those emissions would be appropriate for reporting emissions to the EPA under these proposed requirements. The EPA emissions estimation tool could be used when these other emissions estimation approaches are not available, including when a state is also relying on EPA's tool to support owners/operators reporting to them, so states can report to the EPA on their behalf.

When none of these other emission estimation approaches are available, and no emissions are estimated by the emissions estimation tool, the EPA would not expect owners/operators of small entities to develop their own emissions reporting approaches because the burden associated with doing so is not warranted. If the EPA is sufficiently concerned about an emissions source, then the EPA could develop an emissions estimation approach and include it in its emissions estimation tool to assist small entities. The EPA could do so using other data available from larger businesses including emissions reports and source test data (as described in section IV.C of the proposal preamble), or if needed, issue a specialized data collection separate from this proposed rule.

The SBAR Panel had many additional recommendations about the development and outreach associated with an emissions estimation tool. Among them are:

- That the EPA work with small entities and trade associations to develop emissions estimation tools that would properly reflect the emissions processes and pollutants associated with each industry;

- As the EPA incorporates new information into its emissions estimation tool, the EPA should provide that information for industry and other parties to review and provide feedback;
- That the EPA should provide adequate time for such feedback and for revising the tool based on the feedback, dissemination, and training before requiring a new tool to be used for any given emissions reporting year;
- That the EPA coordinate with Small Business Environmental Assistance Programs (SBEAPs) in each state to support the outreach and developing guidance for small entities; and
- The EPA provide a list of units and processes for which small entities could select for emissions reporting for review and feedback.

Additionally, the EPA is proposing to provide an optional accommodation for small entities to report emissions as a facility total under certain conditions and is proposing that the accommodation would not be available if EPA's risk modeling shows estimated cancer risk of 20/million or more. If a final rule were to exclude the proposed accommodation for facility-total emissions reporting, the SBAR panel recommended that the EPA make sure that, when requiring emissions to be provided for higher level of detail, emissions calculation methods are available for use by a small entity that reports for any such facility.

To address the development and outreach recommendations of the SBAR Panel, the EPA is considering an ongoing development and review approach for the emissions estimation tool. First, in developing the initial tool prior to any new reporting for small entities, the EPA would consult with the public including industry representatives and other interested parties. This initial development would begin sometime after receiving comments on this proposal and would end prior to the first deadline for point source reporting under any revised requirements. The EPA would include in the tool emissions factors from a variety of sources. For the initial release of the tool, the EPA plans to provide the tool and underlying data at least 12 months before the first reporting deadline, giving 3 months for feedback. The EPA would consider such feedback and incorporate changes in the tool before releasing the initial version of tool in advance of any new reporting deadlines for small entities.

The EPA expects that development of the tool would evolve iteratively each year. The EPA would plan to release any revisions to the tool each year for public review and feedback and adjust the tool in advance of the next emissions inventory reporting deadlines. If the use of the tool changed, the EPA would update the training materials. This iterative approach would be coordinated with the ongoing iterative CAERS development approach that the EPA has been using very successfully for the past 3 years. The EPA would plan to funnel outreach for these efforts through SBEAPs within each state.

Currently, the EPA is considering first ensuring that this emissions tool includes key industrial processes that can be estimated at a facility level, relying on activity information that is readily available to small entities. Such industrial processes might be fuel combustion, solvent evaporation, and activities that create toxic dusts. Emission rates would depend on whether emissions controls are present and the type of controls if present. Emission factors would be used to translate some activity measure at a facility (*e.g.*, fuel usage) to emissions. To use such an estimation tool, an owner/operator would need to (1) identify its emitting activities from a list that the EPA would provide and (2) enter total facility information for fuels, other materials, energy used, or other information that could even include the number of employees. The type of information used in the emissions estimation tool would depend on the available data for each emitting activity. The tool would show the estimated emissions levels and which ones (if any) were above the reporting thresholds.

Change in Small Entity Definition for Accommodations

To implement the small business accommodations just described, the EPA is proposing a definition of small entity to be consistent with CAA Section 507(c). This definition limits small entities to those that meet all of the following criteria: (a) 100 or fewer employees, (b) is a small business concern as defined in the Small Business Act (15 U.S.C. §631), (c) is not a major source, (d) does not emit 50 tons or more per year of any regulated pollutant, and (e) emits less than 75 tons per year or less of all regulated pollutants. The SBA small entity definition is available at 13 CFR §121.201.

EPA is proposing this definition for two primary reasons. First, excluding major sources from the definition best supports the needs for data from major sources as described in proposal preamble sections IV.A.1 through IV.A.3. EPA's obligations under the CAA require process-level data from major sources, including control technologies employed. Using this definition, the proposed accommodations for small entities would not interfere with getting that necessary data from major sources.

Second, these proposed requirements are for record keeping and data reporting, which have much lower burden associated with each facility than would a proposal that includes requirements to install control devices. EPA's estimated yearly average per-facility burden for reporting emissions data starting in 2027, is just 27 hours when using in-house personnel to accomplish emissions reporting.[28] This number of hours is reasonable given the information that would be collected and its importance to EPA analyses in support of the public interest. While still "small" under the SBA definition, larger facilities (*i.e.*, those with more than 100 employees) could be more likely to emit pollutants at levels of environmental risk of concern and interest by EPA. The EPA would be able to use the additional process-level emissions data from these facilities to improve understanding of emissions from small entities at the process level and to include such sources in EPA's Technology Reviews.

Even so, the EPA is considering whether the CAA definition for small entities is the most appropriate because it does not provide as much burden reduction as would a definition based in part on the SBA definition. For the primary NAICS under consideration to define non-major sources for this proposal, the SBA definition includes owners/operators with between 200 and 1,500 employees, and for certain NAICS define small businesses based on the annual receipts of the company between $8 million and $41.5 million. As part of the SBAR Panel process, the EPA estimated the number of small entities that could be affected by the rule using a definition based on 100 employees for all NAICS codes as compared to a definition based on the SBA NAICS-specific thresholds. More details on the analysis approach are available in the supporting materials to the SBAR Panel Report included in the regulatory docket for this proposal. The EPA updated the SBAR Panel analysis with the final NAICS and reporting thresholds included in this proposal, and the analysis results are included in the TSD for this proposal. Through this analysis for the final SBAR Panel Report, the EPA estimates that using a definition of 100 employees would require reporting for about 34,000 small entities, allowing them to use the proposed small

[28] See Appendix A, Table A-2 of the ICR Supporting Statement for the Air Emissions Reporting Requirements (AERR) EPA ICR # 2170.09 for this proposal, available in the docket for this rule.

business accommodations. That same analysis estimated that using the SBA small entity definition would require reporting from about 43,000 small entities. This analysis is limited by the available data because the 100-employee used to represent the CAA small entity definition does not reflect the exclusion of major sources or the emissions-based criteria that are part of the CAA definition. As such, EPA's estimate of 34,000 most likely overestimates the number of small entities that would be subject to the proposed AERR revision, in part because some major sources are also small entities.

Given this information, the EPA is considering a "SBA Definition Alternative" that would modify the proposed definition to replace the 100-employee threshold with the NAICS-based thresholds available from the SBA definition. This alternative would still exclude major sources from being within the definition of small business but would include more non-major small entities in the definition. The EPA encourages commenters to provide information about benefits of the reduced burden on more owners/operators in comparison to the reduced data detail that the EPA would have available to estimate risks and analyze for purposes including Technology Reviews.

Further information on alternatives and efforts to mitigate small entity impacts are found in section IV of the proposal preamble.

APPENDIX 4-A: INDUSTRY SECTORS & NUMBER OF SMALL ENTITIES IN VARIOUS SIZE CATEGORIES

The columns in the table in this appendix have the following definitions. All definitions refer only to those NAICS that are included in the AERR for which current emissions data allows EPA to estimate the number of small businesses potentially affected. The SBA definition of small firms depends on the NAICS and is provided in Appendix A of the SBAR Panel report. While the CAA definition has various elements, not all could be assessed, and the definition used in this summary is firms with less than 100 employees.

No report, SBA Small: Small firms based on SBA definition that EPA estimates would not need to report

No report, Not SBA small: Firms that are larger than the SBA definition that EPA estimates would not need to report

AERR report, CAA small: Small firms with less than 100 employees that EPA estimates would need to report

AERR report, SBA Small: Small firms based on SBA definition that EPA estimates would need to report (includes small firms in the previous column)

AERR Report, SBA Not small: Firms that are larger than the SBA definition that EPA estimates would need to report

NAICS	NAICS Description	No report, SBA Small	No report, Not SBA Small	AERR report, CAA Small	AERR report, SBA Small	AERR Report, SBA Not Small	Grand Total
211120	Crude Petroleum Extraction			4,405	4,524	46	4,570
211130	Natural Gas Extraction			534	590	36	626
212113	Anthracite Mining	32					32
212111	Bituminous Coal and Lignite Surface Mining	211			12	15	238
212112	Bituminous Coal Underground Mining	114				9	123
212221	Gold Ore Mining			128	131		131
212230	Copper, Nickel, Lead, and Zinc Mining			23	23	4	27
212299	All Other Metal Ore Mining			7	7		7

NAICS	NAICS Description	No report, SBA Small	No report, Not SBA Small	AERR report, CAA Small	AERR report, SBA Small	AERR Report, SBA Not Small	Grand Total
212311	Dimension Stone Mining and Quarrying	262				3	265
212312	Crushed and Broken Limestone Mining and Quarrying	484			40	36	560
212313	Crushed and Broken Granite Mining and Quarrying	99				5	104
212319	Other Crushed and Broken Stone Mining and Quarrying	273			13	8	294
212321	Construction Sand and Gravel Mining	1,264			56	43	1,363
212322	Industrial Sand Mining	77				6	83
212324	Kaolin and Ball Clay Mining					3	3
212325	Clay and Ceramic and Refractory Minerals Mining	44			3	3	50
212391	Potash, Soda, and Borate Mineral Mining				3		3
212393	Other Chemical and Fertilizer Mineral Mining	19					19
212399	All Other Nonmetallic Mineral Mining	82	6				88
213111	Drilling Oil and Gas Wells	1,704			22	24	1,750
213112	Support Activities for Oil and Gas Operations	8,354		791	979	243	9,576
221111	Hydroelectric Power Generation	140					140
221115	Wind Electric Power Generation	89					89
221112	Fossil Fuel Electric Power Generation	62		42	103	63	228
221113	Nuclear Electric Power Generation	6				19	25
221114	Solar Electric Power Generation	142					142
221116	Geothermal Electric Power Generation	4					4
221117	Biomass Electric Power Generation	42		8	8	13	63
221118	Other Electric Power Generation	25					25

NAICS	NAICS Description	No report, SBA Small	No report, Not SBA Small	AERR report, CAA Small	AERR report, SBA Small	AERR Report, SBA Not Small	Grand Total
221121	Electric Bulk Power Transmission and Control	17		4	12	16	45
221122	Electric Power Distribution	706		257	466	61	1,233
221210	Natural Gas Distribution	308		6	54	57	419
221310	Water Supply and Irrigation Systems	3,467				46	3,513
221320	Sewage Treatment Facilities	338		39	42	27	407
221330	Steam and Air-Conditioning Supply			25	22	12	34
311111	Dog and Cat Food Manufacturing	296			3	10	309
311119	Other Animal Food Manufacturing	675		55	141	44	860
311211	Flour Milling	184			12	11	207
311212	Rice Milling	33					33
311213	Malt Manufacturing	20					20
311221	Wet Corn Milling			20	20		20
311224	Soybean and Other Oilseed Processing	77			3	8	88
311225	Fats and Oils Refining and Blending	49			3	13	65
311230	Breakfast Cereal Manufacturing	39				7	46
311313	Beet Sugar Manufacturing					3	3
311314	Cane Sugar Manufacturing	9		3	3		12
311340	Nonchocolate Confectionery Manufacturing	474				12	486
311351	Chocolate and Confectionery Manufacturing from Cacao Beans	171				5	176
311352	Confectionery Manufacturing from Purchased Chocolate	1,058				10	1,068
311411	Frozen Fruit, Juice, and Vegetable Manufacturing	129				11	140
311412	Frozen Specialty Food Manufacturing	386				28	414
311421	Fruit and Vegetable Canning	699	4			18	721
311422	Specialty Canning	89				5	94
311423	Dried and Dehydrated Food Manufacturing	171	6			8	185

NAICS	NAICS Description	No report, SBA Small	No report, Not SBA Small	AERR report, CAA Small	AERR report, SBA Small	AERR Report, SBA Not Small	Grand Total
311511	Fluid Milk Manufacturing	238				32	270
311512	Creamery Butter Manufacturing	21	5				26
311513	Cheese Manufacturing	390				11	401
311514	Dry, Condensed, and Evaporated Dairy Product Manufacturing	100	5			15	120
311520	Ice Cream and Frozen Dessert Manufacturing	353				16	369
311611	Animal (except Poultry) Slaughtering	1,318	3			21	1,342
311612	Meat Processed from Carcasses	1,156	40				1,196
311613	Rendering and Meat Byproduct Processing	83	10				93
311615	Poultry Processing	233			40	35	308
311710	Seafood Product Preparation and Packaging	439			5	9	453
311812	Commercial Bakeries	2,696	54				2,750
311813	Frozen Cakes, Pies, and Other Pastries Manufacturing	167	15				182
311821	Cookie and Cracker Manufacturing	318	10				328
311824	Dry Pasta, Dough, and Flour Mixes Manufacturing from Purchased Flour	338	21				359
311830	Tortilla Manufacturing	345	3				348
311911	Roasted Nuts and Peanut Butter Manufacturing	204	3			12	219
311919	Other Snack Food Manufacturing	321				14	335
311920	Coffee and Tea Manufacturing	657				10	667
311930	Flavoring Syrup and Concentrate Manufacturing	114	4			5	123
311941	Mayonnaise, Dressing, and Other Prepared Sauce Manufacturing	292				10	302
311942	Spice and Extract Manufacturing	343	12			15	370

NAICS	NAICS Description	No report, SBA Small	No report, Not SBA Small	AERR report, CAA Small	AERR report, SBA Small	AERR Report, SBA Not Small	Grand Total
311991	Perishable Prepared Food Manufacturing	702	12			26	740
311999	All Other Miscellaneous Food Manufacturing	607	10			17	634
312113	Ice Manufacturing	258					258
312111	Soft Drink Manufacturing	299	22				321
312112	Bottled Water Manufacturing	198	4				202
312120	Breweries	3,206					3,206
312130	Wineries	3,563	10				3,573
312140	Distilleries	751					751
312230	Tobacco Manufacturing	96		16	28		124
313110	Fiber, Yarn, and Thread Mills	183		9	40	14	237
313240	Knit Fabric Mills	137					137
313210	Broadwoven Fabric Mills	238			19	9	266
313220	Narrow Fabric Mills and Schiffli Machine Embroidery	171					171
313230	Nonwoven Fabric Mills	170	4			16	190
313310	Textile and Fabric Finishing Mills	518		72	119	8	645
313320	Fabric Coating Mills	81		37	57	3	141
314110	Carpet and Rug Mills	186			4	7	197
314994	Rope, Cordage, Twine, Tire Cord, and Tire Fabric Mills	116					116
314999	All Other Miscellaneous Textile Product Mills	2,406			44	9	2,459
315110	Hosiery and Sock Mills	108					108
315210	Cut and Sew Apparel Contractors	2,917					2,917
315220	Men’s and Boys’ Cut and Sew Apparel Manufacturing	430	5				435
315240	Women’s, Girls’, and Infants’ Cut and Sew Apparel Manufacturing	1,114					1,114
315280	Other Cut and Sew Apparel Manufacturing	416					416
315990	Apparel Accessories and Other Apparel Manufacturing	563				6	569
316110	Leather and Hide Tanning and Finishing	142		9	15		157
316210	Footwear Manufacturing	197				5	202

NAICS	NAICS Description	No report, SBA Small	No report, Not SBA Small	AERR report, CAA Small	AERR report, SBA Small	AERR Report, SBA Not Small	Grand Total
321113	Sawmills	1,369		974	1,130	33	2,532
321114	Wood Preservation	142		127	152	4	298
321211	Hardwood Veneer and Plywood Manufacturing	46		118	148	5	199
321212	Softwood Veneer and Plywood Manufacturing	7		16	32	4	43
321213	Engineered Wood Member (except Truss) Manufacturing	24		44	54	7	85
321214	Truss Manufacturing	597	4			10	611
321219	Reconstituted Wood Product Manufacturing	30		54	76	21	127
321911	Wood Window and Door Manufacturing	866			71	23	960
321912	Cut Stock, Resawing Lumber, and Planing	654			48	31	733
321918	Other Millwork (including Flooring)	1,369			66	23	1,458
321920	Wood Container and Pallet Manufacturing	2,220			113	7	2,340
321992	Prefabricated Wood Building Manufacturing	510			20	10	540
321991	Manufactured Home (Mobile Home) Manufacturing	130			19		149
321999	All Other Miscellaneous Wood Product Manufacturing	2,519			85	17	2,621
322110	Pulp Mills	5				5	10
322121	Paper (except Newsprint) Mills	16		16	57	20	93
322130	Paperboard Mills	9		11	31	19	59
322211	Corrugated and Solid Fiber Box Manufacturing	611			18	15	644
322212	Folding Paperboard Box Manufacturing	271				21	292
322219	Other Paperboard Container Manufacturing	156				13	169
322220	Paper Bag and Coated and Treated Paper Manufacturing	106		318	420	49	575
322230	Stationery Product Manufacturing	308			4	9	321

NAICS	NAICS Description	No report, SBA Small	No report, Not SBA Small	AERR report, CAA Small	AERR report, SBA Small	AERR Report, SBA Not Small	Grand Total
322291	Sanitary Paper Product Manufacturing	24		29	56	6	86
322299	All Other Converted Paper Product Manufacturing	332	8			18	358
323111	Commercial Printing (except Screen and Books)	16,346			488	134	16,968
323113	Commercial Screen Printing	5,101			28	25	5,154
323117	Books Printing	444				7	451
323120	Support Activities for Printing	1,257	17				1,274
324110	Petroleum Refineries	11			21	27	59
324121	Asphalt Paving Mixture and Block Manufacturing	303		36	128	41	472
324122	Asphalt Shingle and Coating Materials Manufacturing	83		10	21	8	112
324191	Petroleum Lubricating Oil and Grease Manufacturing	175		19	53	22	250
324199	All Other Petroleum and Coal Products Manufacturing	35			6	7	48
325110	Petrochemical Manufacturing			3	6	8	14
325120	Industrial Gas Manufacturing	37				11	48
325130	Synthetic Dye and Pigment Manufacturing	70		7	20	9	99
325180	Other Basic Inorganic Chemical Manufacturing	191		30	117	55	363
325193	Ethyl Alcohol Manufacturing	88			14	9	111
325194	Cyclic Crude, Intermediate, and Gum and Wood Chemical Manufacturing	24			4	9	37
325199	All Other Basic Organic Chemical Manufacturing	435			86	70	591
325211	Plastics Material and Resin Manufacturing	461		155	316	75	852
325212	Synthetic Rubber Manufacturing	92			21	17	130
325220	Artificial and Synthetic Fibers and Filaments Manufacturing	76			3	15	94
325311	Nitrogenous Fertilizer Manufacturing	140			6	7	153
325312	Phosphatic Fertilizer Manufacturing	14			11	6	31

NAICS	NAICS Description	No report, SBA Small	No report, Not SBA Small	AERR report, CAA Small	AERR report, SBA Small	AERR Report, SBA Not Small	Grand Total
325314	Fertilizer (Mixing Only) Manufacturing	329			15	12	356
325320	Pesticide and Other Agricultural Chemical Manufacturing	137		3	29	14	180
325411	Medicinal and Botanical Manufacturing	427	21				448
325412	Pharmaceutical Preparation Manufacturing	913			22	70	1,005
325413	In-Vitro Diagnostic Substance Manufacturing	169	19				188
325414	Biological Product (except Diagnostic) Manufacturing	219	39				258
325510	Paint and Coating Manufacturing	832		46	139	23	994
325520	Adhesive Manufacturing	359	4			40	403
325611	Soap and Other Detergent Manufacturing			545	593	18	611
325612	Polish and Other Sanitation Good Manufacturing	402				15	417
325613	Surface Active Agent Manufacturing			71	76	15	91
325620	Toilet Preparation Manufacturing	894			3	29	926
325910	Printing Ink Manufacturing	161	3			12	176
325920	Explosives Manufacturing	27	5			6	38
325991	Custom Compounding of Purchased Resins	299				28	327
325992	Photographic Film, Paper, Plate, and Chemical Manufacturing	170			3	9	182
325998	All Other Miscellaneous Chemical Product and Preparation Manufacturing	914			70	80	1,064
326111	Plastics Bag and Pouch Manufacturing	249	20				269
326112	Plastics Packaging Film and Sheet (including Laminated) Manufacturing	243			26	30	299

NAICS	NAICS Description	No report, SBA Small	No report, Not SBA Small	AERR report, CAA Small	AERR report, SBA Small	AERR Report, SBA Not Small	Grand Total
326113	Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing	305		13	83	40	428
326121	Unlaminated Plastics Profile Shape Manufacturing	230		14	61	31	322
326122	Plastics Pipe and Pipe Fitting Manufacturing	222			16	25	263
326130	Laminated Plastics Plate, Sheet (except Packaging), and Shape Manufacturing	167			12	23	202
326140	Polystyrene Foam Product Manufacturing	263			24	20	307
326150	Urethane and Other Foam Product (except Polystyrene) Manufacturing	380			22	40	442
326160	Plastics Bottle Manufacturing	169			14	7	190
326191	Plastics Plumbing Fixture Manufacturing	289			13	3	305
326199	All Other Plastics Product Manufacturing	4,059		177	905	223	5,187
326211	Tire Manufacturing (except Retreading)	43			18	8	69
326212	Tire Retreading	186		24	61	8	255
326220	Rubber and Plastics Hoses and Belting Manufacturing	172	5			11	188
326291	Rubber Product Manufacturing for Mechanical Use	319	4			21	344
326299	All Other Rubber Product Manufacturing	519	10			32	561
327110	Pottery, Ceramics, and Plumbing Fixture Manufacturing	476		57	75	9	560
327120	Clay Building Material and Refractories Manufacturing	178		118	173	23	374
327211	Flat Glass Manufacturing	54				10	64
327212	Other Pressed and Blown Glass and Glassware Manufacturing	319		36	53	11	383
327213	Glass Container Manufacturing	15				5	20

NAICS	NAICS Description	No report, SBA Small	No report, Not SBA Small	AERR report, CAA Small	AERR report, SBA Small	AERR Report, SBA Not Small	Grand Total
327215	Glass Product Manufacturing Made of Purchased Glass	936			15	32	983
327310	Cement Manufacturing	50		10	23	9	82
327320	Ready-Mix Concrete Manufacturing	1,095		790	957	46	2,098
327331	Concrete Block and Brick Manufacturing	208		149	199	15	422
327332	Concrete Pipe Manufacturing	82				4	86
327390	Other Concrete Product Manufacturing	1,375		31	150	34	1,559
327410	Lime Manufacturing	15			3	3	21
327420	Gypsum Product Manufacturing	101		4	4	8	113
327910	Abrasive Product Manufacturing	243				3	246
327991	Cut Stone and Stone Product Manufacturing	1,883			3	14	1,900
327992	Ground or Treated Mineral and Earth Manufacturing	108			16	23	147
327993	Mineral Wool Manufacturing	150			8	9	167
327999	All Other Miscellaneous Nonmetallic Mineral Product Manufacturing	239			6	26	271
331110	Iron and Steel Mills and Ferroalloy Manufacturing			259	341	26	367
331210	Iron and Steel Pipe and Tube Manufacturing from Purchased Steel			92	148	24	172
331221	Rolled Steel Shape Manufacturing	138			13	13	164
331222	Steel Wire Drawing	175			17	15	207
331313	Alumina Refining and Primary Aluminum Production	10			3	6	19
331314	Secondary Smelting and Alloying of Aluminum	44				7	51
331315	Aluminum Sheet, Plate, and Foil Manufacturing	37			5	5	47
331318	Other Aluminum Rolling, Drawing, and Extruding	163			24	20	207

NAICS	NAICS Description	No report, SBA Small	No report, Not SBA Small	AERR report, CAA Small	AERR report, SBA Small	AERR Report, SBA Not Small	Grand Total
331410	Nonferrous Metal (except Aluminum) Smelting and Refining	104				10	114
331420	Copper Rolling, Drawing, Extruding, and Alloying	128			18	16	162
331491	Nonferrous Metal (except Copper and Aluminum) Rolling, Drawing, and Extruding	202				18	220
331492	Secondary Smelting, Refining, and Alloying of Nonferrous Metal (except Copper and Aluminum)	163			6	9	178
331511	Iron Foundries	222			55	18	295
331512	Steel Investment Foundries	59			26	3	88
331513	Steel Foundries (except Investment)	149			28	5	182
331523	Nonferrous Metal Die-Casting Foundries	274			50	23	347
331524	Aluminum Foundries (except Die-Casting)	319			37	7	363
331529	Other Nonferrous Metal Foundries (except Die-Casting)	220			14	10	244
332114	Custom Roll Forming	309			4	31	344
332111	Iron and Steel Forging	284			13	21	318
332112	Nonferrous Forging	22			3	6	31
332117	Powder Metallurgy Part Manufacturing	101				6	107
332119	Metal Crown, Closure, and Other Metal Stamping (except Automotive)	473		646	776	37	1,286
332215	Metal Kitchen Cookware, Utensil, Cutlery, and Flatware (except Precious) Manufacturing	190	4				194
332216	Saw Blade and Handtool Manufacturing	838			9	13	860
332311	Prefabricated Metal Building and Component Manufacturing	511		53	116	12	639

NAICS	NAICS Description	No report, SBA Small	No report, Not SBA Small	AERR report, CAA Small	AERR report, SBA Small	AERR Report, SBA Not Small	Grand Total
332312	Fabricated Structural Metal Manufacturing	2,171		492	647	66	2,884
332313	Plate Work Manufacturing	1,042		254	343	19	1,404
332321	Metal Window and Door Manufacturing	600		138	244	31	875
332322	Sheet Metal Work Manufacturing	2,880		569	806	66	3,752
332323	Ornamental and Architectural Metal Work Manufacturing	2,148		86	147	24	2,319
332410	Power Boiler and Heat Exchanger Manufacturing	188			53	26	267
332420	Metal Tank (Heavy Gauge) Manufacturing	592			16	27	635
332431	Metal Can Manufacturing	36				12	48
332439	Other Metal Container Manufacturing	224			21	8	253
332510	Hardware Manufacturing	545				21	566
332613	Spring Manufacturing	295				7	302
332618	Other Fabricated Wire Product Manufacturing	652	4			21	677
332710	Machine Shops	17,731	98				17,829
332721	Precision Turned Product Manufacturing	2,099		1,291	1,506	65	3,670
332722	Bolt, Nut, Screw, Rivet, and Washer Manufacturing	344		209	278	28	650
332811	Metal Heat Treating	591			5	16	612
332812	Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers			2,167	2,281	57	2,338
332813	Electroplating, Plating, Polishing, Anodizing, and Coloring			1,912	2,035	31	2,066
332911	Industrial Valve Manufacturing	311			34	40	385
332912	Fluid Power Valve and Hose Fitting Manufacturing	233			37	24	294
332913	Plumbing Fixture Fitting and Trim Manufacturing	70			12	3	85

NAICS	NAICS Description	No report, SBA Small	No report, Not SBA Small	AERR report, CAA Small	AERR report, SBA Small	AERR Report, SBA Not Small	Grand Total
332919	Other Metal Valve and Pipe Fitting Manufacturing	176			11	23	210
332991	Ball and Roller Bearing Manufacturing	70			9	15	94
332992	Small Arms Ammunition Manufacturing	133				5	138
332993	Ammunition (except Small Arms) Manufacturing	28				5	33
332994	Small Arms, Ordnance, and Ordnance Accessories Manufacturing	364			10	4	378
332996	Fabricated Pipe and Pipe Fitting Manufacturing	577			30	35	642
332999	All Other Miscellaneous Fabricated Metal Product Manufacturing	3,242		53	225	47	3,514
333111	Farm Machinery and Equipment Manufacturing	625		318	408	20	1,053
333112	Lawn and Garden Tractor and Home Lawn and Garden Equipment Manufacturing	125				7	132
333120	Construction Machinery Manufacturing	309		216	311	29	649
333131	Mining Machinery and Equipment Manufacturing	202	8			10	220
333132	Oil and Gas Field Machinery and Equipment Manufacturing	472				28	500
333241	Food Product Machinery Manufacturing	416				10	426
333242	Semiconductor Machinery Manufacturing	125				8	133
333243	Sawmill, Woodworking, and Paper Machinery Manufacturing	323				6	329
333244	Printing Machinery and Equipment Manufacturing	253					253
333249	Other Industrial Machinery Manufacturing	1,742	8			61	1,811
333314	Optical Instrument and Lens Manufacturing	356	9			18	383

NAICS	NAICS Description	No report, SBA Small	No report, Not SBA Small	AERR report, CAA Small	AERR report, SBA Small	AERR Report, SBA Not Small	Grand Total
333316	Photographic and Photocopying Equipment Manufacturing	159				9	168
333318	Other Commercial and Service Industry Machinery Manufacturing	1,142			49	40	1,231
333413	Industrial and Commercial Fan and Blower and Air Purification Equipment Manufacturing	375	6			15	396
333414	Heating Equipment (except Warm Air Furnaces) Manufacturing	343				13	356
333415	Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing	654			6	45	705
333514	Special Die and Tool, Die Set, Jig, and Fixture Manufacturing	2,266	14			13	2,293
333515	Cutting Tool and Machine Tool Accessory Manufacturing	1,261	10			11	1,282
333517	Machine Tool Manufacturing	756	8			22	786
333519	Rolling Mill and Other Metalworking Machinery Manufacturing	369				13	382
333611	Turbine and Turbine Generator Set Units Manufacturing	84				20	104
333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing	177	3			11	191
333613	Mechanical Power Transmission Equipment Manufacturing	172	21				193
333618	Other Engine Equipment Manufacturing	231				22	253
333912	Air and Gas Compressor Manufacturing	235				22	257

NAICS	NAICS Description	No report, SBA Small	No report, Not SBA Small	AERR report, CAA Small	AERR report, SBA Small	AERR Report, SBA Not Small	Grand Total
333914	Measuring, Dispensing, and Other Pumping Equipment Manufacturing	416	7			34	457
333921	Elevator and Moving Stairway Manufacturing	157				6	163
333922	Conveyor and Conveying Equipment Manufacturing	689	9			18	716
333923	Overhead Traveling Crane, Hoist, and Monorail System Manufacturing	250				8	258
333924	Industrial Truck, Tractor, Trailer, and Stacker Machinery Manufacturing	285	5			16	306
333991	Power-Driven Handtool Manufacturing	104				8	112
333992	Welding and Soldering Equipment Manufacturing	326				8	334
333993	Packaging Machinery Manufacturing	445	6			17	468
333994	Industrial Process Furnace and Oven Manufacturing	305				6	311
333995	Fluid Power Cylinder and Actuator Manufacturing	222	6			21	249
333996	Fluid Power Pump and Motor Manufacturing	111				10	121
333997	Scale and Balance Manufacturing	62					62
333999	All Other Miscellaneous General Purpose Machinery Manufacturing	1,480	14			64	1,558
334111	Electronic Computer Manufacturing	281				12	293
334112	Computer Storage Device Manufacturing	61	5				66
334118	Computer Terminal and Other Computer Peripheral Equipment Manufacturing	509				25	534
334210	Telephone Apparatus Manufacturing	181	8				189

NAICS	NAICS Description	No report, SBA Small	No report, Not SBA Small	AERR report, CAA Small	AERR report, SBA Small	AERR Report, SBA Not Small	Grand Total
334220	Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing	613	41				654
334290	Other Communications Equipment Manufacturing	303	11				314
334310	Audio and Video Equipment Manufacturing	451				7	458
334412	Bare Printed Circuit Board Manufacturing	430	10				440
334413	Semiconductor and Related Device Manufacturing	667			21	45	733
334416	Capacitor, Resistor, Coil, Transformer, and Other Inductor Manufacturing	316	14				330
334417	Electronic Connector Manufacturing	139	14				153
334418	Printed Circuit Assembly (Electronic Assembly) Manufacturing	714	39				753
334419	Other Electronic Component Manufacturing	1,071	60				1,131
334517	Irradiation Apparatus Manufacturing	112	11				123
334510	Electromedical and Electrotherapeutic Apparatus Manufacturing	552		46	152	51	755
334511	Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing	356			24	41	421
334512	Automatic Environmental Control Manufacturing for Residential, Commercial, and Appliance Use	233	20				253
334513	Instruments and Related Products Manufacturing for Measuring, Displaying, and Controlling Industrial Process Variables	712	38				750

NAICS	NAICS Description	No report, SBA Small	No report, Not SBA Small	AERR report, CAA Small	AERR report, SBA Small	AERR Report, SBA Not Small	Grand Total
334514	Totalizing Fluid Meter and Counting Device Manufacturing	153	14				167
334515	Instrument Manufacturing for Measuring and Testing Electricity and Electrical Signals	669	39				708
334516	Analytical Laboratory Instrument Manufacturing	569	37				606
334519	Other Measuring and Controlling Device Manufacturing	776	50				826
334614	Software and Other Prerecorded Compact Disc, Tape, and Record Reproducing	372	5				377
335110	Electric Lamp Bulb and Part Manufacturing	48	3				51
335121	Residential Electric Lighting Fixture Manufacturing	247					247
335122	Commercial, Industrial, and Institutional Electric Lighting Fixture Manufacturing	409	10				419
335210	Small Electrical Appliance Manufacturing	110	7				117
335220	Major Household Appliance Manufacturing	102			5	10	117
335311	Power, Distribution, and Specialty Transformer Manufacturing	195				13	208
335312	Motor and Generator Manufacturing	346				25	371
335313	Switchgear and Switchboard Apparatus Manufacturing	391				16	407
335314	Relay and Industrial Control Manufacturing	740	55				795
335911	Storage Battery Manufacturing	105				11	116
335912	Primary Battery Manufacturing	41				3	44

NAICS	NAICS Description	No report, SBA Small	No report, Not SBA Small	AERR report, CAA Small	AERR report, SBA Small	AERR Report, SBA Not Small	Grand Total
335929	Other Communication and Energy Wire Manufacturing	157				18	175
335931	Current-Carrying Wiring Device Manufacturing	324	9			23	356
335932	Noncurrent-Carrying Wiring Device Manufacturing	86			8	12	106
335991	Carbon and Graphite Product Manufacturing	100			9	3	112
335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing	735	17			29	781
336111	Automobile Manufacturing	135		3	3	11	149
336112	Light Truck and Utility Vehicle Manufacturing	26				11	37
336120	Heavy Duty Truck Manufacturing	41			10	7	58
336211	Motor Vehicle Body Manufacturing	518		18	90	22	630
336212	Truck Trailer Manufacturing	363			3	10	376
336213	Motor Home Manufacturing	29				3	32
336214	Travel Trailer and Camper Manufacturing	577			8	11	596
336310	Motor Vehicle Gasoline Engine and Engine Parts Manufacturing	670	34				704
336320	Motor Vehicle Electrical and Electronic Equipment Manufacturing	524	8			32	564
336330	Motor Vehicle Steering and Suspension Components (except Spring) Manufacturing	196	20				216
336340	Motor Vehicle Brake System Manufacturing	117	15				132
336350	Motor Vehicle Transmission and Power Train Parts Manufacturing	351	37				388
336360	Motor Vehicle Seating and Interior Trim Manufacturing	279	27				306
336370	Motor Vehicle Metal Stamping	562	35				597

NAICS	NAICS Description	No report, SBA Small	No report, Not SBA Small	AERR report, CAA Small	AERR report, SBA Small	AERR Report, SBA Not Small	Grand Total
336390	Other Motor Vehicle Parts Manufacturing	1,038			155	75	1,268
336411	Aircraft Manufacturing			198	235	24	259
336412	Aircraft Engine and Engine Parts Manufacturing	275			13	29	317
336413	Other Aircraft Parts and Auxiliary Equipment Manufacturing	669			31	48	748
336414	Guided Missile and Space Vehicle Manufacturing					7	7
336415	Guided Missile and Space Vehicle Propulsion Unit and Propulsion Unit Parts Manufacturing	3				6	9
336419	Other Guided Missile and Space Vehicle Parts and Auxiliary Equipment Manufacturing	15				5	20
336510	Railroad Rolling Stock Manufacturing	97		10	33	14	144
336611	Ship Building and Repairing	442			40	17	499
336612	Boat Building	782			42	8	832
336991	Motorcycle, Bicycle, and Parts Manufacturing	413					413
336992	Military Armored Vehicle, Tank, and Tank Component Manufacturing	14	6				20
336999	All Other Transportation Equipment Manufacturing	375				5	380
337110	Wood Kitchen Cabinet and Countertop Manufacturing	5,883			8	14	5,905
337121	Upholstered Household Furniture Manufacturing	931			18	9	958
337122	Nonupholstered Wood Household Furniture Manufacturing	2,011				6	2,017
337124	Metal Household Furniture Manufacturing	251					251
337125	Household Furniture (except Wood and Metal) Manufacturing	145					145

NAICS	NAICS Description	No report, SBA Small	No report, Not SBA Small	AERR report, CAA Small	AERR report, SBA Small	AERR Report, SBA Not Small	Grand Total
337127	Institutional Furniture Manufacturing	562				9	571
337211	Wood Office Furniture Manufacturing	293				11	304
337212	Custom Architectural Woodwork and Millwork Manufacturing	2,041	3			7	2,051
337214	Office Furniture (except Wood) Manufacturing	175				7	182
337215	Showcase, Partition, Shelving, and Locker Manufacturing	874	15			12	901
339116	Dental Laboratories	5,622	3			4	5,629
339112	Surgical and Medical Instrument Manufacturing			874	1,002	61	1,063
339113	Surgical Appliance and Supplies Manufacturing			1,456	1,598	53	1,651
339114	Dental Equipment and Supplies Manufacturing	541	3			4	548
339115	Ophthalmic Goods Manufacturing	314	13				327
339994	Broom, Brush, and Mop Manufacturing	152				6	158
339910	Jewelry and Silverware Manufacturing	1,951	4				1,955
339920	Sporting and Athletic Goods Manufacturing	1,569	6			6	1,581
339930	Doll, Toy, and Game Manufacturing	499					499
339940	Office Supplies (except Paper) Manufacturing	411	7				418
339950	Sign Manufacturing	5,404		47	178	15	5,597
339991	Gasket, Packing, and Sealing Device Manufacturing	456	12			20	488
339992	Musical Instrument Manufacturing	578					578
339993	Fastener, Button, Needle, and Pin Manufacturing	84					84
339995	Burial Casket Manufacturing	70				3	73

NAICS	NAICS Description	No report, SBA Small	No report, Not SBA Small	AERR report, CAA Small	AERR report, SBA Small	AERR Report, SBA Not Small	Grand Total
339999	All Other Miscellaneous Manufacturing	5,719	3			12	5,734
424710	Petroleum Bulk Stations and Terminals	1,755		191	400	179	2,334
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	1,505		106	213	139	1,857
481111	Scheduled Passenger Air Transportation	275				26	301
481211	Nonscheduled Chartered Passenger Air Transportation	1,275	47				1,322
481219	Other Nonscheduled Air Transportation	489		13		28	517
486110	Pipeline Transportation of Crude Oil	45				23	68
486210	Pipeline Transportation of Natural Gas	73		10	38	55	166
486910	Pipeline Transportation of Refined Petroleum Products	30			7	24	61
486990	All Other Pipeline Transportation			9		9	9
488310	Port and Harbor Operations	269		11	12	47	328
488320	Marine Cargo Handling	336	55				391
488390	Other Support Activities for Water Transportation	733		32	21	31	785
493110	General Warehousing and Storage	5,020		1,375	1,461	1,564	8,045
493120	Refrigerated Warehousing and Storage	600		148	172	120	892
493130	Farm Product Warehousing and Storage	350		154	65	96	511
493190	Other Warehousing and Storage	1,163		310	388	404	1,955
541713	Research and Development in Nanotechnology	2,580	176				2,756
541714	Research and Development in Biotechnology (except Nanobiotechnology)	3,045	64				3,109

NAICS	NAICS Description	No report, SBA Small	No report, Not SBA Small	AERR report, CAA Small	AERR report, SBA Small	AERR Report, SBA Not Small	Grand Total
541715	Research and Development in the Physical, Engineering, and Life Sciences (except Nanotechnology and Biotechnology)	7,629	390				8,019
541720	Research and Development in the Social Sciences and Humanities	1,842	67				1,909
541990	All Other Professional, Scientific, and Technical Services	17,176		87		215	17,391
561910	Packaging and Labeling Services			1,543	1,630	121	1,751
562211	Hazardous Waste Treatment and Disposal	382		56	73	52	507
562212	Solid Waste Landfill	642		93	105	33	780
562213	Solid Waste Combustors and Incinerators	7		11	11	8	26
562219	Other Nonhazardous Waste Treatment and Disposal	208		32	21	14	243
562910	Remediation Services	3,844		440	464	172	4,480
562920	Materials Recovery Facilities	980		223	201	93	1,274
562991	Septic Tank and Related Services	3,478	36	3		7	3,521
562998	All Other Miscellaneous Waste Management Services	1,137	8	4		22	1,167
611310	Colleges, Universities, and Professional Schools	1,632		176	1,210	913	3,755
622110	General Medical and Surgical Hospitals	1,156		175	2,108	1,430	4,694
622310	Specialty (except Psychiatric and Substance Abuse) Hospitals	80		29	254	200	534
811121	Automotive Body, Paint, and Interior Repair and Maintenance	33,254				462	33,716
812210	Funeral Homes and Funeral Services	11,268	16	3		16	11,300
812220	Cemeteries and Crematories	3,847		11	3	34	3,884
812332	Industrial Launderers	223		110	135	20	378
	Totals	**340,373**	**2,294**	**27,307**	**39,413**	**12,686**	**394,766**

5 BENEFITS ANALYSIS AND BENEFIT-COST COMPARISON

In this chapter, we provide the benefits analysis for this proposed rule. While methodological limitations prevented the EPA from monetizing the potential human health and environmental benefits given that no changes in emissions or other environmental effects can currently be estimated that may be associated with the greater availability of emissions data, and in particular HAP emissions, resulting from the provisions of the proposed AERR if finalized, we present a qualitative discussion of benefits that accrue to different stakeholders, including to the public, and to the industries and investors.

We also present a general comparison of the benefits and costs of this proposed regulation. As explained in the previous chapters, all costs and benefits outlined in this RIA are estimated as the change from the baseline, which reflects the requirements in the existing AERR. EPA is considering this proposal to fill gaps in the existing available emissions inventory data, most notably for HAPs, prescribed burning, and small generation units related to High Energy Demand Day (HEDD) events.

5.1 Synopsis of Benefits Analysis

The benefits of the proposed revisions to AERR of collecting additional criteria air pollutant, air toxics, controls, and sub-facility data include improved understanding, awareness, and decision making related to the provision and distribution of information. The information shared with EPA, and incorporated into the NEI, could enable the public to make more informed decisions on where to live and work, strengthen the public's ability to adequately protect themselves from potential harm from criteria air pollutants and air toxics, and provide a greater capacity for meaningful involvement in the development and implementation of local pollution management policies.

The proposed amendments in this action would ensure that communities have the data needed to understand significant source of air pollution that may be impacting them and address existing environmental justice issues. Additional benefits to the public include building public confidence through clear and transparent emission measures and reports and the ability of the public to make facilities accountable for their emissions.

The revised AERR will also enable a more comprehensive inventory of air emissions, thereby ensuring that the EPA and other regulators such as states have sufficient information to identify and solve air quality and exposure problems and reducing the potential for policy bias due to non-reporting by certain sectors.

Benefits to industry include disclosure that provides firms with incentives to reduce emissions voluntarily, and provides emissions data to service industries, such as insurance and financial markets. Availability of emissions information to the public, consumers, investors, corporations, and government regulators provides a better basis for future policy analysis, and this benefits society as a whole. Accurate and transparent information is necessary for the implementation of efficient approaches that meet environmental goals with lower costs as compared to other approaches.

5.2 Benefits of a more comprehensive air emissions reporting program

The revisions to the AERR that increase air emissions reporting and standardize data reporting through proposing that operators/owners use the Combined Air Emissions Reporting System (CAERS) will greatly increase the comprehensiveness and data quality of the database. Such a database would yield benefits to society in myriad ways by lowering the information costs associated with determining emissions. Both the Organization for Economic Co-Operation and Development (OECD) (2005)[29] and (2023)[30] and the EPA (2003)[31] have documented ways in which the public, industry, government, investment community and academic community have utilized pollutant release and transfer registers (PRTRs) to accomplish varied tasks such as toxicity weighting of pollutants, offering education and research on pollutants of interests, and

[29] Organization for Economic Co-Operation and Development (OECD). 2005. "Uses of Pollutant Release and Transfer Register Data and Tools for Their Presentation—A Reference Manual." Series on Pollutant Release and Transfer Registers No. 7. http://www.olis.oecd.org/olis/2005doc.nsf/LinkTo/NT00000AA2/$FILE/JT00177567.PDF.

[30] Organization for Economic Co-Operation and Development (OECD). 2023. "Uses of PRTR Data and Tools for Their Presentation." Series on Pollutant Release and Transfer Registers No. 27. https://one.oecd.org/document/ENV/CBC/MONO(2023)9/en/pdf.

[31] U.S. Environmental Protection Agency (EPA). 2003. How Are the Toxics Release Inventory Data Used?—Government, Business, Academic and Citizen Uses (EPA-2600-R-002 004). Washington, DC: U.S. Environmental Protection Agency. http://www.epa.gov/tri/guide_docs/pdf/2003/2003_datausepaper.pdf.

building partnerships between regulatory stakeholders that would be costly or unattainable without such available information.

5.3 Benefits to the Public

5.3.1 Policy Development

One of the greatest benefits of additional reporting of criteria air pollutants and air toxics emissions to the government would be realized in developing future air quality policies. These revisions would create a foundation of reliable baseline emission estimates for the purpose of informing future policies and avoiding unexpected consequences of those policies. Better data supports numerous improved policy outcomes as described in this section.

Since the prior AERR promulgation, the EPA has recognized a gap in the current AERR approach to collect CAP and HAP emissions from all relevant facilities. The additional emissions data will improve air quality modeling, which will feed into policy development and trends analysis. For example, this action also proposes new point source reporting requirements for states and owners/operators of facilities within Indian country to report daily activity data (i.e., fuel use or heat input) for certain small generating units operated to help meet electricity needs on high electricity demand days (HEDDs). The emissions from the small generating units can be significant when deployed synchronously by many facilities and can contribute to ozone formation. However, the current AERR only requires annual emissions values or, if these small generating units are not located at a point source, no emissions reports, so modeling how the emissions from small generating units affects ozone formation is challenging. Thus, this AERR provision if finalized will improve the emissions data available to support rulemakings such as Tribal Federal Implementation Plans (FIPs), which can be designed to reduce ozone precursors such as VOC and other rulemakings that could impact emissions from sources within Indian country. One example of such a Tribal FIP is the recently promulgated Uintah FIP, which will yield an estimated $120 million in annual benefits (2016 dollars) from VOC emission reductions to the Uintah and Ouray Indian Reservation in Utah and also reduce HAP emissions as an ancillary benefit.[32]

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[32] U.S. EPA. FIP for Managing Emissions from Oil and Natural Gas Sources on Indian Country Lands Within the Uintah and Ouray Indian Reservation in Utah. https://www.regulations.gov/document?D=EPA-R08-OAR-2015-0709-0001. November 8, 2022.

Future benefit analysis for regulations specific to NAAQS implementation can include better estimates of the ancillary benefits of HAP reductions. For example, the RIA accompanying the revision of an ambient criteria pollutant standard, such as the RIA for the recently proposed $PM_{2.5}$ NAAQS (EPA, 2022) and revisions to national mobile source standards can describe ancillary benefits of HAP reductions, even when those regulations are being put in place to reduce VOC or $PM_{2.5}$ emissions. A complete and integrated HAP emissions inventory would enhance EPA's ability to better estimate the ancillary benefits of HAP reductions, including the ability to monetize the benefits of such reductions.

The HAP emissions data also can be useful in further refining chemical speciation to better meet the Agency's responsibilities under CAA Part D that require air quality modeling using emissions data to support NAAQS implementation. VOC chemical speciation is a critical part of such modeling and can be informed by emissions of HAP VOC. EPA's Office of Air and Radiation (OAR) prioritizes chemicals to nominate for toxicity assessment under EPA's Integrated Risk_Information System (IRIS) program in part based on their potential for exposure and hazard. HAP emissions data are used to support these prioritization efforts.

Lastly, to ensure that the EPA had sufficient emissions data to complete its work, some of these regulatory actions have needed extensive data collection efforts. Such one-time data collections require affected entities to take additional time and incur additional costs due to the hurried, non-routine, nature of the requests. Complete HAP reporting would lessen the need for such data collections, thus reducing the marginal burden that would be in addition to ongoing costs being incurred and timing difficulties on affected entities.

5.3.2 Environmental Justice

Availability of increased information on HAPs emissions can also be used to advance the Agency's environmental justice goals by increasing the understanding the potential impacts of air toxics emissions from regulated facilities on minority and disadvantaged communities who have been historically burdened by hidden and undisclosed pollution. The required reporting of HAP emissions data will increase the ability for EPA to accurately conduct technology reviews pursuant to CAA Section 112(d)(6), and risk reviews under CAA Section 112(f)(2). These provisions are additionally impacted by Executive Order 12898, which overlays environmental justice considerations for the EPA to assess as part of such work. Even for owners/operators who also must report emissions to the TRI program, this proposed action would require additional sub-facility details necessary for air quality modeling that, in turn, would allow the EPA and other authorities such as states to assess local-scale community impacts and devise solutions for high-risk areas.

Additionally, the proposed revisions will overcome an explicit data gap in the current AERR; the EPA is proposing that facilities located within Indian country for which the relevant tribe does not have Treatment as a State (TAS) status or approval to submit emissions through a Tribal Implementation Plan (TIP), and which are outside the geographic scope of the relevant state's implementation planning authority, will report directly to EPA. By addressing a CAP emissions data gap, where currently exempt facilities located within Indian country do not have inventory emission sources, this will increase the data available on emissions in Indian country. This will increase the ability to conduct and increase the accuracy of regional and national analyses to support the implementation of the Regional Haze Program and NAAQS for ozone and $PM_{2.5}$, and other analyses. This will have localized health benefits for residents living in and near Indian country.

EPA has also conducted a proximity analysis assessing the demographics of residents within 5 km of facilities subject to the proposed revisions.[33] When comparing the demographics of nearby communities to the national average, the analysis found that a higher percentage of minority residents as compared to the nationwide average resided near affected facilities (46 percent of residents near all facilities are minority vs. 40 percent are nationwide), and that a higher percentage of residents near all affected facilities are below the poverty line as compared to the nationwide average (15 percent of residents near all facilities are below the poverty line vs. 13 percent are nationwide).

5.3.3 Builds Public Confidence and Trust

The revisions to AERR will increase transparency of facility emissions data. A qualitative study in the United Kingdom compared similar communities surrounding chemical complexes with and without right-to-know laws and found that the community with the right-to

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[33] U.S. EPA, OAQPS/HEID/ATAG. "Analysis of Demographic Factors for Populations Living Near Facilities Subject to the Proposed Revisions to the Air Emissions Reporting Requirements." October 10, 2022. Prepared by SC&A, Inc. Chapel Hill, NC.

know law and corresponding available data on toxic emissions experienced increased levels of trust towards government and industry to ensure the environmental protection and public health (Gouldson, 2004).[34]

5.3.4 Direct Actions

EPA proposes amendments that would ensure HAP emissions data are collected consistently for all communities across the country. Currently, the availability and detail of HAP emissions data varies across states, which creates a situation where some communities have incomplete or less accurate information than others, while still facing the same or greater potential risks. Transparent, public data on emissions allows for accountability of polluters to the public stakeholders who bear the cost of the pollution. Citizens, community groups and labor unions have made use of data from PRTRs to negotiate directly with polluters to lower emissions, circumventing greater government regulation. There are several examples in the literature of environmental organizations and community groups negotiating with facilities directly based on their publicly available pollution data (EPA, 2003).[35] The additional air emissions data collected under the proposed revisions would allow groups interested in pressuring industry to reduce their emissions to negotiate with the top emitters.

The air emissions data are used to respond to numerous requests for reports on emission sources. Typically, the data are provided freely through EPA's website. In some cases, specific requests of data not available on EPA's website are also made by email and rarely, under the Freedom of Information Act. Requests come from the general public, teachers, contractors and consultants; Congress; the press; domestic and international universities; and others involved in research of many types. The inclusion of these additional data into the NEI will increase the accessibility of such data to all parties with an interest in it. This is beneficial to the public because research has indicated that the way environmental data are collected and disseminated by the government matters. For instance, Bae, et al. (2010) found that public provision of raw Toxic Release Inventory (TRI) data reduced reported emissions but does not necessarily translate

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[34] Gouldson, A. 2004. "Risk, Regulation and the Right to Know: Exploring the Impacts of Access to Information on the Governance of Environmental Risk." Sustainable Development 12(3):136–149.

[35] U.S. Environmental Protection Agency (EPA). 2003. How Are the Toxics Release Inventory Data Used?—Government, Business, Academic and Citizen Uses (EPA-2600-R-002-004). Washington, DC: U.S. Environmental Protection Agency. http://www.epa.gov/tri/guide_docs/pdf/2003/2003_datausepaper.pdf.

into reduced health risks.[36] But, as also found by Bae, et al. (2010), the processing of those data by states to aid in access and interpretation did lead to significant reductions in health risks.

5.3.5 Voluntary Programs

Evaluations of several major voluntary programs have noted that need for a strong reporting mechanism is necessary (Worrell and Price, 2001).[37] A transparent reporting system increases the credibility of the voluntary program and the reductions attributed to the program. A standardized reporting system also allows program managers to readjust the programs strategy to meet the evolving needs of a program.

5.4 Benefits to Industry and Investors

5.4.1 Public Relations

One potential benefit of a more comprehensive and consistent approach to air emissions monitoring is the value of having independent, verifiable data to present to the public to demonstrate appropriate environmental stewardship by industrial sources. For example, General Motors issues its Corporate Responsibility and Sustainability Report, which makes use of TRI data and the Canadian National Pollutant Release Inventory to support its environmental achievements. Using data from a verified, standard methodology as under AERR gives the facilities credibility to the public when claiming environmental improvements. Hamilton (1995)[38] and Konar and Cohen (1997)[39] are two examples of empirical studies that have investigated how the release of TRI data has affected firm behavior and stock market valuation.

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[36] Bae, H., P. Wilcoxen, and D. Popp, 2010. Information disclosure policy: Do state data processing efforts help more than the information disclosure itself? *Journal of Policy Analysis and Management, 29(1)*, pp. 163-182.

[37] Worrell, E., and L. Price, 2001. Barriers and Opportunities: A Review of Selected Successful Energy Efficiency Programs. Proceedings from 2001 Industrial Energy Technology Conference. Lawrence Berkley National Laboratory Working Paper No. LBNL-47908. http://industrial-energy.lbl.gov/node/198.

[38] Hamilton, J. 1995. "Pollution as News: Media and Stock Market Reactions to the Toxics Release Inventory Data." Journal of Environmental Economics and Management, 28: 98–113.

[39] Konar, S., and M. Cohen. 1997. "Information as Regulation: The Effect of Community Right-to-Know Laws on Toxic Emissions." Journal of Environmental Economics and Management, 32: 109–124.

Hamilton (1995) finds a stock price return of -0.03 percent due to TRI release.[40] In particular, according to this study, firms that experienced the largest drop in their stock prices also reacted by reducing their reported emissions most in subsequent years. Thus, this finding suggests that firms do use these reported emissions as one input to increase or at least maintain their value.

5.4.2 Standardization

Once industrial facilities invest in the institutional knowledge and systems to report additional emissions as proposed in the revisions, the cost of monitoring CAP and HAP emissions is expected to fall over time and the accuracy of the accounting should improve. A standardized and more comprehensive reporting program, which this proposal is meant to support, will also allow for facilities to better benchmark themselves against similar facilities to understand better their relative standing within their industry.

Standardized, consistent, information also allows EPA to develop improved quality assurance processes. When the information collected is based on a set of requirements, the EPA can check if those requirements are being met. For example, EPA has long advocated for use of source test information to estimate emissions as a higher quality approach over emission factors.[41] With this proposed approach, using such information when available would become a requirement, but owners/operators would have the option not to use source test data when it is not appropriate to do so and explain why such data was not used. The EPA intends to implement reporting through CAERS to require the source test data be used unless such a reason is given. Without the standardization this proposal would provide, the EPA does not have an efficient or effective way to help ensure sources would use source test data when it is available.

As described in Section IV.A.1 of the preamble to this proposed rule, having complete, predictable, and routine HAP reporting would significantly lessen the need for EPA to conduct one-time, intermittent, and non-uniform data collection efforts to gather HAP emissions data and

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[40] Hamilton, J. 1995. "Pollution as News: Media and Stock Market Reactions to the Toxics Release Inventory Data." Journal of Environmental Economics and Management, 28: 98–113.

[41] AP-42 is the primary compilation of emissions factors by US EPA since 1972. For more information on AP-42, please refer to https://www.epa.gov/air-emissions-factors-and-quantification/ap-42-compilation-air-emissions-factors#:~:text=AP%2D42%2C%20Compilation%20of%20Air,200%20air%20pollution%20source%20categories.

facility attribute information. When a standardized data reporting requirement is known in advance, it provides respondents the opportunity to plan ahead to more efficiently use their resources to obtain the information to provide in an emissions report. This advantage of predictability does not exist with one-time collections where each new collection is different from the last. While the initial burden associated with the requirements proposed here may appear relatively high, the EPA predicts that the AERR approach will be more efficient in the long run than the present approach.

5.4.3 Potential Cost Savings and Burden Reduction

The proposed provision of information could also lead to behavioral changes that could result in reduced costs and additional benefits. In particular, voluntary initiatives by facilities to review emissions control management practices and facility processes, set goals for reductions in emissions, and institute "good neighbor" policies may result from provision of the proposed information. Potential changes in facility operations, such as reductions in the releases, could yield health and environmental benefits. While behavioral changes from the provision of information may result from the rule and are, in fact, one goal of these types of policies, they are not mandated by the proposed action. The reporting of such emission data, and its public disclosure, may provide social benefits in itself since this data disclosure may incentivize emission reductions. For example, disclosure of emissions as part of the Greenhouse Gas Emissions Reporting Program (GHGRP) is shown to have led to a 7 percent reduction in GHG emissions from a sample of power plants.[42]

Lastly, in the revisions to AERR, the EPA proposes to require owners/operators to report to the EPA using the Combined Air Emissions Reporting System (CAERS). CAERS can offset and even reduce total burden by providing owners/operators a way to report to the National Emissions Inventory (NEI), Toxics Release Inventory (TRI), as well as state programs. With CAERS, the air emissions data reported to EPA under this proposal can also be used, via CAERS and with little additional effort by the reporter, to also meet TRI requirements. Within TRI, an option is available to import data from CAERS and use that to report air emissions, rather than

[42] Lavender Yang, Nicholas Z. Muller, and Pierre Jinghong Liang. "The Real Effects of Mandatory CSR Disclosure on Emissions: Evidence from the Greenhouse Gas Reporting Program." NBER Working Paper 28984. July 2021. Available on the Internet at https://www.nber.org/system/files/working_papers/w28984/w28984.pdf.

having to re-enter the data into TRI. This reduces burden as compared to a facility having to report separately to NEI and TRI.

Reductions in total burden, and particularly in operating and maintenance burden, to owners/operators are shown in Table 3-8 of this RIA.

5.4.4 Data Valuable to Service Industries

In addition to the benefits for the industrial facilities being monitored, the data can be valuable to companies doing business with air pollutants-emitting firms. Firms have sold pollution prevention technologies to customers found using TRI data (Pew, 2008).[43] In addition, insurance companies may find these data valuable in assessing risk. In general, improved information lowers search and transaction costs for providers of mitigation products and services.

5.4.5 Data Valuable to Industry Stakeholders

The EPA additionally proposes to require owners/operators of facilities to report the results of stack tests and performance evaluations electronically to the CEDRI system. The EPA needs these data to support its continuing effort to develop and improve emissions factors. Many stakeholders including states and industry have previously asked the EPA to improve its emissions factors. The collection data from stack tests and performance valuations through this regulatory effort would enable EPA to fulfill these requests.

5.5 Reducing Uncertainty: Benefits to all Stakeholders

Reducing uncertainty in air pollutant emission estimates is an underlying benefit that increases benefits to all stakeholders. Policy development, direct action by the public and consumers, standardization, and reliable data for firms, shareholders and service industries to use in decision-making all require certainty in emission estimates in order to make environmentally sound and cost-effective decisions. Increased certainty in the emission estimates facilitates the

[43] Pew Center on Global Climate Change. 2008. "Greenhouse Gas Reporting and Disclosure: Key Elements of a Perspective U.S. Program." Innovative Policy Solutions to Climate Change. In Brief, No. 3. Arlington, VA: Pew Center on Global Climate Change. http://www.pewclimate.org/docUploads/policy_inbrief_ghg.pdf.

comparison across reduction options, companies and sectors where different data or approaches have been used.

More frequent reporting of emissions can be consistent with increased certainty of such data to regulatory stakeholders. Using more current information reduces the uncertainties associated with changes in emissions from one year to the next. EPA's work with stakeholders has provided insights into the challenges owners/operators face when EPA includes outdated data in its NEI releases. For example, in the recent AirToxScreen releases for 2017 through 2019, some commercial sterilizer facilities had either ceased operating or installed additional controls to reduce ethylene oxide emissions. During review of these data prior to release, states and EPA regional office representatives heard from these facilities and informed EPA that they wanted the agency to use the more current data because emissions were lower. Because these changes in operations had not occurred in the historical years, rather than adjust the modeled concentrations and risks in these historical years based on more current information, EPA added notices on the website for each of these facilities to indicate when operations ceased or when controls had been installed that would reduce emissions after the year of the AirToxScreen release. Similarly, when EPA used data that was several years old in support of regulatory decisions, in cases when one-time information collections could not be accomplished due to timing or other constraints, industry has commented about EPA's flawed data and insisted that more current data be used. With an annual approach for reporting emissions, the EPA could best reflect emissions controls and lower emissions in the NEI data, AirToxScreen, and regulatory assessments.

In light of what has been presented in this RIA, the EPA expects that implementation of this rule should yield benefits related to the additional emissions data and standardization of data formats, among other benefits that are included in this RIA, though we are not able to present monetized benefits results given lack of available valuation data to compare to the costs of rule compliance. Given that we are unable to present monetized benefits of the proposal to compare to the estimated costs, we conclude that the monetized net benefits are negative. However, as explained throughout this RIA, EPA estimates substantial non-quantified and non-monetized benefits that justify the proposed regulatory action.

5.6 Uncertainties and Limitations

Throughout the RIA, we considered a number of sources of uncertainty, both quantitatively and qualitatively, regarding the benefits, and costs of the proposed rule. We summarize the key elements of our discussions of uncertainty here:

- **Projection methods and assumptions**: Over time, more facilities who are required to meet the provisions of the proposed AERR are newly established or modified in each year, and to the extent the facilities remain in operation in future years, the total number of facilities subject to the proposed rule could change. We assume 100 percent compliance with the rule, starting from when the sources become affected. If sources do not comply with the rule, at all or as written, the cost impacts may be overestimated and the benefits may not be as great as anticipated.

- **Years of analysis**: The years of the cost analysis are 2024, to represent the first-year sources are affected by this rule, through 2033, to represent impacts of the rule over a longer period after promulgation, as discussed in Chapter 3. Extending the analysis beyond 2033 would introduce substantial and increasing uncertainties in projected impacts of the proposed rule.

- **Compliance costs**: While there are no new monitoring or source testing requirements in the proposed AERR as mentioned in Chapter 1 of this RIA, there may be an opportunity cost associated with the installation and use of any equipment (for purposes of collecting emissions data as necessary for compliance with this proposal) that is not reflected in the compliance costs included earlier in Chapter 3. If environmental investment displaces investment in productive capital, the difference between the rate of return on the marginal investment (which is discretionary in nature) displaced by the mandatory environmental investment is a measure of the opportunity cost of the environmental requirement to the regulated entity. This is a particularly relevant consideration for those companies and private sector entities that would incur costs as part of compliance with the proposed AERR. To the extent that any opportunity costs are not added to the compliance costs, the compliance costs presented above for this proposed rule may be underestimated.

As part of estimating the compliance costs, EPA recognizes that many SLTs subcontract their point source emissions collection systems to a third party, while EPA's cost estimation approach assumes the system is operated and maintained using in-house resources. However, EPA assumes that the costs of in-house systems are higher than outsourcing costs because SLTs are unlikely to outsource such a system unless costs would be reduced. Since EPA's estimates for data system operations and maintenance (included in Chapter 3) assume in-house systems only, we believe that we have not only included outsourcing costs but may have overestimated such costs in this RIA. This approach would also potentially overestimate burden reduction associated with CAERS case 4.

- **Consideration of Voluntary Activities as Incremental Costs:** As mentioned earlier in this RIA, the cost estimates for this proposal include the costs for voluntary emissions data collection activities (for HAP and other pollutants) carried out by states, local, and tribal governmental authorities in the absence of this new rule. Given that these activities will now be required under the proposed AERR, an argument can be made that the costs of these activities can reasonably be included as costs of the proposal. However, given that there may be no real increment of costs for authorities currently carrying out these activities given how the baseline for a proposed rule such as this one is normally characterized, a counter argument could be made that these costs can reasonably not be included in the costs of the proposal.

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