
SUPPORTING STATEMENT

Air Emissions Reporting Requirements (AERR)

EPA ICR # 2170.08 OMB Control No. 2060-0580

Short Characterization/Abstract

The Environmental Protection Agency (EPA) promulgated the Revisions to the Air Emissions Reporting Requirements: Revisions to Lead (Pb) Reporting Threshold and Clarifications to Technical Reporting Details on February 19, 2015 (FR Vol 80, No. 33, 8787). The Air Emissions Reporting Requirements (AERR) revisions finalized changes to the EPA's emissions inventory reporting requirements. The AERR has an approved information collection request (ICR) in place (ICR Number 2170.07). This supporting statement provides estimates of the burden of reporting air emissions-related information from state, territorial, and local agencies for inventory years 2021, 2022, and 2023, which are due to be reported on December 31 of the year following each inventory year.

Under the current AERR ICR, 54 state and territorial air quality agencies, including the District of Columbia (DC), and an estimated annual average of 26¹ local and tribal air quality agencies, must annually submit emissions data for point sources with the potential to emit specified levels of oxides of nitrogen (NO_x), carbon monoxide (CO), sulfur dioxide (SO₂), volatile organic compounds (VOC), particulate matter less than or equal to 10 micrometers in diameter (PM₁₀), particulate matter less than or equal to 2.5 micrometers in diameter (PM_{2.5}), and ammonia (NH₃). Additionally, these air quality agencies must submit emissions data every third year for point sources emitting 0.5 tons/year or more of lead.

Every 3 years, states² are required to submit a point source inventory as well as emissions for stationary nonpoint and some nonroad mobile sources for the same pollutants listed above. These agencies must also submit emissions model input data every 3 years for on-road mobile and non-road mobile equipment, except for California, which must submit emissions for these data categories of the same pollutants listed above. The emissions data submitted for the annual and 3-year cycle (triennial) inventories are used by the EPA's Office of Air Quality Planning and Standards (OAQPS) to assist in developing ambient air quality emission standards, performing regional and national modeling, providing air quality management support to state agencies and Multi-jurisdictional organizations (MJOs), and preparing national trends assessments and other special analyses and reports. The same reporting mechanisms used for the criteria pollutants and precursors listed above are also used for voluntary reporting of hazardous air pollutants (HAP)

1 31 local and tribal agencies reported in 2017 and 23 in 2018. 26 is a weighted average with triennial years assuming 31 and interim years assume 23 (i.e., $[31 + 23 + 23]/3$ rounds up to 26)

2 Except where noted, future reference to "state(s)" in this supporting statement includes 50 states, 3 territories, 31 local and tribal agencies, and the District of Columbia (DC). 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 as State (TAS) status under the Clean Air Act and obtain approval to implement rules such as the AERR through a Tribal Implementation Plan.

and greenhouse gas (GHG) emissions. These data are collected by the air agencies for their own purposes, and the EPA encourages providing such data to the EPA when it is available.

1. Explain the circumstances that make the collection of information necessary. Identify any legal or administrative requirements that necessitate the collection. Attach a copy of the appropriate section of each statute and regulation mandating or authorizing the collection of information.

The AERR coordinates the various state emission inventory reporting requirements and streamlines the activities involved in submitting emissions data to the EPA. The AERR enables the EPA to achieve uniformity and completeness in a national inventory to support national, regional, and local air quality planning and attainment. As the EPA works with state and local agencies to address national, regional, and local air quality issues with cost-effective practices, there is a continued need for states to develop consistent inventories and to share their emissions inventory data across the air agencies.

While the Clean Air Act (CAA) does not provide a specific authorization for a national emissions database, the CAA provides the EPA ample legislative authority for acquiring such data. Emissions data are of vital importance to the EPA for fulfilling a host of monitoring, standard-setting, rulemaking, reviewing, and reporting duties. Sections 110 and 301(a) of the CAA provide the primary authority for a national emissions database. Section 110 requires each state to prepare a plan that provides for implementation, maintenance, and enforcement of the primary standard for each pollutant for which air quality criteria have been issued. This plan must include provisions for periodic reports identifying sources and listing amounts of emissions. Section 301(a) authorizes the Administrator to promulgate necessary regulations.

Congressional support for collecting and reporting emissions data is demonstrated in three sections of the CAA. Section 110(a)(2)(F) requires that each state provide for periodic reports on the nature and amounts of emissions of criteria pollutants from stationary sources. Sections 182(a)(3)(A) and 187(a)(5) of the CAA specify periodic inventory requirements for ozone and CO nonattainment areas, respectively. Section 182(a)(3)(A) requires states with ozone nonattainment areas to submit a current inventory of actual emissions of VOC, NO_x, and CO every 3 years. Section 187(a)(5) requires a similar inventory of actual CO emissions for CO nonattainment areas. Periodic inventories include emission estimates for all point, nonpoint, onroad mobile, and nonroad mobile sources. Section 172(c)(3) also provides the Administrator with discretionary authority to require other emissions data as deemed necessary for State Implementation Plan (SIP) development in nonattainment areas to meet the national ambient air quality standards (NAAQS).

2. Indicate how, by whom, and for what purpose the information is to be used. Except for a new collection, indicate the actual use the agency has made of the information received from the current collection.

Emissions data and related information on stationary point and nonpoint sources, as well as onroad mobile and nonroad mobile sources, are routinely used by OAQPS and the EPA Regional Offices in carrying out a variety of activities. These activities support regulatory functions as well as functions that are more programmatic in nature, such as trends analyses. Such projects include:

- Basic information to support the boundaries selected for designation of nonattainment areas;
- Evaluation of existing control strategies included in SIPs;
- Evaluation of control strategies for states and larger areas, including applications of regional and national scale models;
- Preparation and publication of national summaries of emissions including trend analyses and international reporting obligations;
- As a database to assist in the identification of important source categories for future regulation;
- Development of national control strategies and preparation of Regulatory Impact Analyses through application of air quality modeling;
- As a key part of air quality modeling platforms, which the EPA uses for research and planning and provides publicly for use for state and MJO air quality modeling efforts;
- As a building block to assist states with compliance with their requirements for preparing SIPs; and
- Preparation of the stationary source portion of a report to Congress on SO₂ emissions. This report is required by Section 406 of the CAA and is due on a 5-year cycle that began on January 1, 1995. The report must contain an inventory of national annual SO₂ emissions from industrial sources (as defined in Title IV of the CAA).

In addition to supporting efforts listed above, the 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 involved in special studies; Congress; the press; domestic and international universities; and others involved in research of many types.

3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological collection techniques or other

forms of information technology, e.g., permitting electronic submission of responses, and the basis for the decision for adopting this means of collection. Also describe any consideration of using information technology to reduce burden.

The EPA has established a central repository of emissions inventory data for all states called the Emissions Inventory System (EIS). Emissions inventory data reported electronically are stored in the EIS, and the database is used by the EPA and by states for obtaining emissions data reports and input files for air quality modeling.

The EPA maintains the EIS as a central repository of inventory data for all states, but much of the data must be supplied by the state and local agencies in electronic form. The EPA requires that submitting agencies use a defined eXtensible Markup Language (XML) schema for electronic data reporting using the EPA's Central Data Exchange (CDX). Instructions for reporting data to the EIS via CDX are provided on EPA's website at <https://www.epa.gov/air-emissions-inventories/emissions-inventory-system-eis-users-manual-and-how-tos> via the link "How Do I Submit to EIS Using the Web Client?"

EPA promotes burden reduction of the mandatory reporting requirements for states in several ways. The EPA has developed the Combined Air Emissions Reporting System (CAERS) for use by states to collect point source emissions and report them to the EPA rather than develop and maintain their own emissions reporting data system. For nonpoint sources, the EPA loads nonpoint emissions data for consideration for review and acceptance by the states. States can meet their reporting obligations by (a) reviewing and provide comments on EPA's estimates for EPA to incorporate, (b) revise the estimates by reporting emissions, or (c) accept the estimates after review. For onroad mobile sources and nonroad equipment, the EPA runs the latest mobile source emissions model using state-supplied model inputs and provides the resulting emissions for onroad and nonroad vehicles for review and comment by the states. For aircraft emissions, the EPA compiles landing and takeoff data, provides to states for review and comment, and then computes emissions using the latest Federal Aviation Administration emissions model. For commercial marine vessels, the EPA compiles activity data using the Automatic Identification System (AIS) database and computes emissions for review and comment by states. Finally, for locomotive emissions, the EPA works with industry representatives to compile activity data and draft emissions for review and comment by states.

For the voluntary reporting of wildfire and prescribed burning events, the EPA compiles available satellite and ground-based fire observation data from numerous sources around the country, and provides those data for voluntary state review, edit, and comment. The EPA also estimates the wildfire and prescribed burning emissions based on these revised data for inclusion in the National Emissions Inventory (NEI). In addition to the data mentioned above, the EPA loads into EIS for use in the NEI several national datasets, including Toxics Release Inventory, the Greenhouse Gas Reporting Program data, and data on emissions from drilling wells from the Bureau of Ocean Energy Management

4. Describe efforts to identify duplication. Show specifically why any similar information already available cannot be used or modified for use for the purposes described in Item 2 above.

Previous reporting requirements have occasionally caused state agencies to have inefficient collecting and reporting activities. The AERR was promulgated specifically to simplify previously existing emission inventory reporting by states to the EPA, offer options for data collection and exchange, and unify reporting dates for various categories of inventories to avoid duplication of effort. For example, under the NO_x SIP Call rulemaking, the EPA required states to submit annual inventories for all NO_x sources for which states had adopted control measures to meet their NO_x budget. In addition, statewide NO_x inventories of all controlled and uncontrolled sources were required every 3 years. The Consolidated Emissions Reporting Rule (CERR) also required annual and triennial emission inventory reporting of many of the same data elements. The AERR aligned the reporting dates and combined data from these two previous collection activities to avoid duplication of information collected from sources, minimize the burden on industry, and reduce the effort for state and local government agencies to compile the data. Additionally, other regulations including both the Ozone SIP Requirements Rule (40 CFR 51, Subpart CC) and the PM SIP Requirements Rule (40 CFR 51, Subpart Z) refer to the AERR for many of the emissions reporting requirements specified in those rules.

More recently, the EPA has worked in partnership with states as part of the E-Enterprise program to develop the CAERS. This system provides states an option for collecting of point source emissions (and all related data fields) from owner/operators and supports the requirement of the AERR to report that data to the EIS. Instructions for using CAERS are provided on EPA's website at <https://www.epa.gov/e-enterprise/combined-air-emissions-reporting-system-caers-users-guide>.

States can voluntarily participate in CAERS using a variety of data flows that wholly or partly offset the necessity for states to develop and maintain their own electronic point source data collection system. CAERS also allows states to avoid purchasing such a system or from using less efficient paper forms. Any electronic data collection system has a user "front-end" for data entry and a "back-end" database to store and manage the data. The current version of CAERS allows states to replace both the data entry and database aspects of a collection system, which can wholly offset the burden of their own system. The EPA has planned for other implementations of CAERS in which states can use either the CAERS data entry features or the database features but keep the other parts of their existing data system to allow for best meeting individual needs of states.

Additionally, the EPA recognizes potential duplication across certain federal emission data collection programs. States collect data from facilities, including HAP emissions. The EPA collects data from states for the NEI (including voluntarily submitted HAP emissions), and the EPA also collects HAP emissions data from owners/operators as part of the collections required for the Toxics Release Inventory (TRI; 40 CFR Part 372). For this reason, CAERS makes any HAP data reported by owner/operators to states using CAERS available to the TRI-MEweb software used by owner/operators to report air emissions to TRI to further offset burden. With this approach, owners/operators can use CAERS to report any state-required HAP emissions, the CAERS maps and aggregates that data to the resolution needed for the TRI. This approach promotes burden reduction for owner/operators and data consistency across agencies. While this feature is not appropriate to be used in all cases because of different facility definitions, there are many cases in which the state definition of facility and the TRI definition align and therefore promote burden reduction for owner/operators.

5. If the collection of information impacts small businesses or other small entities, describe any methods used to minimize burden.

State agencies are not considered to be small entities. According to the EPA's ICR Handbook, OMB's definition for a small entity includes small governmental jurisdictions with populations of less than 50,000. According to 2010 population data from the U.S. Census Bureau, no state or territory has a population below this threshold. In addition, none of the local air agencies that report under the AERR for their jurisdictions represent an area with population of less than 50,000.

6. Describe the consequence to Federal program or policy activities if the collection is not conducted or is conducted less frequently, as well as any technical or legal obstacles to reducing burden.

The submittal dates required for reporting emissions data to the EPA have been established to minimize the burden on state agencies, but also to ensure that state agencies are collecting timely and sufficient emission inventory data to support air pollution management efforts. A statewide inventory compiled at least every 3 years for all point, nonpoint, onroad mobile and nonroad mobile sources is considered important to assist states in meeting various CAA requirements.

If the information collection were not carried out every 3 years for all sources and annually for larger point sources, the EPA would not be able to maintain a central, national repository of emissions data from which to extract updated information needed to fulfill EPA mandates. In fact, the public continues to expect annual data updates for as many sources as possible.

7. Explain any special circumstances that would cause an information collection to be conducted in a manner:

- **requiring respondents to report information to the agency more often than quarterly;**
- **requiring respondents to prepare a written response to a collection of information in fewer than 30 days after receipt of it;**
- **requiring respondents to submit more than an original and two copies of any document;**
- **requiring respondents to retain records, other than health, medical, government contract, grant-in-aid, or tax records, for more than three years;**
- **in connection with a statistical survey, that is not designed to produce valid and reliable results that can be generalized to the universe of study;**
- **requiring the use of a statistical data classification that has not been reviewed and approved by OMB;**
- **that includes a pledge of confidentiality that is not supported by authority established in statute or regulation, that is not supported by disclosure and data security policies that are consistent with the pledge, or which unnecessarily impedes sharing of data with other agencies for compatible confidential use; or**

- **requiring respondents to submit proprietary trade secrets, or other confidential information unless the agency can demonstrate that it has instituted procedures to protect the information's confidentiality to the extent permitted by law.**

This ICR does not violate any of OMB's guidelines for information collections.

8. If applicable, provide a copy and identify the date and page number of publication in the Federal Register of the agency's notice, required by 5 CFR 1320.8(d), soliciting comments on the information collection prior to submission to OMB. Summarize public comments received in response to that notice and describe actions taken by the agency in response to these comments. Specifically address comments received on cost and hour burden.

Describe efforts to consult with persons outside the agency to obtain their views on the availability of data, frequency of collection, the clarity of instructions and recordkeeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported.

Consultation with representatives of those from whom information is to be obtained or those who must compile records should occur at least once every 3 years - even if the collection of information activity is the same as in prior periods. There may be circumstances that may preclude consultation in a specific situation. These circumstances should be explained.

A notice for comment on the proposed AERR ICR was published in the *Federal Register* on May 7, 2021 (86 FR 24614). One comment was received but was outside the scope of this ICR.

The EPA regularly participates on conference calls chaired by the National Association of Clean Air Agencies (NACAA) and the Association of Air Pollution Control Agencies (AAPCA) to discuss issues raised by state agencies related to emission inventories. As previously described, the EPA developed and operates EIS to serve as the repository for the state agency data submitted to the EPA under the AERR requirements. The EIS includes a Support Request feature and a quality assurance test environment for state agencies. In addition, the EPA provides training via webinars, conferences, and EPA's website for the states to learn about using the EIS and the development of inventories for reporting to EPA. However, EPA did not fulfill the consultation requirements in 5 CFR 1320.8(d)(1).

9. Explain any decision to provide any payment or gift to respondents, other than remuneration of contractors or grantees.

This information collection does not provide payment or gifts to respondents.

10. Describe any assurance of confidentiality provided to respondents and the basis for the assurance in statute, regulation, or agency policy. If the collection requires a systems of records notice (SORN) or privacy impact assessment (PIA), those should be cited and described here.

Any data that are submitted to the EPA under this program will be considered in the public domain and cannot be treated as confidential.

11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private. This justification should include the reasons why the agency considers the questions necessary, the specific uses to be made of the information, the explanation to be given to persons from whom the information is requested, and any steps to be taken to obtain their consent.

This information collection does not ask any questions concerning sexual behavior or attitudes, religious beliefs, or other matters usually considered private.

12. Provide estimates of the hour burden of the collection of information. The statement should:

- **Indicate the number of respondents, frequency of response, annual hour burden, and an explanation of how the burden was estimated. Unless directed to do so, agencies should not conduct special surveys to obtain information on which to base hour burden estimates. Consultation with a sample (fewer than 10) of potential respondents is desirable. If the hour burden on respondents is expected to vary widely because of differences in activity, size, or complexity, show the range of estimated hour burden, and explain the reasons for the variance. Generally, estimates should not include burden hours for customary and usual business practices.**
- **If this request for approval covers more than one form, provide separate hour burden estimates for each form and aggregate the hour burdens.**
- **Provide estimates of annualized cost to respondents for the hour burdens for collections of information, identifying and using appropriate wage rate categories. The cost of contracting out or paying outside parties for information collection activities should not be included here. Instead, this cost should be included under ‘Annual Cost to Federal Government’.**

The emissions data required by the AERR are submitted by state, territorial, and local air pollution control agencies. The affected NAICS code is 924110 – *Administration of Air and Water Resources and Solid Waste Management Programs*, which includes governmental environmental protection and control agencies, and pollution control agencies.

Under the AERR, there are 54 state and territorial air pollution control agencies and between 23 and 31 local and tribal air agencies that are subject to the national reporting requirements and are 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. Additionally, based on expressed interest in CAERS from state and local agencies, the EPA estimates that 4 states/locals will use CAERS for reporting in 2022, 8 in 2023, and 12 in 2024. Furthermore, reporting that occurs in 2022 and 2023 is for the smaller set

of Type A sources whereas reporting in 2024 is for Type B sources because 2023 is a triennial reporting year. As a results, the EPA has assumed an average 8 states/locals will use CAERS for Type A reporting across the three years (i.e., $(4+8+12)/3$) for the burden calculations associated with Type A sources.

The respondent burden for complying with the reporting requirements of this AERR ICR is estimated based on the burden associated with meeting both the annual and the 3-year cycle reporting requirements. The state agencies reporting to the EPA under the AERR maintain their own air quality management systems, including permitting programs and annual emissions fee programs for their point sources. The efforts they expend to collect and manage emissions inventory data for these purposes, which are irrespective of the AERR, are not included as part of the burden estimates for reporting the data to the EPA under this control number. However, EPA will estimate the burden associated with the activities listed below during the next renewal period.

The efforts expended to support their permitting and emissions fee statement programs and other state uses, which are excluded from the federal AERR reporting burden estimate include:

- Maintaining the state's data system to collect data from facilities;
- Collecting emissions data and other associated information;
- Training staff in coding and submissions techniques;
- Quality-assuring and quality-controlling emissions data and resolving errors and anomalies prior to submitting to the EIS electronic quality-assurance; and
- Maintaining records associated with data submitted by sources.

For the point source inventory reporting requirements of the AERR, respondent activities generally involve copying emissions and related parameters from an existing state electronic file, resolving any errors or anomalies identified through edits or other qualitative reviews, and providing it to the EPA electronically using XML format. Thus, the activities for generating criteria pollutant point source inventories are primarily data processing and typically do not involve the development of new data that does not already exist in the state's files. However, compiling a triennial statewide nonpoint, onroad mobile, and nonroad mobile source inventory is expected to involve additional effort by a state. The specific respondent activities associated with the AERR are outlined below and are grouped into annual and triennial activities.

Annual state activities include submitting emissions data for Type A point sources with potential to emit 2,500 tons per year (tpy) of NO_x, CO, or SO₂; or 250 tpy of VOC, PM₁₀, PM_{2.5} or NH₃. The key steps to perform this work are:

- Updating state data systems to comply with electronic reporting requirement format changes;
- Extracting the necessary data from the state electronic data system;

- Converting 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;
- Converting the point emissions data into the XML submittal format;
- Running the automated quality-assurance checks provided in the EPA data system and resolving any critical errors;
- Submitting the final file to the EPA; and
- Responding to any follow-up inquiries from the EPA.

For triennial reporting, state activities include:

- Submitting emissions data for Type B point sources with the potential to emit 100 tpy of NO_x, SO₂, VOC, PM₁₀, PM_{2.5}, or NH₃; or 1,000 tpy of CO; or with actual emissions of at least 0.5 tons of lead, which includes data for Type A sources (the same steps as listed above for Type A sources apply);
- For states with nonattainment areas, submitting emissions data for Type B sources with lower emissions thresholds for sources within the nonattainment areas, in accordance with Table 1 of Appendix A to Subpart A of 40 CFR Part 51;
- Developing and reporting statewide emission inventory estimates for stationary nonpoint sources, commercial marine vessels, aircraft, and locomotives, which involves at the option of the state either reviewing EPA-provided data (described above) or collecting activity data, estimating emissions, formatting data into XML format, running quality assurance checks, and submitting the final data through CDX;
- For all states except California, developing model inputs for onroad mobile and nonroad mobile sources, which involves reviewing and revising draft data from the EPA and/or collecting such data from other sources, reviewing and editing that data, formatting data into required XML format, running quality assurance checks, and submitting the final data to the EPA through CDX;
- For California, developing and reporting statewide inventory emission estimates for onroad and nonroad mobile sources for all criteria pollutants, which involves developing model inputs for California's mobile source model, running the California mobile source model, and the same steps as listed for stationary nonpoint emissions; and
- Voluntary review and use of fire activity and emissions data.

The following sections discuss the assumptions used to develop burden hour estimates for annual and triennial activities. Table 1 lists the burden items included under these categories and presents their associated burden hours for 1 year. In general, managerial time was estimated to be

about 10 percent of technical staff time for point sources and 5 percent of staff time for other sources. Burden hours and associated costs were estimated for the 3-year period that the affected states would have to report emissions data to the EPA. In this case, that period corresponds to the years 2022, 2023, and 2024 (since states will begin collecting data for the emissions year 2021 during 2022 and would report the data within 12 months of the end of 2021; i.e., December 31, 2022). Tables 2a through 2c present the state respondent annual burden hours and costs by activity.

Annual activities

For 2 of the 3 years in each triennial cycle, the agencies submit only point source data for Type A sources. To help estimate the time needed to report emissions for Type A sources, we estimate the number of such sources by considering the emissions reporting thresholds. The Type A reporting thresholds are potential-to-emit thresholds; however, the EPA does not collect potential-to-emit data. The EPA only collects actual emissions, and actual emissions are lower than potential-to-emit values. Since EPA does not collect data on potential-to-emit, it is difficult to know with certainty the number of Type A sources. Furthermore, many states voluntarily submit many more facilities than those required. For these reasons, we must estimate the number of Type A sources.

Based on an analysis of the 2014 NEI, 1,255 sources (i.e., facilities) had *actual* emissions greater than the Type A potential-to-emit thresholds of 2,500 tpy of NO_x, CO, or SO₂, or 250 tpy of VOC, PM₁₀, PM_{2.5}, or NH₃. Using 2014 NEI is conservative because the number of these large sources has further decreased since 2014. To adjust for the undercounting due to actual emissions, we assume that there are double the number Type A sources than have actual emissions that exceed the Type A thresholds. As a result, we assume 2,510 Type A 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 Type A sources to be reported on average per agency for 2 of the 3 years. The number of Type A sources can be much larger for heavily industrialized states and smaller (all the way down to zero Type A sources) for some smaller states and local agencies.

Table 1 summarizes the hours per state respondent for the annual reporting years, and we have estimated these hours based on the average number of sources per respondent. This ICR uses the same approach as was developed for the prior ICR, which had been improved from prior cycles.

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 idea of economies of scale is further supported by the actual number of facilities reported in these years. States report about 28,000 facilities in the annual reporting years, which is about ten times more than the estimated 2,510 facilities required to be reported.

To account for states that we estimate will use the CAERS for Type A sources in the 2022 through 2024 reporting 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 1, the rightmost column shows which steps are necessary for agencies that use CAERS. On average for a state using CAERS, the number of hours associated with reporting Type A sources is reduced from 50 hours per year 8 hours per year.

Triennial activities

For the triennial inventory submission, the state agencies submit the more numerous Type B sources. Like Type A sources, the Type B reporting thresholds are based on potential-to-emit values, but the EPA does not collect potential-to-emit data. Fortunately, the Type B threshold definition is nearly the same as the Major source definition for Title V facilities, and a list of such 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 EPA many times per year, which helps ensure that we are using updated information.

For the previous version of this ICR using the ECHO database, the EPA determined that there are 13,408 Major Title V facilities nationwide. To adjust this facility-count for the Type B definition, we also needed to consider the Type B threshold for lead, which is 0.5 tons of actual emissions per year (and more stringent than the Major Title V definition). Since the lead threshold is based on actual emissions, we used the 2014 NEI to determine that just 12 additional facilities have 0.5 tons of lead emissions or more and are not otherwise identified as Major Title V sources. The resulting Type B source facility total used for this work is 13,420. Because the number of Title V facilities as decreased since the previous ICR, these numbers provide a conservative estimate of the number of facilities.

Since there are 85 reporting agencies in triennial years, we estimate an average of 158 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 states and local agencies. Because much of the effort needed to report the point source emissions data from the state data systems to the EPA involves automated data manipulations, there are economies of scale for the states with many sources. The idea of economies of scale is further supported by the actual number of facilities reported. States report about 50 thousand facilities in the triennial reporting years, which is far greater than the 13,420 facilities that we estimate are required.

Table 1 summarizes the average hour burden estimates for this triennial point source reporting. It is conservatively estimated that the additional hours needed for tasks 4 and 6, resolving critical quality assurance errors and responding to EPA follow-up questions, will increase by a factor of 5 compared to the annual Type A reporting. This factor is derived by dividing the average Type B facility count per agency (158) by the average Type A facility count per agency (33). The tasks of (a) converting the Facility Inventory and (b) converting the point emissions data into the XML format are conservatively estimated to require just twice the effort needed for the annual Type A sources, because the task is largely the same regardless of the number of sources. The tasks of (a) extracting data from a state data system and (b) submitting a

final file to the EPA are estimated to require the same amount of effort as for a Type A annual reporting year.

To account for states that we estimate will use the CAERS for Type B sources in the 2024 reporting year, 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 1, the rightmost column shows which steps are necessary for agencies that use CAERS. For a state using CAERS, the average estimated number of hours associated with reporting the increment of Type B sources in triennial years is reduced from 140 hours per year 24 hours per year.

In addition to the Type B point source reporting, a burden is expected for states to develop the statewide stationary nonpoint emissions, onroad and nonroad source emissions (California), and onroad and nonroad model inputs every 3 years. The burden for a state agency to develop and report statewide inventories was estimated to be 1,740 hours for the primary staff person and 87 managerial hours every third year in the previous ICR (number 2170.07). Since there is no change in the AERR since that ICR was done, there is no change in the state agency hours estimates for this ICR. The EPA's efforts to reduce burden (described above) have become more extensive since the last ICR was published, which makes these hours estimates even more conservative.

For local agencies responsible for developing and reporting nonpoint and mobile source model inputs for each county within their jurisdiction, the triennial burden is estimated to be one-half of that estimated for a state agency (i.e., $\frac{1}{2}$ of 1,740 = 870 technical hours plus 44 managerial hours). Additional hours were also estimated for all local agencies (i.e., 31 agencies) to coordinate and provide some de minimis emissions inventory data or supporting information to their corresponding state agency. The time estimated for each local agency to perform these activities every 3 years was estimated to be 80 technical hours and 4 managerial hours. Since there is no change in the AERR since that ICR was done, there is no change in the local agency hours estimates for this ICR.

Tables 2a, 2b, and 2c presents state respondent annualized hours and costs for each information collection activity. These tables include certain capital costs as well as operation and maintenance (O&M) costs, which are further described in Section 13. Table 2a provides the hours and cost burden on average for states using the EIS to submit all sources. Table 2b provides the hours and cost burden on average for states using CAERS to submit point sources and EIS to submit all other sources. 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. For the annual Type A point source reporting activities, annualized hours are the same as shown in Table 1. However, in the case of the additional hours needed in each triennial reporting year to report the larger number of point sources, the number of *incremental* hours above the Type A source effort is divided by three to estimate the annualized burden.

Estimating Labor Costs

For this ICR, the labor rate used for technical staff at state agencies is \$46.58 per hour, and the labor rate for managerial employees at these agencies is \$77.76 per hour. These labor rates are found in data shown on the U.S. Department of Labor, Bureau of Labor Statistics Web site at https://www.bls.gov/oes/current/naics4_999200.htm#11-0000 (“National Industry-Specific Occupational Employment and Wage Estimates, May 2020”). The technical rate represents the mean hourly wage for Environmental Engineers for NAICS 999200 - State Government. The managerial rate represents the mean hourly wage for Computer and Information Systems Managers in the same NAICS. An overhead rate of 100 percent was applied to both the technical and managerial mean hourly wage rates to derive the bottom-line rates of \$93.16 and \$155.52 used in the calculations and shown in Tables 2a and 2b.

The number of respondents is estimated to be 54 states/territories (including DC), and average annual 26 local and tribal agencies, resulting in an annual average of 80 total respondents. As detailed in Table 2c and Table 3, the total annual hourly burden for all respondents is estimated to be 48,702 hours per year, and the total annual cost is estimated to be \$4,960,908.

Table 1. State Respondent Burden Hours by Activity

Information Collection Activity	Hours Per Respondent			Relevant for CAERS?
	Managerial Hours	Technical Hours	Total	
1. Extract data from the state data system		4	4	N
2. Convert data into the XML format – Facility info		8	8	N
3. Convert data into the XML format – Emissions info		4	4	N
4. Run quality-assurance checks and resolve critical errors	2	24	26	N
5. Submit final file to the EPA via CDX		2	2	Y
6. Respond to follow-up inquiries from the EPA	2	4	6	Y
Subtotal for Annual Point Source Reporting via EIS	4	46	50	
Subtotal for Annual Point Source Reporting via CAERS	2	6	8	
1. Extract data from the state data system		4	4	N
2. Convert data into the XML format – Facility info		16	16	N
3. Convert data into the XML format – Emissions info		8	8	N
4. Run quality-assurance checks and resolve critical errors	10	120	130	N
5. Submit final file to the EPA/EIS via CDX		2	2	Y
6. Respond to follow-up inquiries from the EPA	10	20	30	Y
Subtotal for Triennial Point Source Reporting via EIS	20	170	190	
Subtotal for Triennial increment (Type B - Type A) via EIS	16	124	140	
Subtotal for Triennial increment (Type B - Type A) via CAERS	8	16	24	

7. For state agencies, develop and report statewide inventory data for stationary nonpoint, nonroad mobile, and onroad mobile sources for all pollutants	87	1,740	1,827	Y
8. For local agencies, develop and report county-level inventory data for stationary nonpoint, nonroad mobile, and onroad mobile sources for all pollutants	44	870	914	Y
9. For local agencies, coordinate with state agencies to complete stationary nonpoint, nonroad mobile, and onroad mobile sources for all pollutants	4	80	84	Y

Table 2a. Annualized Burden per Respondent for EIS Approach

Information Collection Activity	Manager Hrs/yr @ \$155.52/Hr	Tech. Hrs/yr @ \$93.16/Hr	Hours/ Year	Labor Cost/Year	Capital Cost ¹	O & M Cost
Annual						
Submit Type A point sources with EIS	4	46	50	\$4,907		
Triennial (triennial hours from Table 1 divided by 3 to annualize)						
Submit Type B point sources with EIS (increment above Type A)	5.33	41.33	46.67	\$4,680		
For state agencies, develop and report statewide inventory for stationary nonpoint, onroad mobile, and nonroad mobile sources	29	580	609	\$58,543		
For local agencies, develop and report county-level inventories for stationary nonpoint, onroad mobile, and nonroad mobile sources	14.67	290	304.67	\$29,297		
For local agencies, coordinate with state agencies to complete stationary nonpoint, onroad mobile, and nonroad mobile sources	1.33	26.67	28	\$2,692		
Capital and O&M					\$1,500	\$1,500
Total	54.33	984	1038.33	\$100,119	\$1,500	\$1,500

Table 2b. Annualized Burden per Respondent for CAERS Point Source Approach and EIS for All Other

Information Collection Activity	Manager Hrs/yr @ \$155.52/Hr	Tech. Hrs/yr @ \$93.16/Hr	Hours/ Year	Labor Cost/Year	Capital Cost	O & M Cost
Annual						
Submit Type A point sources with CAERS	2	6	8	\$870		
Triennial (triennial hours from Table 1 divided by 3 to annualize)						
Submit Type B point sources with CAERS (increment above Type A)	2.67	5.33	8	\$912		
For state agencies, develop and report statewide inventory for stationary nonpoint, onroad mobile, and nonroad mobile sources	29	580	609	\$58,543		
For local agencies, develop and report county-level inventories for stationary nonpoint, onroad mobile, and nonroad mobile sources	14.67	290	304.67	\$29,297		
For local agencies, coordinate with state agencies to complete stationary nonpoint, onroad mobile, and	1.33	26.67	28	\$2,692		

nonroad mobile sources						
Capital and O&M					\$1,500	\$1,500
Total	49.67	908	957.67	\$92,313	\$1,500	\$1,500

Table 2c. Annualized Total Respondent Burden and Cost by Activity

Information Collection Activity	Number of Respondents	Total Hours/Year ¹	Total Cost/Year ²
Annual			
Submit Type A point sources with EIS	72	3,600	\$353,336
Submit Type A point sources with CAERS	8	64	\$6,960
Triennial (triennial hours from Table 6-1 divided by 3 to annualize)			
Submit Type B point sources (increment above Type A) with EIS	73	3,407	\$341,644
Submit Type B point sources (increment above Type A) with CAERS	12	96	\$10,939
State agencies all sources except point (with EIS)	54	32,886	\$3,161,316
Local agencies all sources except point (with EIS)	26	8,649	\$831,714
Labor Subtotal with EIS			\$4,688,009
Labor Subtotal with CAERS			\$17,899
Capital and O&M³	85		\$255,000
Total	85	48,702	\$4,960,908

¹ Hours per year are rounded to the nearest hour.

² Costs per year are rounded to the nearest dollar.

³ Capital costs and O&M are calculated using the full number of 85 respondents because equipment is needed for every year irrespective of reporting.

13. Provide an estimate for the total annual cost burden to respondents or record keepers resulting from the collection of information. (Do not include the cost of any hour burden already reflected on the burden worksheet).

- **The cost estimate should be split into two components: (a) a total capital and start-up cost component (annualized over its expected useful life) and (b) a total operation and maintenance and purchase of services component. The estimates should take into account costs associated with generating, maintaining, and disclosing or providing the information. Include descriptions of methods used to estimate major cost factors including system and technology acquisition, expected useful life of capital equipment, the discount rate(s), and the time period over which costs will be incurred. Capital and start-up costs include, among other items, preparations for collecting information such as purchasing computers and software; monitoring, sampling, drilling and testing equipment; and record storage facilities.**
- **If cost estimates are expected to vary widely, agencies should present ranges of cost burdens and explain the reasons for the variance. The cost of purchasing or contracting out information collections services should be a part of this cost burden estimate. In developing cost burden estimates, agencies may consult with a sample of respondents (fewer than 10), utilize the 60-day pre-OMB submission public**

comment process and use existing economic or regulatory impact analysis associated with the rulemaking containing the information collection, as appropriate.

- **Generally, estimates should not include purchases of equipment or services, or portions thereof, made: (1) prior to October 1, 1995, (2) to achieve regulatory compliance with requirements not associated with the information collection, (3) for reasons other than to provide information or keep records for the government, or (4) as part of customary and usual business or private practices.**

The total number of respondents is 85 (the maximum that occurs in triennial years), which reflects the number of agencies that report data directly to the EPA. The number of workstations assumed for each respondent reflects the number of workstations that would be dedicated to reporting under the previous ICR. It was assumed that each agency would require 5 workstations to comply with the reporting provisions of the AERR (1 for point sources, 1 for nonpoint sources, 1 for onroad mobile, 1 for nonroad mobile, and 1 for managerial/coordination activities). The number of workstations is 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, when replacement becomes necessary, is assumed to be approximately \$1,500 per agency. For this ICR, it is assumed that 20 percent of the workstations will be replaced each year. Thus, the costs of replacement per agency would be:

$$5 \text{ workstations/agency} \times 20\% \text{ replacement/year} \times \$1,500/\text{workstation} = \$1,500/\text{agency/year}$$

$$\text{Cost of workstation replacement for all agencies equals: } \$1,500/\text{replacement costs/year} \times 85 \text{ agencies/year} = \$127,500/\text{year}$$

Maintenance costs are attributed to the normal maintenance of the workstations used to submit the required annual and triennial reports to the EPA. This includes annual software costs, service costs, and warranty costs. It is assumed that the total cost of ownership over 5 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 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:

$$\$1,500/\text{agency/year} \times 85 \text{ agencies} = \$127,500/\text{year}.$$

14. Provide estimates of annualized costs to the Federal government. Also, provide a description of the method used to estimate cost, which should include quantification of hours, operational expenses (such as equipment, overhead, printing, and support staff), and any other expense that would not have been incurred without this collection of information. Agencies may also aggregate cost estimates from Items 12, 13, and 14 in a single table.

The EPA activities associated with the AERR 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 voluntary 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; 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 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 2021, 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 ICR.

As of fiscal year 2021, 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 2021, 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 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 508 compliance steps. For these activities, the 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, the 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 (5.7 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 \$117,500 per year. The rate includes possible increases above the fiscal year 2021 rate of \$114,902. 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 \$148,000. Thus, the total resulting EPA annual impact for 18 FTE is 37,440 hours and \$2,664,000.

Table 3. Total Estimated Respondent and EPA Burden and Cost Summary

Burden Element/Cost	Respondents	EPA	Total
Number of Respondents	85		85
Total Hours Per year	48,702	37,440	86,142
Annual Capital Cost	\$127,500	\$600,000	\$727,500
Annual O&M Cost	\$127,500	\$2,325,000	\$2,452,500
Total Annual Capital and O&M Costs	\$255,000	\$2,925,000	\$3,180,000
Labor Cost Per Year	\$4,705,908	\$2,664,000	\$7,369,908
Total Cost Per Year	\$4,960,908	\$5,589,000	\$10,549,908

15. Explain the reasons for any program changes or adjustments reported on the burden worksheet (in hour or cost burden.)

The net change in the estimated reporting burden as compared with the existing approved ICR for the AERR (EPA ICR #2170.07) is shown in the table below. These changes show an average annual increase in the number of responses from 75 to 80 and an associated hour increase of about 1,454 and cost increase of about \$447,518 including the changes in labor rates noted. This increase does not reflect a change in burden for each respondent, but rather reflects the latest counts of local agencies that report their emissions. The previous ICR assumed 20 local agencies would report on average, but the highest number of local agencies reporting in the last three reporting years has been 31 agencies with a weighted average of 26 for a triennial period. The total number of state and territorial agencies reporting is 54, bringing the total revised number of annual average respondents to 80.

Based on an assumption of 12 state and local agencies adopting CAERS over 3 years as described above, these estimates reflect an annual average decrease of 800 hours of burden

representing an annual \$77,500 decrease in labor costs for those agencies. Because this ICR does not include the cost burden of state emissions data collection systems, the burden reduction associated with states that no longer need those systems is not included either. In some cases, the burden reduction for states using CAERS would be compared to using paper forms, and additional benefits are achieved by allowing states to convert to electronic collection. Although such effects are not included in this ICR, the EPA believes that a significant burden reduction is achieved and efficiencies gained for states using CAERS.

Additionally, increased labor rates are included in this ICR as compared with the existing approved ICR. Labor rates have been updated to the 2020 labor rates from U.S. Department of Labor, Bureau of Labor Statistics for managers and technical staff.

EPA costs included in this ICR reflect an update to the number of staff working to support the NEI program and to create the CAERS. We have revisited the number of EPA FTE involved in data collection for the NEI to include training, support, and the emissions factor program. Additionally, the CAERS program adds 3 FTE to the total. This has resulting in an increased number of EPA FTE from 10 to 18, which contributes to a \$1,184,000 increase in the cost using current labor rates. In addition, the CAERS annual capital, operation and maintenance costs are included, which adds an additional \$1,200,000 to the annual costs.

Table 4. Burden Change

	Currently Approved ICR	Change	Total Requested
Annual Responses	75	+5	80
Annual Respondent Hour Burden	47,248	+1,454	48,702
Annual Respondent Cost Burden	\$4,513,390	\$447,518	\$4,960,908
Annual EPA Cost Burden	\$1,480,000	\$4,109,000	\$5,589,000

16. For collections of information whose results will be published, outline plans for tabulation and publication. Address any complex analytical techniques that will be used. Provide the time schedule for the entire project, including beginning and ending dates of the collection of information, completion of report, publication dates, and other actions.

This ICR collects data for the NEI, which is published on an annual basis. After states submit the data, the EPA quality assures the point source data, resolves quality issues with the data submitters, and publishes the point sources in the EIS in 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 website for the most currently released triennial inventory year at <https://www.epa.gov/air-emissions-inventories/national-emissions-inventory-nei>.

17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons that display would be inappropriate.

Data under this action data will be collected through electronic systems. Given that the expiration date of an ICR can change based on monthly extensions near the end of an ICR approval, the EPA requests that the expiration date not be required to be displayed on the EIS

and CAERS data collection systems. The expiration date would be included in the user guides for both CAERS and use of CDX to submit to EIS.

18.Explain each exception to the topics of the certification statement identified in “Certification for Paperwork Reduction Act Submissions.”

There are no exceptions.