

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 2 and 51

[EPA-HQ-OAR-2004-0489; FRL-8604-02-OAR]

RIN 2060-AV41

Revisions to the Air Emissions Reporting Requirements

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: This action proposes changes to the EPA's Air Emissions Reporting Requirements (AERR). The proposed amendments may require changes to current regulations of State, local, and certain tribal air agencies; 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 (HAP); certain sources to report criteria air pollutants, their precursors and HAP; and to require State, local, and certain tribal air agencies to report prescribed fire data. The proposed revisions would also define a new approach for optional collection by air agencies of such information on HAP 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; and add requirements for reporting fuel use data for certain sources of electrical generation associated with peak electricity demand. The proposed revisions include further changes for reporting on airports, rail yards, commercial marine vessels, locomotives, and nonpoint sources. For owners/operators of facilities that meet criteria described in this proposal, the proposed revisions 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 EPA also proposes to clarify that information the EPA collects through the AERR is emission data that is not subject to confidential treatment.

DATES: Comments on this proposed rule must be received on or before October 18, 2023. Under the Paperwork Reduction Act, comments on the

information collection request must be received by the EPA and OMB on or before September 8, 2023.

Public hearing: The EPA will hold a virtual public hearing on August 30, 2023. See **SUPPLEMENTARY INFORMATION** for additional information on the public hearing.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-HQ-OAR-2004-0489, by one of the following methods:

- *www.regulations.gov:* Follow the online instructions for submitting comments.

- *Email:* a-and-r-docket@epa.gov. Fax: (202) 566-9744.

- *Mail:* Air Emissions Reporting Requirements Rule, Docket No. EPA-HQ-OAR-2004-0489, Environmental Protection Agency, Mailcode: 2822T, 1200 Pennsylvania Ave. NW, Washington, DC 20460. Please include two copies.

- *Hand Delivery:* Docket No. EPA-HQ-OAR-2004-0489, EPA Docket Center, Public Reading Room, EPA West, Room 3334, 1301 Constitution Ave. NW, Washington, DC 20460. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

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

FOR FURTHER INFORMATION CONTACT: Mr. Marc Houyoux, Office of Air Quality Planning and Standards, Air Quality Assessment Division, Emission Inventory and Analysis Group (C339-02), U.S. Environmental Protection Agency, Research Triangle Park, NC 27711; telephone number: (919) 541-3649; email: NEI_Help@epa.gov (and include "AERR" on the subject line).

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I. Public Participation

The EPA will hold a virtual public hearing on August 30, 2023. The hearing will convene at 10:00 a.m. Eastern Time (ET) and will conclude at 4:00 p.m. ET. The EPA may close the hearing 15 minutes after the last pre-registered speaker has testified if there are no additional speakers. The EPA will announce any further details at <https://www.epa.gov/air-emissions-inventories/air-emissions-reporting-requirements-aerr>.

Upon publication of this document in the **Federal Register**, the EPA will begin pre-registering speakers for the hearing. The EPA will accept registrations on an individual basis. To register to speak at the virtual public hearing, please follow the instructions at <https://www.epa.gov/air-emissions-inventories/air-emissions-reporting-requirements-aerr> or contact the public hearing team at 919-541-3391 or by email at Godfrey.Janice@epa.gov. The last day to pre-register to speak at the hearing will be August 25, 2023. Prior to the hearing, the EPA will post a general agenda that will list pre-registered speakers in approximate order at <https://www.epa.gov/air-emissions-inventories/air-emissions-reporting-requirements-aerr>.

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

Each commenter will have 4 minutes to provide oral testimony. The EPA encourages commenters to provide the EPA with a copy of their oral testimony as written comments to the rulemaking docket.

The EPA may ask clarifying questions during the oral presentations but will not respond to the presentations at that time. Written statements and supporting information submitted during the comment period will be considered with the same weight as oral testimony and supporting information presented at the public hearing.

Any updates made to any aspect of the hearing will be posted online at <https://www.epa.gov/air-emissions-inventories/air-emissions-reporting-requirements-aerr>. The EPA does not intend to publish a document in the **Federal Register** announcing updates. While the EPA expects the hearing to go

forward as described in this section, please monitor <https://www.epa.gov/air-emissions-inventories/air-emissions-reporting-requirements-aerr> for any updates to the information described in this document, including information about the public hearing.

If you require the services of a translator or a special accommodation such as audio description, please pre-register for the hearing with the public hearing team contact listed above and describe your needs by August 16, 2023. The EPA may not be able to arrange accommodations without advance notice.

Docket. The EPA has established a docket for this rulemaking under Docket ID No. EPA-HQ-OAR-2004-0489. All documents in the docket are listed in <https://www.regulations.gov/>. Although listed, some information is not publicly available, e.g., Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the internet and will be publicly available only in hard copy. With the exception of such material, publicly available docket materials are available either electronically in [Regulations.gov](https://www.regulations.gov/) or in hard copy at the EPA Docket Center, Room 3334, WJC West Building, 1301 Constitution Avenue NW, Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the EPA Docket Center is (202) 566-1742.

Instructions. Direct your comments to Docket ID No. EPA-HQ-OAR-2004-0489. The EPA's policy is that all comments received will be included in the public docket without change and may be made available online at <https://www.regulations.gov/>, including any personal information provided, unless the comment includes information claimed to be CBI or other information whose disclosure is restricted by statute. Do not submit electronically to <https://www.regulations.gov/> any information that you consider to be CBI or other information whose disclosure is restricted by statute. This type of information should be submitted as discussed in the *Submitting CBI* section of this document.

The EPA may publish any comment received to its public docket. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points

you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.*, on the Web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <https://www.epa.gov/dockets/commenting-epa-dockets>.

The <https://www.regulations.gov/> website allows you to submit your comment anonymously, which means the EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an email comment directly to the EPA without going through <https://www.regulations.gov/>, your email address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the internet. If you submit an electronic comment, the EPA recommends that you include your name and other contact information in the body of your comment and with any digital storage media you submit. If the EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, the EPA may not be able to consider your comment. Electronic files should not include special characters or any form of encryption and be free of any defects or viruses. For additional information about the EPA’s public docket, visit the EPA Docket Center homepage at <https://www.epa.gov/dockets>.

Submitting CBI. Do not submit information containing CBI to the EPA through <https://www.regulations.gov/>. Clearly mark the part or all the information that you claim to be CBI. For CBI information on any digital storage media that you mail to the EPA, note the docket ID, mark the outside of the digital storage media as CBI, and identify electronically within the digital storage media the specific information that is claimed as CBI. In addition to one complete version of the comments that includes information claimed as CBI, you must submit a copy of the comments that does not contain the information claimed as CBI directly to the public docket through the procedures outlined in the *Instructions* section of this document. If you submit any digital storage media that does not contain CBI, mark the outside of the digital storage media clearly that it does not contain CBI and note the docket ID. Information not marked as CBI will be included in the public docket and the EPA’s electronic public docket without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 Code of Federal Regulations (CFR) part 2.

Our preferred method to receive CBI is for it to be transmitted electronically using email attachments, File Transfer Protocol (FTP), or other online file sharing services (*e.g.*, Dropbox, OneDrive, Google Drive). Electronic submissions must be transmitted directly to the OAQPS CBI Office at the email address oaqpscbi@epa.gov, and as

described above, should include clear CBI markings and note the docket ID. If assistance is needed with submitting large electronic files that exceed the file size limit for email attachments, and if you do not have your own file sharing service, please email oaqpscbi@epa.gov to request a file transfer link. If sending CBI information through the postal service, please send it to the following address: OAQPS Document Control Officer (C404–02), OAQPS, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, Attention Docket ID No. EPA–HQ–OAR–2004–0489. The mailed CBI material should be double wrapped and clearly marked. Any CBI markings should not show through the outer envelope.

Expedited Comment Review

To expedite review of your comments by agency staff, you are encouraged to send a courtesy copy of your comments, in addition to the copy you submit to the official docket, to Mr. EPA–Anonymous, U.S. EPA, Office of Air Quality Planning and Standards, Air Quality Assessment Division, Emission Inventory and Analysis Group, Mail Code C339–02, Research Triangle Park, NC 27711; telephone: (919) 541–3649; email: NEI_Help@epa.gov and include “AERR” on subject line.

II. General Information

Does this action apply to me?

Categories and entities potentially regulated by this action include:

| 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 .. | 21xxxx, 22xxxx, 3xxxxx except for 311811. | Owners/operators of facilities of: Industrial and manufacturing industries. |
| | 4247xx | Petroleum and Petroleum Products Merchant Wholesalers. |
| | 481xxx | Scheduled Air Transportation. |
| | 486xxx | Pipeline Transportation. |
| | 4883xx | Support Activities for Water Transportation. |
| | 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. |

| Category | NAICS code ^a | Examples of regulated entities |
|----------|-------------------------|--|
| | 928xxx | National Security and International Affairs. |

^a North American Industry Classification System.

^b Excluding small businesses for primary NAICS 811121.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This table lists the types of entities that could potentially be regulated by this action. Other types of entities not listed in the table could also be regulated. To determine whether your entity could be regulated by this proposed action, you should carefully examine the proposed revisions to the applicability criteria found in § 51.1 of the proposed regulatory text within this action. If you have any questions regarding the applicability of this action to a particular entity, consult the person listed in the **FOR FURTHER INFORMATION CONTACT** section.

III. Background and Purpose of This Rulemaking

Background: The EPA promulgated the Air Emissions Reporting Requirements (AERR, 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 (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 agencies¹ are required

to report emissions of criteria air pollutants and precursors (collectively, CAPs) to EPA. Required pollutants under the current rule are carbon monoxide (CO), NO_x, volatile organic compounds (VOC), sulfur dioxide (SO₂), ammonia (NH₃), PM_{2.5}, PM with an aerodynamic diameter less than or equal to 10 microns (PM₁₀), and Pb. Further, these agencies may optionally report emissions of 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 (see 40 CFR 51.1(b) and (e) of this proposed action). 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, 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 MOTO 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,

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.

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.

Purpose: The proposed amendments in this action would 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 (CAA or “the Act”). Further, the proposed amendments would ensure that communities have the data needed to understand significant sources of air pollution that may be impacting them—including potent carcinogens and other highly toxic chemicals linked with a wide range of chronic and acute health problems. 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 cooperative federalism framework provided by the CAA.

Authority: Pursuant to its authority under sections 110, 172, and the various NAAQS-specific sections of the CAA, the EPA has required the preparation of SIPs to include inventories containing information about criteria pollutant emissions and their precursors (e.g., VOC). The EPA codified these inventory requirements in Subpart Q of 40 CFR part 51 in 1979 and amended them in 1987. The 1990 Amendments to the CAA revised many of the CAA provisions related to the attainment of the NAAQS and the protection of visibility in Class I areas. These revisions established new periodic emission inventory requirements applicable to certain areas that were designated nonattainment for certain pollutants. For example, section 182(a)(3)(A) required States to submit an emission inventory every 3 years for Moderate ozone nonattainment areas beginning in 1993. Similarly, section 187(a)(5) required States to submit an

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

inventory every 3 years for Moderate CO nonattainment areas.

The EPA promulgated the original AERR in 2008 with the intent of streamlining various reporting requirements including those of CAA 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 action, 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 emission control or process equipment, (iii) the Administrator believes may have information necessary for the purposes set forth in CAA section 114(a), 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 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 that are 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 lead to confusion. Further, data from sources located within the geographic scope of Indian country (as defined by 18 U.S.C. 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 reviews pursuant to CAA section 112(d)(6), and risk reviews under CAA section 112(f)(2). EPA’s implementation of these provisions is additionally informed by federal policy on environmental justice, including Executive Order 12898, which overlays environmental justice considerations for the EPA to assess as part of such work. HAP emissions data also would 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, which requires an understanding of both toxicity and exposure. The EPA 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. 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 would assist the EPA in carrying out any provision of the CAA. Rather it illustrates how the information request

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 Env’tl. 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.

² Although there are exclusions in CAA 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.

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 offshore of the States along the Pacific, Arctic, 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.

A. Point Sources

With this action, the EPA proposes amendments that would ensure HAP emissions data are collected consistently for the benefit of communities across the country. Currently, the availability and detail of HAP emissions data vary 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. As part of these proposed revisions, the EPA is proposing changes to the AERR-specific definition of point sources that would address which sources would be required to report based on HAP emissions.

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's 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 is aware that some current State regulations have more stringent HAP reporting requirements than those proposed in this action. Similarly, EPA anticipates that future State regulations could be more stringent as well. 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.

A summary of requirements and major impacts compared to the current rule are described in three sections below: (1) proposed point source revisions affecting both States and owners/operators, (2) proposed point source revisions affecting States, and (3) proposed point source revisions affecting owners/operators.

1. Proposed Point Source Revisions Affecting Both States and Owners/Operators

The EPA proposes to require owners/operators of certain facilities (*i.e.*, "point sources" as defined by the proposed action) to report annual actual emissions of HAP directly to the EPA for the NEI, and the EPA proposes an option for States to accept the reporting responsibility on behalf of owners/operators within their State. 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 to assess local-

scale community impacts and devise solutions for high-risk areas.

For States, the proposed requirement for direct facility reporting would provide a new option not currently available under the current AERR. States may opt to use HAP data provided by the EPA through CAERS to inform their communities instead of promulgating or revising their own rules to collect that data. Alternatively, a State may opt to create or revise its own HAP emissions reporting requirements to comply with the proposed requirements of this action. Regarding CAP, States would be required to report CAP for all facilities with emissions greater than or equal to CAP reporting thresholds within their implementation planning authority.

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 EPA describes a proposed requirement and several alternatives for which small generating units would need to report, with the goal of improving characterization of emissions associated with HEDDs. The emissions from the small generating units can be significant when deployed synchronously by many facilities and can contribute to ozone formation. To allow the EPA and States to have the necessary data to improve characterization of these emissions sources and associated air quality events, the proposed amendments would require States to report daily fuel use or heat input for certain units. These proposed changes differ from the current AERR because they require daily activity data for a specific type of equipment at facilities, whereas the current AERR only requires annual emissions values or, if these small generating units are not located at a point source, no emissions reports. Under this proposed action, owners/operators of facilities within Indian country would also need to meet the same activity reporting requirements as States.

The EPA is also proposing that the definition of point sources would use the same emissions reporting thresholds for every year, such that States and owners/operators would report emissions for the same sources every year starting with the 2026 inventory year. This contrasts with the current requirements that use higher reporting thresholds for every 2 out of 3 years. This proposed requirement would allow

communities, States, and the EPA to have the latest emissions data from all facilities, know whether facilities have installed emissions controls or taken other measures to reduce emissions, and be notified as soon as possible when emissions have changed. This proposed requirement would also ensure that States and the EPA have the most up-to-date emissions data to make informed, timely decisions for regulatory and other actions.

This proposed action would additionally distinguish portable facilities from mobile sources operated solely for the functioning of one or more stationary facilities (such as mines) and would clarify requirements for both types of sources. The current AERR does not address these types of sources specifically, and as a result, while the EPA has expected these sources to be included in emissions reports as part of the current "all emissions" clause of the existing 40 CFR 51.15(a)(1), the EPA has not always received portable facility emissions or data about mobile sources operating at facilities. To improve data quality related to such sources, the EPA proposes to include portable facilities in the AERR-specific definition of point sources that are subject to emissions reporting. The EPA also proposes that mobile sources operating solely for the function of one or more stationary facilities would need to be reported with the facilities' emissions reports. This would impact both States and owners/operators of facilities that are reporting directly to EPA. The EPA additionally seeks comment on an option for how the EPA could define portable sources for reporting under this subpart.

The current AERR has ambiguous statements regarding confidential data that, in the past, have been misinterpreted by States when reporting emissions. This proposed action would clarify the AERR definition of confidential data by specifically referencing provisions of the Act and existing law that define "emissions data," identifying components such as load, operating conditions, and process data, and clarifying that such data cannot be treated as confidential by the States or by owners/operators when such data would be required to be reported by this proposed action.

The EPA also proposes to add additional required data fields for point source reporting, which would affect both States and owners/operators of facilities. First, the EPA proposes to require identification of all federally enforceable regulations that apply to each unit at certain facilities for the purpose of providing a repository

documenting the regulations a facility has determined apply to its units. Such a repository would support streamlining of various aspects of the EPA and State activities. Second, the EPA proposes to require Title V permit numbers for major sources. Third, this action proposes to require a summed activity level for fuel use from combustion sources at each facility using standard units of measure for the purpose of preventing double counting with nonpoint emissions. States have the option to provide that summed data across all facilities for which they report emissions but would need to collect that data annually from their facilities to comply with this requirement. Finally, the EPA proposes to include several new fields to require States and facilities to better specify their control devices and impacts of those controls on reducing emissions.

This action also proposes to add a requirement for location information (*i.e.*, latitude and longitude) for stack and fugitive release points, which has previously been voluntary. The release point locations are essential to correctly model and estimate risk associated with HAP. The current AERR requires only a single facility-wide location. Both States and owners/operators would be impacted by this proposed revision.

2. Additional Proposed Point Source Revisions Affecting States

The EPA proposes a new approach for States to provide emissions data for aircraft, ground support equipment (GSE), and rail yards for triennial inventory years. Many States have voluntarily provided this information for past triennial inventories, with the EPA providing landing and takeoff (LTO) data for aircraft and emissions for rail yards for State review and comment. This action proposes to require States to treat these sources as point sources and to either (1) report aircraft activity data (*i.e.*, LTO data) for some or all aircraft and emissions from rail yards, (2) report emissions for some or all aircraft, GSE, and some or all rail yards, or (3) comment on and/or accept EPA's activity data and emissions estimates.

The EPA also proposes a clarification that offshore facilities (*e.g.*, oil platforms) within State waters be reported by States when such facilities meet the proposed point source reporting thresholds included in this action. The current AERR does not specifically indicate whether offshore facilities should be included or not, but the current AERR does require States to report "all stationary sources." Under the current rule, however, the EPA has not consistently received emissions data

from States for these sources. Since the NEI is intended to be a complete dataset of all emissions sources, these omissions prevented complete information from being available to coastal communities and EPA. Therefore, this action proposes to include stationary and portable (*e.g.*, floating drill rig) offshore sources (excluding commercial marine vessel emissions) in State waters as point sources that would be reported to the EPA when such sources meet the proposed emissions reporting thresholds in this action.

3. Additional Reporting by Owners/Operators

Under the current AERR, use of the phrase “nontribal lands” in 40 CFR 51.1 may cause confusion in attempting to identify the geographic areas within a State’s borders for which the State should report emissions data. Further, the Agency does not, under the current AERR, receive emissions data from facilities located within Indian reservations except in a few cases where the relevant Indian tribe has an approved TIP or the tribe chooses to report voluntarily. This is consistent with the intended scope of reporting under the current AERR. Similarly, owners/operators of facilities operating in Federal waters are not subject to reporting. This proposal would ensure that emissions from facilities that meet the AERR emissions reporting thresholds would be reported to the EPA by owners/operators when States do not report them.

The EPA additionally proposes to require owners/operators of facilities to report the results of stack tests and performance evaluations (generally, called “source tests”) electronically to the CEDRI system when not otherwise reported to EPA. Source tests are activities that demonstrate emissions and emission rates of air pollutants from stationary sources through prescribed methods. “Electronic source test reporting” is using CEDRI to transfer the results of the tests through the internet. The EPA needs these data to develop and improve emissions factors. Many stakeholders including States and industry have previously asked the EPA to improve its emissions factors. Likewise, in 2006, EPA’s Inspector General urged the EPA to improve both emissions factor quality and quantity in its report “*EPA Can Improve Emissions Factors Development and Management.*”⁴ To implement those

recommendations, the EPA created the CEDRI and WebFIRE data systems; however, calculations to create revised emissions factors depend on test data measured at sources. By requiring reporting of these data to CEDRI, the EPA will be able to use the data systems as planned to develop and improve the emissions factors.

B. Nonpoint Sources

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.

1. Nonpoint Online Survey and Activity Data Requirements

The EPA is proposing to add a requirement for States to complete an online survey about their planned submissions for nonpoint sources so that the EPA could anticipate the States’ intentions for accepting EPA data or reporting their own data. Currently implemented on a voluntary basis, this survey greatly assists States and the EPA in the quality assurance (QA) that compares what States submitted to the EPA to what States intended to submit. The nonpoint survey also provides States a way to indicate for each emissions sector whether they accept the EPA estimates.

The EPA is also proposing to add a requirement for States to report input data for EPA’s nonpoint emissions tools and spreadsheet (hereafter referenced as “tools”). This would allow States to meet nonpoint source reporting requirements by reviewing, commenting on, or editing EPA-provided nonpoint tool inputs. As part of this proposed change, the EPA proposes that for sources with EPA tools, States can optionally report emissions, but if they chose to report emissions, States would need to include documentation of those emissions. These proposed changes differ from the current rule, which does not require the survey, emission tool inputs, or documentation, but rather requires States to report emissions. These proposed revisions should reduce burden for States when they accept EPA’s data or report input data to

nonpoint emissions calculation tools, rather than calculating and reporting emissions themselves. Furthermore, the EPA would be better equipped to perform QA in situations where State data differ from EPA tool default estimates and evaluate the cause and reasonableness of differences between State and EPA emissions estimates.

2. Commercial Marine Vessel and Locomotive Emissions Requirements

For commercial marine vessel and underway (*i.e.*, moving) 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.

3. Nonpoint Sources Reported by States and Indian Tribes

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.

Regarding how States and Indian tribes should report nonpoint sources, the EPA proposes to add a requirement for States to include total activity input⁵ (including Indian country) when reporting nonpoint data unless a State determines that an Indian tribe reports nonpoint tool inputs for Indian country that overlaps with a State’s counties. In the latter case, the EPA proposes that a State would exclude the activity and/or emissions within Indian country from the county total data reported to avoid double counting. The EPA also proposes to add a requirement that any Indian tribe that reports nonpoint tool inputs and/or emissions for nonpoint sources would report that data separately for

⁴ See <https://www.epa.gov/office-inspector-general/report-epa-can-improve-emissions-factors-development-and-management>.

⁵ Activity data varies depending on the emissions calculation approach and, therefore, the emissions source. Examples of nonpoint activity data include solvent usage for printing, number and type of wells for oil and gas production, vehicle miles traveled for road dust, and fuel consumption for nonpoint industrial, commercial, and institutional boilers.

each county that overlaps the tribe's Indian country.

C. Wildland Fires

The EPA proposes to require States⁶ to report activity data for certain prescribed fires on State, certain tribal land (*i.e.*, for tribes with TAS), private, or military lands for the purpose of data quality and completeness, specifically excluding prescribed fires that occur on non-military Federal lands. Non-military Federal lands are not included in this requirement due to the public availability of prescribed burn activity data and based on continuing discussions at the Congressionally mandated Wildland Fire Mitigation and Management Commission and Wildland Fire Leadership Council which are developing approaches for greater prescribed fire activity data tracking systems.⁷ States would report fire activity data (*e.g.*, acres burned) 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 burning activity. 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 and 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 estimate emissions from prescribed burning with a goal of improving the accuracy of emissions estimates for these activities. The EPA also proposes to add a requirement that, for the purposes of data reported to EPA, man-made grassland fires are considered prescribed fires and not agricultural fires, land clearance burns, or construction fires.

Additionally, the EPA proposes to remove the requirement for States to report data for agricultural fires, which would make such reporting voluntary rather than mandatory. Furthermore, this action proposes that if States voluntarily report agricultural fire emissions, States would report that data as day-specific event sources rather than

⁶ "States" is previously defined in Section III of this preamble to include delegated local agencies and certain tribes.

⁷ The Bipartisan Infrastructure Law provides funding for a significant increase in fuels and wildfire preparedness on Federal, Tribal, State, and private lands to reduce wildfire risk. As part of the funding, effort is being made to develop more information of prescribed fire use from these same entities.

as annual/county total nonpoint sources.

D. Mobile Sources

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.

E. Other Changes

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 to 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.

IV. Proposed Revisions to Emissions Reporting Requirements

A. Emissions Data Collection of Hazardous Air Pollutants for Point Sources

1. The EPA Needs HAP Emissions for Regulatory Purposes

The CAA HAP list includes organic and inorganic substances that Congress identified as HAP in the 1990 CAA Amendments, which Congress and EPA have revised by further legislation and administrative action. These HAP are

associated with a wide variety of adverse health effects, including, but not limited to cancer, neurological effects, reproductive effects, and developmental effects. See the Health Effects Notebook for Hazardous Air Pollutants.⁸ As explained in this section, HAP emissions data are used extensively throughout EPA's regulatory and informational programs to protect public health and inform communities of potential risks from these pollutants.

The EPA has significant evidence that the current voluntary reporting program from States is insufficient to meet these needs, even when augmented by air data collection under the TRI. This evidence is provided by EPA's work to meet the requirements of CAA 112(f)(2) for Residual Risk analysis and to promulgate numerous regulatory actions. Historically, to ensure that the EPA had sufficient emissions data to complete its work, some of these regulatory actions have required extensive one-time data collection efforts. Such intermittent data collections require affected entities to take additional time and incur additional costs due to the often hurried, non-routine, nature of the requests. Consistent with the Paperwork Reduction Act, each of these data collections allows owners/operators to review a draft, comment on it, and then they are ultimately required to comply with a one-off collection. This sporadic approach results in owners/operators having to re-engage in an ad-hoc process with new requirements and instructions each time the EPA asks for information via the **Federal Register** and otherwise; it's an unpredictable stop-and-go process that requires a certain amount of "start-up" costs (time and resources) from owners/operators to understand and respond to each new request that may be quite different from the last.

Complete, predictable, and routine HAP reporting would significantly lessen the need for these intermittent data collections, thus reducing the burden to owners/operators to react to such intermittent, one-off collections. EPA would have data about all of the units, processes, release points, and controls at facilities and their associated emissions, so that EPA would not need to implement future ad hoc efforts to gather such information. The data collection proposed here would allow owners/operators to streamline collection and reporting by having a

⁸ U.S. EPA, Health Effects Notebook for Hazardous Air Pollutants, <https://www.epa.gov/haps/health-effects-notebook-hazardous-air-pollutants>.

consistent set of data to report routinely through a standardized approach.

While this ongoing collection of emissions data may ultimately have an overall higher burden on owners/operators as compared to sporadic one-time requests, this burden is at least partially offset by the reduction in intermittent, one-off collections. EPA would have data about all of the units, processes, release points, and controls at facilities and their associated emissions.

Further, the EPA predicts that the burden associated with the collection requirements proposed here will lessen over time. The EPA recognizes that, just like for one-time data collections, owners/operators will incur a “start-up” cost of time and resources to initially understand and comply with the revised AERR requirements. However, as owners/operators continue to comply year after year, this “start-up” burden associated with compliance will diminish because owners/operators will already know the regulations. When a standardized data reporting requirement is known in advanced, it provides respondents the opportunity to plan ahead to most efficiently use their resources to obtain the information to provide in the report. This diminishing effect does not occur with one-time collections where each new collection re-triggers those “start-up” costs. The EPA predicts that the AERR approach will be more efficient in the long run. Lastly, even if the approach proposed here imposes a burden that is comparatively higher than an approach of continuous one-time collections, the EPA finds that the incremental burden is justified by all the benefits associated with this proposal that one-time collections do not afford.

In addition to the reviews required under CAA 112(f)(2), CAA 112(d)(6) requires that the EPA must complete technology reviews every 8 years for the source categories regulated under CAA 112. Having current HAP emissions data to support this ongoing technology review requirement will facilitate future technology reviews, including both (a) reviewing and, if appropriate, revising the current standards for HAP that are regulated from the source category and (b) establishing standards for any unregulated HAP emissions, as required under the decision in *Louisiana Environmental Action Network v. EPA*, 955 F3d 1088 (D.C. Cir 2020) (“LEAN”). The LEAN decision clarified EPA’s obligation to set standards for all HAP emitted from all emissions points for each category of major sources when EPA conducts a technology review and identifies a pollutant for which no MACT standard had been set.

Further, the EPA Office of Inspector General (OIG) has identified that EPA has inadequate emissions data and is late on RTR assessments. In its 2007 report, “Improvements in Air Toxics Emissions Data Needed to Conduct Residual Risk Assessments,”⁹ OIG recommended that EPA “establish requirements for State reporting of air toxics emissions data and compliance monitoring information.” In its report, OIG also indicated that EPA’s planned activities in response to the OIG report “do not sufficiently address the problems identified, and we consider the issues unresolved.” More recently, in 2022, OIG issued the report “The EPA Needs to Develop a Strategy to Complete Overdue Residual Risk and Technology Reviews and to meet the Statutory Deadlines for Upcoming Reviews.”¹⁰ While this report focuses on the time it takes for EPA to complete a review, rather than availability of emissions data, it is clear from the timetable for conducting these reviews included in the report that collecting emissions data is a limiting factor. The timeline provided shows that the time to “collect supplemental information” is between 0 to 28 months. This supplemental information includes identifying the facilities associated with a source category and collecting their emissions inventory data. The data that EPA proposes to collect here would help address the findings of both OIG reports.

Under CAA 112(c)(5), the EPA has the authority to review the list of section 112 source categories and list new source categories and subcategories according to the statutory criteria. More current and extensive HAP emissions data would allow the EPA to better identify additional source categories and subcategories for listing. Furthermore, once a new HAP is listed, the EPA would need information about which sources are emitting it in order to develop and/or review regulations to address the additional HAP.

Executive Order (E.O.) 12898 (59 FR 7629, February 16, 1994) directs Federal agencies, to the greatest extent

⁹ U.S. EPA Office of Inspector General, “Improvements in Air Toxics Emissions Data Needed to Conduct Residual Risk Assessments,” Report No. 08–P–0020, October 31, 2007, <https://www.epa.gov/office-inspector-general/report-improvements-air-toxics-emissions-data-needed-conduct-residual-risk>.

¹⁰ U.S. EPA Office of Inspector General, “The EPA Needs to Develop a Strategy to Complete Overdue Residual Risk and Technology Reviews and to Meet the Statutory Deadlines for Upcoming Reviews,” Report No. 22–E–0026, March 30, 2022, <https://www.epa.gov/office-inspector-general/report-epa-needs-develop-strategy-complete-overdue-residual-risk-and-0>.

practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, the disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations (people of color) and low-income populations. Part of the impact of EPA’s regulatory actions on communities is to improve air quality by reducing emissions of HAP and other pollutants with local impacts. Under the current voluntary HAP emissions reporting program, some States submit extensive HAP data, while other States submit few or no HAP data. While the TRI air data provide some additional information on the HAP emitted, the facility-level resolution does not provide quantitative or qualitative details about the types of stack and fugitive releases and respective emissions totals necessary for accurate risk modeling. Thus, analysis quality suffers in communities without detailed data. EPA’s proposal to collect these data would help to close the gap in understanding impacts of HAP and other pollutants on communities and will therefore assist the EPA with fulfilling the goals of Executive Order 12898.

2. The EPA Needs HAP Emissions for Risk Assessment

To be able to assess risks, the EPA develops information about pollutant toxicity and characterizes pollutant hazards under the IRIS program. Given the huge number of chemicals released to the air, it is necessary to prioritize which pollutants are investigated by the IRIS program. OAR uses information on emissions and exposures to help inform priorities for IRIS nominations, which requires detailed HAP data and release parameters that are not sufficiently available under the current voluntary program.

The EPA has developed nationwide risk information for all pollutants with the National Air Toxics Assessment (NATA) program. NATA has been available approximately every 3 years since 2002 (starting with the 1996 inventory year) and has been cited in countless publications. More recently, as part of the air toxics strategy of the Office of Air Quality Planning and Standards (OAQPS), the NATA program has been replaced and enhanced by EPA’s new AirToxScreen,¹¹ which will provide annually updated risk and emissions information for use by EPA, States, and the public. AirToxScreen

¹¹ U.S. EPA Air Toxics Screening Assessment, <https://www.epa.gov/AirToxScreen>.

supports more efficient implementation of numerous other programs and provides risk information for communities through EJSCREEN and an EPA website. As highlighted in the “Our Nation’s Air” 2022 Trends Report,¹² identifying areas of concern impacted by air toxics emissions is critical to EPA’s mission to protect human health and the environment and that sharing the latest air toxics emissions data and risk are part of this effort. When EPA has more complete, current, and high-quality emissions data, this supports improved completeness and quality of this risk information.

For compliance purposes, EPA also uses the raw emissions data to confirm that facilities are in the proper regulatory category to ensure that their inspection frequency is correctly matched to their emissions footprint. EPA staff compares NEI data to ambient data from nearby air monitors to find discrepancies between the two. If a monitor is picking up high pollutant concentration levels for a HAP and no nearby facilities are reporting emissions of that HAP, EPA may find a reporting issue or illegal manufacturing and follow up with an inspection. EPA inspectors can search the EPA’s Enforcement and Compliance History Online (ECHO) database¹³ (that includes NEI data) by emissions processes to help identify facilities of interest by industry. EPA also uses AirToxScreen and its predecessor NATA for prioritization of compliance and enforcement resources. Within EPA, compliance staff have access to the ECHO Clean Air Tracking Tool (ECATT), which includes data from many sources including AirToxScreen. This tool integrates several data sources to facilitate analysis, including searching for facilities based on cancer risk and respiratory hazard index. Likewise, the EPA regional offices and States use risk data to determine communities and facilities for review. The current voluntary HAP data collection approach has provided some of the information needed for this evaluation; however, a more comprehensive HAP emissions collection program would further enhance the prioritization by supporting more complete and more detailed risk and emissions data than are currently available.

Another use of risk information enabled by HAP emissions data is the

siting of ambient monitors. HAP emissions and risk data are used by the EPA and States to prioritize ambient monitor locations. These ambient monitors in turn inform communities about air quality in their local areas as well as support the evaluation of models that further improve available information to EPA, States, and communities.

In addition to supporting risk assessments, the data that EPA is proposing to collect provides foundational information about air emissions for other purposes across the government. For example, collecting data on air pollutants that are known cancer drivers will advance core public health goals, including the President’s Cancer Moonshot Initiative which has the goal of preventing cancer through reducing environmental exposures to carcinogens.

3. The EPA Needs HAP Emissions for Air Quality Modeling

HAP emissions data not only inform the regulatory and programmatic activities dealing primarily with these pollutants, but also provide benefits to modeling needs for implementation of the NAAQS. Under CAA sections 110, 172, 182(b) through (e), and 189(a) and (b), the EPA and States have requirements to use air quality modeling to help bring into attainment nonattainment areas that violate the NAAQS ambient air pollutant thresholds. Increasingly, the science suggests that some HAP play important roles in air chemistry leading to formation of ozone and secondary organic aerosol (SOA), a component of PM_{2.5}.¹⁴ For example, HAP such as formaldehyde, acetaldehyde, 1,3-butadiene, naphthalene, and chlorine contribute to ozone formation while other HAP such as toluene, xylenes, benzene, and ethyl benzene are important for SOA formation. In addition, some lower volatility or semi-

volatile compounds that contribute to SOA formation are HAP, such as naphthalene and benzo(a)pyrene. Having more complete HAP data will be beneficial to improving modeling and understanding of ozone and PM_{2.5} concentrations and SOA formation. The HAP data can provide the additional details needed to improve air quality modeling needed for NAAQS purposes.

As part of NAAQS implementation, the CAA specifically identifies VOCs as a precursor to ozone, and VOC is additionally a precursor to PM_{2.5}. Thus, emissions and anticipated reductions of VOC are inputs used for certain air quality modeling. VOC is a large group of individual compounds, some of which are HAP and knowledge of those detailed HAP compounds can be beneficial to air quality models that rely on the components of VOC for model chemistry. Currently, the EPA and States must make assumptions about the composition of VOC for each source using other data called speciation profiles, which are costly to collect, are not available for each source type, and can become outdated quickly as new technologies and industrial chemical formulations are used. In addition, new photochemical modeling chemical mechanisms are being developed that provide better resolution to HAP species. For example, the Community Regional Atmospheric Chemistry Multiphase Mechanism (CRACMM) explicitly simulates 1,3-butadiene and toluene and can also represent polycyclic organic matter and xylenes better than prior, commonly used chemical mechanisms. While the use of speciation profiles is useful, VOC speciation for modeling could be significantly improved with complete and accurate HAP emissions that provide details about the component VOC HAP.

As with VOCs, PM_{2.5} is a NAAQS pollutant and is currently collected from States by the AERR. PM_{2.5} is also a large group of individual compounds, some of which are HAP. Individual HAP metals are included in this group, and some of these metals are required specifically in the most recent chemical formulations used in air quality models. In addition, as with VOCs, having more detail about PM_{2.5} components would allow for increased confidence in EPA’s air quality modeling results.

The EPA estimates costs and benefits as part of Regulatory Impact Analyses (RIAs) for rulemaking to support implementation of Executive Order 12866. That benefit analysis can include the ancillary benefits of HAP reductions, even when regulations are specific to NAAQS implementation. For

¹⁴ Carter, W. Updated Maximum Incremental Reactivity Scale and Hydrocarbon Bin Reactivities for Regulatory Applications. College of Engineering Center for Environmental Research and Technology, University of California, Riverside, January 28, 20210.

Ng, N.L., Kroll, J.H., Chan, A.W.H., Chhabra, P.S., Flagan, R.C., and Seinfeld, J.H.: Secondary organic aerosol formation from m-xylene, toluene, and benzene, *Atmos. Chem. Phys.*, 7, 3909–3922, <https://doi.org/10.5194/acp-7-3909-2007>, 2007.

Chan, A.W.H., Kautzman, K.E., Chhabra, P.S., Surratt, J.D., Chan, M.N., Crounse, J.D., Kürten, A., Wennberg, P.O., Flagan, R.C., and Seinfeld, J.H.: Secondary organic aerosol formation from photooxidation of naphthalene and alkylnaphthalenes: implications for oxidation of intermediate volatility organic compounds (IVOCs), *Atmos. Chem. Phys.*, 9, 3049–3060, <https://doi.org/10.5194/acp-9-3049-2009>, 2009.

¹² U.S. EPA Our Nation’s Air Trends though 2021, <https://gispub.epa.gov/air/trendsreport/2022/#home>.

¹³ EPA Enforcement and Compliance History Online (ECHO), <https://echo.epa.gov/>.

example, the RIA accompanying the revision of an ambient standard 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 estimate the ancillary benefits of HAP reductions, and thereby help lead to better informed decision-making.

4. Proposed HAP Reporting Requirements

In previous rulemakings, the EPA has considered, but never finalized, mandatory HAP reporting to collect emissions inventories. On May 23, 2000, the EPA proposed to collect HAP emissions data (CERR; 65 FR 33268). However, the CERR proposed rule did not specify any details about how the EPA would collect that data, or even which pollutants the EPA would require to be reported. The EPA did not finalize any mandatory reporting for HAP due to comments received on the proposed rule arguing that "EPA should not include HAP reporting requirements in the final rule until the specific HAP reporting requirements were proposed" (67 FR 39602, June 10, 2002).

In response to the original AERR proposed rule (71 FR 69; January 2, 2006), several commenters encouraged the EPA to include a specific requirement in the rule for reporting HAP emissions data for title V facilities. Another commenter encouraged the EPA to include requirements for reporting of HAP from all emission sources. One commenter noted that States were attempting to provide HAP data to the EPA by relying on data collected from facilities largely on a voluntary basis, and that collection would improve if the EPA required HAP reporting. However, the EPA did not include HAP in the final AERR rule at that time. The EPA cited the existing voluntary program, stating that we believed it would be possible to continue developing and improving national level HAP inventories using a voluntary approach. We also explained that we intended to closely monitor the participation of State agencies in this effort and that, should the need arise, we would revisit the issue.

Furthermore, while the EPA has numerous regulations on industrial facilities through the National Emission Standards for Hazardous Air Pollutants (NESHAP) and other similar standards, these regulations do not typically require the reporting emissions of annual HAP. Rather, they largely require reporting of compliance information

such as stack test results. In many cases, these stack tests are not required to be tests for HAP but instead can be tests of a surrogate pollutant such as filterable PM_{2.5}. The result of the test does not estimate annual emissions but rather provides an emission rate of one or more pollutants from the source. As a result, even for these well-regulated industries, the EPA lacks annual HAP except when it is voluntarily reported or collected for the TRI.

With this action, the EPA is proposing to require the reporting of HAP from point sources, as defined by the AERR, which can be both major sources and non-major sources. For purposes of the AERR, certain non-major sources can be point sources that would be subject to the proposed reporting requirements. These can include CAA section 112(c)(3) area sources and sources that do not have a source category listing. Non-major sources would need to emit at or above the proposed thresholds in order to be subject to these proposed reporting requirements. For CAP and HAP major sources, the EPA proposes a requirement to report all HAP, which is defined by pollutants listed in CAA 112(b)(1), 42 U.S.C. 7412(b)(1) and 40 CFR 63.64(a). The EPA also proposes a requirement to report certain HAP from non-major sources¹⁵ when annual actual emissions exceed a reporting threshold promulgated by the Agency (as described in section IV.A.8 of this preamble and as listed in the proposed Table 1B to Appendix A of Subpart A). In addition to these requirements, this proposal includes maintaining the current voluntary pollutant reporting by States and industry for additional facilities and/or additional HAP for non-major sources and voluntary GHG reporting by States. Finally, while the proposal for mandatory HAP reporting is organized within the AERR structure for convenience and to limit burden via streamlining, the HAP reporting requirements are able to stand on their own separate from the CAP reporting requirements.

Requirements for HAP reporting are being proposed for two overarching reasons in addition to the other reasons discussed throughout this notice. First, the EPA has monitored the collection and reporting of HAP information from States and has found that the voluntary approach has not sufficiently provided the EPA with the point source HAP data it needs. States report to the EPA

¹⁵Non-major sources are stationary sources that do not meet the major source thresholds for criteria pollutants and HAP. Major sources require Title V permits. Criteria for these sources are provided at <https://www.epa.gov/title-v-operating-permits/who-has-obtain-title-v-permit>.

between 1 and 148 HAP per year from point sources. This proposed action would collect information on all 188 HAP from major sources and significant emissions of HAP from non-major sources. Collecting information on all HAP from major sources supports requirements of CAA section 112, which includes a definition at CAA 112(a)(1) of major HAP sources based on total HAP emissions, and which directs EPA at CAA 112(d)(1) to promulgate regulations establishing emission standards that CAA 112(d)(2) requires the maximum degree of reduction in emissions for all of the HAP subject to section 112 of the Act that are emitted from source categories of major sources.

For the 2017 NEI,¹⁶ 76 out of 85 State/local/tribal agencies reported point source HAP to EPA. These 76 agencies reported an average of 79 such pollutants. The EPA has found these voluntary reports to be insufficient and, therefore, they have been unable to meet EPA's needs for implementing CAA section 112. Because the section 112 regulatory work requires the most detailed HAP emissions data, we can reasonably conclude that the data for other HAP analysis products and needs described above are similarly incomplete. While the EPA has increasingly used TRI air emissions data to help fill reporting gaps for some uses of the NEI (e.g., national totals), these data do not have the sufficient detail necessary for detailed risk modeling and other assessment needs previously described.

Second, the EPA now has a proven infrastructure through CAERS to support centralized collection of detailed emissions data from facilities and to provide flexibility in reporting from either facilities or States. CAERS can implement the requirements of this proposed rule without undue burden on facilities or States by: (1) avoiding duplicative reporting requirements, (2) supporting consistency of data across programs, and (3) supporting States, locals, and Indian tribes that collect HAP data.

Using CAERS, the EPA is currently working to connect the CEDRI source test data collection with the estimation of emissions data included in this proposal. This proposal does not require any new monitoring or source testing, rather the EPA is proposing that owners/operators use the "best available" estimation techniques (see section IV.I.6 of this preamble for more details). Through planned CAERS

¹⁶U.S. EPA, 2017 National Emissions Inventory, <https://www.epa.gov/air-emissions-inventories/2017-national-emissions-inventory-nei-data>.

enhancements, owners/operators would be able to pull in their source test data more easily, to facilitate this approach for using the best available data to estimate emissions. If a source is already required to report compliance information, such as stack testing, due to an existing requirement separate from the AERR, such as a NESHAP, then this proposal is that the owner/operator would use that existing information, if appropriate, for purposes of estimating annual emissions reported under the AERR. Similarly, if the source already generates certain data for the TRI, then EPA is proposing that the source utilize that existing data for purposes of the AERR.

5. Collecting HAP Annual Emissions

Based on the numerous needs for HAP data described above, the EPA is considering how to obtain the HAP emissions data that the Agency needs to carry out the requirements of the CAA, while also seeking to minimize burden on States, by investigating whether HAP emissions should be reported by States, by owners/operators of facilities, or by some combination. The EPA's primary proposal would use a combined approach for reporting HAP emissions. First, this action proposes that owners/operators of facilities would be required to report facility inventory data and HAP emissions directly to the EPA via CAERS. This proposed approach would include reporting by facilities both within States and within Indian country. Second, this action proposes an option that would allow a State to report HAP data to the EPA on behalf of the owners/operators of facilities in the State. However, to implement this option, the EPA also proposes that States choosing to report HAP emissions on behalf of sources would be required to receive EPA approval for State regulations that implement HAP reporting requirements. For a State to receive approval, State regulations would need to meet any finalized requirements based on this proposed action (e.g., by reporting at least the same information from the same sources on the schedule required for owners/operators). State regulations could include additional HAP reporting requirements that exceed the EPA requirements. Additional details on the approach for transfer of responsibility from owners/operators to States is proposed below.

The current AERR supports voluntary reporting of HAP by States. To date, the EPA has observed the benefit of State oversight given the States' authority to issue and manage permits and associated emissions limits. The EPA

also recognizes the additional burden that would be placed on States if they were required to report HAP, especially for those States that are not already requiring such reporting from sources. Further, States that are already collecting HAP data may need to revise their current reporting rules and/or develop new collection mechanisms for HAP if their current programs are not meeting any final HAP reporting requirements that are promulgated in this rulemaking. This burden could include managing reports from more facilities, maintaining more data, and implementing a more complex annual collection process than a program that requires CAPs alone. The EPA recognizes that States will have differing capacities to include HAP emissions collection as an additional responsibility.

In formulating this proposal, the EPA is considering the significant differences between CAA Part D, with many emission data provisions required of States, as compared to other provisions in CAA Part A under which the EPA has regulated HAP. The current AERR requires emissions reporting only for CAPs but does not specifically include a requirement for States to have reporting rules in place. This is because for CAPs, the CAA has set up a coregulator paradigm by which State emissions reporting rules are reviewed and approved by the EPA as part of infrastructure and other SIPs. In this way, the EPA can ensure that State regulations meet the various emissions reporting requirements of the AERR. The CAA does not provide a similar paradigm for HAP emissions data collection. Thus, EPA's proposed solution addresses these differences to provide an implementation that aligns with the Act.

Another consideration is the available technical methods by which the EPA can gather data from States and/or from owners/operators. Under the current AERR, States submit data through the Central Data Exchange (CDX) to the Emissions Inventory System (EIS), and that approach is expected to continue under this proposed action. In addition, the EPA and States have developed CAERS as one approach for supporting State collection of emissions in a way that can reduce the burden on some owners/operators of facilities for shared reporting of emissions to the TRI program.

The EPA is considering that some owners/operators of facilities are already obligated to report HAP to the TRI, though with less detail than is needed by the EPA for risk assessment and other purposes cited in this

proposal. Because CAERS offers owners/operators a means to report air emissions to States, NEI, and TRI, EPA's experience leads the Agency to anticipate that CAERS would ultimately lessen the reporting burden on owners/operators. The EPA is aware that facility definitions occasionally differ among the TRI program, the NEI, and the State programs. Ongoing work by the EPA is expected to address the challenges posed by differing facility definitions across emissions collection programs, which is related to the Cross-Program Identifiers Option described in section IV.I.17 of this preamble.

The EPA is also considering that there are numerous State HAP emissions collection programs with differing requirements. Comparing such programs reveals that they collect different data fields, have different emissions reporting thresholds, and collect different pollutants. Companies that operate facilities in multiple States and report emissions data from a central part of the company could have to comply with numerous different requirements depending on the State. Additionally, the EPA is considering that owners/operators would face additional challenges if a State required owners/operators to report HAP, but the State requirements did not match EPA requirements. In this case, owners/operators could be faced with the burden to report differently both to the State and to EPA. Indeed, this situation already exists with respect to State HAP requirements and EPA requirements for TRI reporting.

By proposing CAERS as the reporting system for owners/operators of facilities, the EPA also provides States a choice about the degree to which the State will take on additional burden. States may choose to participate voluntarily in review of HAP data provided by owners/operators to the EPA rather than implement their own reporting requirements. States may alternatively choose to implement HAP reporting regulations that match (or go beyond) EPA's requirements.

This proposed action does not eliminate the possibility that industry may face a duplicative reporting requirement for the State. States are free to use a data collection approach of their choice and implement regulations that meet State needs. For example, if a State chooses for owners/operators of facilities to continue to report to a State system and those facilities are also required to report HAP to the EPA via CAERS, then duplication could exist. This duplication could take the form of requiring the same HAP emissions data be reported via two separate collection

mechanisms to both the State and to EPA. This proposal provides mechanisms to avoid duplicative reporting requirements, but the Agency is aware that it may not completely eliminate the possibility of duplicative requirements because it provides States choices in how they comply with the proposed requirements. The EPA seeks comments on how we might reduce or eliminate the possibility of duplicative requirements.

While CAERS provides a way to help eliminate the possibility of duplicative burden on owners/operators, the EPA is not proposing to require that CAERS be used by States at this time. To avoid duplicative reporting burden for the owners/operators of facilities for which the associated State is collecting HAP emissions, a State would need to choose to participate in CAERS using one of the supported approaches. First, a State may choose to have owners/operators report data through CAERS to the EPA and then use CAERS to review and/or transfer the data to the State's own data system. Second, a State may choose to work with the EPA to build a direct connection between the State's data system and CAERS, so that data transfers can happen even more easily. Third, a State may choose to adopt CAERS as their emissions data reporting system.

The EPA is considering the additional complexity that would be created under a requirement in which owners/operators reported HAP directly to the EPA while States reported CAPs to EPA. Furthermore, the EPA expects additional complexity because some State requirements would, as they do under the current AERR, collect more facilities and/or pollutants than EPA requirements that may be finalized under this proposed action. To be able to support this complexity, CAERS would share the "facility inventory" among EPA, States, and owners/operators to provide the collection of facilities and their components for which emissions are reported. These components include units, processes, release points, control devices and associated identification codes and parameters. The EPA is aware that often the identification codes for the components of the facility inventory are different between the State and the facility reporting the data. Thus, the EPA and State implementation of any finalized data collection approach would consider and address these challenges. The EPA requests comments that offer suggested approaches for sharing facility inventory data between the EPA and States.

The EPA is considering whether it would be feasible to allow States to report only some of the required HAP, while sources retain the obligation to report the remaining HAP. EPA's experience suggests that such an approach would be too complicated to implement because it would require EPA and States to track reporting responsibility individually for the hundreds of required pollutants. The approach proposed by the EPA provides for a simpler tracking approach with just two categories of pollutants: "CAP" and "HAP." This straightforward approach helps ensure that the EPA and States will know whether the State or owner/operator is expected to report HAP for a given facility and inventory year. The approach also allows the EPA to administer the reporting program more robustly, including assessing completeness of data submissions and compliance with the proposed requirements. This proposed approach also makes it easier for owners/operators and States to know which party is responsible for reporting each pollutant to EPA.

The current AERR includes voluntary reporting of HAP, air toxics, and greenhouse gases. As just described, the EPA proposes that the HAP reporting would become mandatory under any final version of this proposed action and proposes to retain voluntary reporting by States as an option in other cases. For example, States would be able to continue to report any pollutant for facilities not required to report for HAP under any final action. Additionally, for any point sources, States would be able to report any other pollutant not required by any final version of this proposed action, such as other air toxics that are not HAP (e.g., Tert-butyl Acetate) and greenhouse gases, provided that the pollutant is supported by EPA's electronic collection approach.

In addition to the proposed policies just described, the EPA is considering an alternative (Alternative A1) that would *not* collect data directly from owners/operators of facilities within the geographic scope of a State's implementation planning authority but would only collect such data from States. Such an approach would reduce complexity, but also would not provide States flexibility in their implementation approach and would cause additional burden for all States if the EPA finalizes mandatory HAP reporting. To implement such an option, the EPA would change the proposed regulation as follows: remove owner/operator requirements of proposed § 51.25(a), remove the HAP reporting application of proposed § 51.1(d), and

modify proposed § 51.15(a)(2) to eliminate the qualifier "if the EPA has approved a HAP reporting application as per § 51.1(d)(2) of this subpart." The EPA requests that commenters provide input on Alternative A1.

In addition, the EPA is considering a second alternative (Alternative A2) of relying *only* on owner/operator reporting for HAP and not including an option for States to report on behalf of owners/operators. The existing state-reporting paradigm in the current AERR is a valuable approach that would continue under this alternative for CAPs to ensure the collection and sharing of data needed for NAAQS implementation under CAA Part D. For HAP, the EPA recognizes the benefit of States' roles in collection of HAP emissions and, for that reason, has proposed to include State reporting as an option. To implement Alternative A2, the EPA would remove the HAP reporting application of the proposed § 51.1(d) and remove the proposed § 51.15(a)(2). In addition, under this alternative, States would continue to report Pb for point sources meeting any of the CAP emissions reporting thresholds (including Pb), while owners/operators would report Pb for other sources that do not meet the CAP Pb reporting threshold but are otherwise subject to the proposed Pb reporting requirements as a HAP.

Because the primary proposed approach would require owners/operators to report to the EPA using CAERS, the EPA anticipates that some States will choose to participate in the CAERS program. In addition, the EPA has already received notifications from States of their intent to adopt CAERS in some form, and the EPA recognizes a need for managing that process so that the EPA and States will have sufficient time to transition to CAERS in advance of emissions data collection. To address these considerations, the EPA proposes that States voluntarily adopting one of the CAERS workflows notify the EPA within 2 months before the beginning of the first inventory year for which a State intends to use the CAERS workflow. For example, for the 2024 inventory year, a State would notify the EPA by November 1, 2023. This timing would allow the EPA and the State about 16 months to integrate the States' needs and data to CAERS in preparation for the start of the CAERS reporting period for that inventory year by February of the year after the inventory year.¹⁷ For

¹⁷ The availability of each CAERS release to date has been during February of each year, with CAERS

example, for the 2024 inventory year, the EPA would make available CAERS no later than February 28, 2025, for owners/operators to report emissions data. While such a notification is included in the proposed rule as a recommendation (*i.e.*, “should”) rather than a requirement, if a State does not notify the EPA in advance of that date, the EPA may not be able to accommodate the State for CAERS use until the following inventory year.

6. State Application for Voluntary HAP Reporting Responsibility

With HAP emissions reporting by either owners/operators or by States for a particular inventory year, it is necessary that this proposed action include provisions to ensure that EPA, States, and owners/operators all know which party is expected to report HAP emissions to EPA. Under this proposal, a State could choose to report for all owners/operators within the State who would have to report HAP. This proposed approach allows for States that already report HAP to continue to do so, but also avoids a burden increase for other States while making CAERS available to further reduce burden for States reporting HAP.

A clear and documented transfer of responsibility from owners/operators to a State is necessary when a State elects to report HAP, and the EPA is considering how best to ensure that the State regulations provide an adequate substitute for its own requirements in this situation. Similarly, this proposed action includes an approach to transfer responsibility from a State back to sources in the event a State no longer meets the requirements or intends to stop reporting on behalf of owners/operators.

The EPA is considering how States should document their intent to meet this proposed action’s HAP reporting requirements. One approach under consideration could be to have States simply notify the EPA of their intent, and if the State did not fulfill a reporting requirement, require the facility to report any missing data to EPA. This approach has the benefit of more flexibility, but implementation would be very challenging because it would not be clear which party would be obligated to report which data. Further, turning to owners/operators to report when States have missed the requirement would delay the data transmission to EPA.

To provide the EPA with evidence of a State’s intent and to ensure a clear

transfer of responsibility from an owner/operator to a State, the EPA proposes to require that a State choosing to report on behalf of its owners/operators adopt EPA’s requirements, or the equivalent, into the State’s regulations. This proposed action also specifies the process for the transfer to occur, including State submittal of its HAP emission collection program to the EPA for approval. When a State submits its program, the submittal would reference the State regulation and explain how it meets all provisions of EPA HAP reporting requirements. Without a sufficient State regulation, the EPA would not be able to approve a State to report HAP emissions on behalf of owners/operators. The EPA recognizes sufficient time is required for changes to State regulations, which informs the proposal of 2026 as the first inventory year that would require HAP reporting by owners/operators within States.

The EPA proposes that the geographic scope of a State regulation requiring HAP emissions data should be consistent with those lands covered by the State’s Infrastructure SIP (EPA understands this scope to be synonymous with the relevant State’s implementation planning authority). This proposed approach stems from the current structure of the AERR and this proposal’s approach to continue States’ reporting of CAP emissions data for sources located within this geographic scope. The intent is to create clarity regarding which parts of a State’s geographic boundaries would be included for HAP reporting by the State under this proposal, and the EPA’s understanding of the State’s authority would generally be the same for sources of CAP and HAP emissions. Once a State is approved to report HAP emissions on behalf of the owners/operators of facilities located within the geographic scope of the State’s implementation planning authority, then the State becomes the responsible party for complying with the requirements of the AERR for those sources; the EPA would no longer consider those owners/operators to be the party responsible for compliance.

To formalize the transfer of responsibility for reporting after the completion of the process described above, the EPA would issue a letter to the State indicating that the State is approved to submit HAP reports on behalf of owners/operators. Further, to provide a means for owners/operators to determine whether their State has assumed the responsibility for reporting, the EPA would post that letter on a website that would be maintained for the purpose of communicating which

States are responsible to report HAP on behalf of owners/operators for each inventory year.

The EPA additionally proposes to require a State seeking approval to submit its HAP collection program to the EPA by March 31 of the first inventory year for which the State intends to report emissions (*e.g.*, by March 31, 2026, for the 2026 inventory year). This timing is designed to be at least one year in advance of the deadline proposed for owners/operators to report emissions directly to EPA. It provides sufficient time for the EPA to review the State application, the State to revise the application if needed, and the EPA to act on the State submittal. A State could still submit after this deadline but doing so would likely mean that the transfer of authority would not happen in time for the next reporting period. A delayed application would simply delay when the State could start reporting if approved. Once the EPA provides HAP reporting approval, the State would be obligated to fulfill the HAP reporting requirements for subsequent inventory years. While the EPA will make every effort to review applications in time for the desired inventory reporting year, there is no guarantee that the EPA will complete the review in time to meet the States’ wishes.

The EPA would notify States as expeditiously as possible regarding EPA’s response to the State’s application, any needed adjustments, and post final decisions on the EPA Air Emissions Inventories website. This website publication would ideally be made by December 15 of the inventory year, but the date could be earlier or later than that depending on circumstances. This target date is intended to provide sufficient time for owners/operators to adjust plans and obtain training for any new reporting systems. Since States start collecting data within months of this date, the EPA expects States would have already made updates to their data collection system to comply with their new regulatory requirements in advance of this date in anticipation of approval.

7. Review and Revisions to HAP Reporting Responsibility

The EPA proposes to require an EPA review of previously issued HAP reporting approval when: (1) a State or the EPA revises emissions reporting requirements for any emissions data element affecting HAP (including the facility inventory); or (2) the EPA is made aware of any discrepancies between EPA requirements and either (a) what a State requires from facilities

or (b) what a State has reported or intends to report. A State or the EPA could initiate a review by informing the other party that such a review is necessary. Any revised submissions by a State on its HAP collection program would need to meet the same March 31 deadline as for initial applications. A review of a State HAP reporting program could result in a revocation of approval to report.

The EPA proposes that HAP reporting approval for a State would continue to apply for subsequent inventory years unless the EPA revokes the reporting approval and transfers responsibility back to owners/operators. As with reporting approval, this revocation would be made via letter from the EPA to the state. The letter would be posted on the same website previously described to document which entities have reporting responsibility for which inventory years.

In addition, the EPA proposes an approach for how a State, having previously been approved to report on behalf of owners/operators, could elect to revert HAP data reporting back to owners/operators. To initiate such a transfer, the EPA proposes that a State would need to notify the EPA in writing no later than November 1st of the year before the inventory year. For example, if the State intended for reporting to revert to owners/operators for the 2027 inventory year, the State would be required to notify the EPA by November 1, 2026. This timing would allow the EPA sufficient time to update CAERS to incorporate the additional owners/operators and their facilities. While the EPA will make every effort to review requests to revert responsibility to owners/operators in time for the desired inventory reporting year, there is no guarantee that the EPA will complete the review in time to meet the State's wishes. If approved by EPA, a request to revert responsibility to owners/operators would result in a revocation letter as described above.

8. Expansion of Point Source Definition To Include HAP

The current AERR defines point sources for reporting to the EPA by States based on Table 1 to Appendix A of this subpart using PTE reporting thresholds for CAPs. To implement collection of HAP emissions, the EPA would need to determine criteria to specify which facilities would need to be reported by States and owners/operators as point sources for HAP. For the reasons discussed in this section, the EPA is proposing at 40 CFR 51.50 to expand the AERR-specific definition of point sources to ensure the

appropriate facilities would be included for HAP reporting purposes.

EPA first evaluated using the current AERR's CAP PTE reporting thresholds to define point sources. The EPA is not proposing this approach because there is no reasonable expectation that using these reporting thresholds to define point sources for HAP reporting would capture all sources with significant HAP emissions from a public health perspective. Such an approach could result in an incomplete reporting approach that would limit EPA's ability to obtain all needed HAP data. For example, hexavalent chromium is a component of PM_{2.5}, so using the current AERR PTE threshold for PM_{2.5} would result in a 100 tons per year (tpy) PTE threshold for chromium. However, hexavalent chromium has been shown to cause significant public health risks at levels less than 100 pounds.¹⁸ Given this example and others like it, using the current AERR emissions reporting thresholds would be insufficient to fulfill the goals of this proposed action. By contrast, the EPA expects that two remaining approaches would provide EPA emissions data to support our public health mission: (1) collecting data from all facilities emitting any level of HAP or (2) setting specific HAP facility-wide emissions levels above which owners/operators would need to report.

To evaluate the approach of collecting data from all facilities emitting any level of HAP, the EPA considered the practical implications of collecting HAP data from all sources, specifically looking at the number of facilities that would be affected from certain common activities based on the 2017 Economic Census.¹⁹ Some examples of emissions sectors with many facilities that emit some level of HAP include restaurants (583,400), gas stations (112,600), and automotive repair and maintenance (162,000). Under the current AERR, EPA requires reporting of about 12,400 facilities as point sources. Further, States voluntarily submitted about 49,500 point sources for the 2017 NEI and about 59,800 for the 2020 NEI. If EPA now proposed to collect emissions from all facilities emitting any HAP, such a vast expansion could overwhelm

¹⁸ See Chromium Electroplating NESHAP rule: <https://www.epa.gov/stationary-sources-air-pollution/chromium-electroplating-national-emission-standards-hazardous-air> proposal results (FR 65068, October 21, 2010), which found a maximum individual risk of 70-in-1 million from 33 lbs of hexavalent chromium emissions.

¹⁹ U.S. Census Bureau, 2017 SUBS Annual Data Tables by Establishment Industry, <https://www.census.gov/data/tables/2017/econ/subs/2017-susb-annual.html>, May 2021, Excel file "us_state_naics_detailedsizes_2017.xlsx".

both the States' and the EPA's abilities to manage the efforts effectively.

Further, an expansion to all facilities emitting any level of any HAP may cause undue burden on facilities that each emit a very small amount of HAP. At this time, the EPA estimates emissions from such sources as nonpoint sources on a county-wide basis. For example, for gas stations, the EPA estimates nonpoint emissions using the MOVES model for Stage II refueling from storage tanks to vehicles and data consistent with MOVES for Stage I refueling from tankers to storage tanks.²⁰ For commercial cooking occurring at restaurants, EPA purchases data about the number of restaurants in each county and uses other data about food usage along with emission factors to estimate emissions.

Based on these examples, the EPA does not now intend to require all emitters of HAP to report emissions at any level. In addition to the burden on the many small establishments, EPA and State resources would be diverted away from focusing on the more critical emitters due to the sheer volume of owners/operators that could be required to report without a more tailored approach. Such a tailored approach is consistent with CAA section 112, which provides the EPA with flexibility in setting requirements for area sources, which emit HAP at less than major source levels. So, it is appropriate for the EPA to consider how best to gather data about HAP emissions at those levels.

The EPA is proposing to set new reporting thresholds for HAP, above which owners/operators of facilities would need to report emissions. The EPA is considering the following factors in defining reporting thresholds: (1) existing thresholds such as the major source definition and reporting thresholds for the TRI; (2) which pollutants should be reported; (3) the degree of human health impact on communities caused by differences in toxicity of pollutants; and (4) a desire to focus data collection efforts on facilities with the potential to cause significant and ongoing impacts while avoiding less beneficial reporting by many small, lower impact facilities. Each of these considerations is described in the paragraphs below.

Factor 1: For existing thresholds, CAA section 112 provides the definition of HAP major sources as the potential to

²⁰ U.S. EPA, 2020 National Emissions Inventory, Technical Support Document, March 2023, EPA Document number EPA-454/R-23-001, <https://www.epa.gov/air-emissions-inventories/2020-national-emissions-inventory-nei-technical-support-document-tsd>.

emit 10 tpy of any HAP or 25 tpy of any combination of HAP. The EPA must also address emissions of all HAP in its actions to regulate major sources. In addition, major sources are already well versed in the regulatory requirements under which they operate, and many of these sources also must report to the TRI program. For these reasons, a logical and reasonable approach for a minimum requirement would be that major sources would report all HAP to be consistent with the regulatory programs and requirements that the EPA seeks to meet.

In addition to the emissions thresholds associated with the major source definition, the EPA is considering reporting thresholds set with the requirements for TRI. That program has reporting criteria based on the number of full-time employees; primary NAICS; chemicals a facility manufactures, processes, or otherwise uses; and activity levels. As a result, the TRI reporting thresholds are not based on facility air emissions; therefore, those thresholds have less relevance for this proposed action. For many reasons including emissions controls that reduce emissions, the amount of a HAP emitted to air is very different from the amount manufactured, processed, or otherwise used by a facility. For this reason, the TRI program's reporting thresholds are not being proposed as the primary approach for setting reporting thresholds for non-major sources under this subpart. A benefit to this approach is that any data that would be collected under this action would likely include sources not reporting to the TRI program and would fill gaps in the agency's data collection.

Factor 2: The EPA also is considering which pollutants should be reported. As previously described, a policy under which major sources to report all HAP is most supportive of EPA's needs for HAP data. For sources other than major sources (also known as "area sources" under CAA section 112 and hereafter referred to as "non-major" sources), the EPA is considering both whether to require air toxics²¹ other than listed HAP and which HAP (or other) pollutants should be reported.

Regarding air toxics other than listed HAP, the EPA is considering two possible approaches: (1) requiring air

²¹ Although it has become common practice to use the terms "air toxics" and "hazardous air pollutant" interchangeably, air toxics is a broad term that includes all compounds of some recognized toxicity and is not limited to those HAP identified by the CAA and EPA HAP listings. For example, a more extensive listing of air toxics is included by TRI-listed chemicals, available via the TRI website at <https://www.epa.gov/toxics-release-inventory-tri-program/tri-listed-chemicals>.

toxics that are already required by States and (2) requiring air toxics that are required by the TRI program. Either of these approaches would provide additional detailed data for the EPA to analyze air toxic emissions in the context of listing new HAP. Both approaches also would constrain reporting to pollutants that are already being collected, which would have a lower burden than other conceivable approaches. In the case of an approach based on TRI air toxics (called chemicals by the TRI program), additional burden beyond a State-based approach would be incurred by owners/operators because those owners/operators are currently reporting facility total data to TRI and would have to report more detailed data to the NEI. On the other hand, if an owner/operator is already reporting to TRI, then the incremental effort for such a facility is lower when compared to a facility not reporting air toxics data at all, because the aggregated information is currently collected and reported.

For the first approach (*i.e.*, requiring States to report additional air toxics that they already collect), the EPA observes that such data are largely being submitted voluntarily under the current AERR. Furthermore, since different States collect different air toxics, it would be challenging for the EPA and owners/operators to keep track of State requirements to ensure compliance with a Federal rule that relied on State rules for defining what pollutants were required by that State. In addition, EPA's need for other (non-HAP) air toxics data is not currently as significant as the need for HAP data because the use of the additional air toxics is largely limited to consideration of listing new HAP. Also, this more limited need for the data is already met to some degree by the facility total data from TRI and from voluntary reporting by some States. Based on these considerations, the EPA is not proposing to use State requirements to set the required pollutants for reporting by owners/operators (*i.e.*, beyond the HAP proposed for collection).

EPA is also considering using the required TRI chemicals to determine which pollutants should be reported under the AERR. As described above, this proposed action envisions that States could apply for approval to report HAP on behalf of the owners/operators of facilities who would otherwise report emissions data directly to EPA. If the EPA implemented a requirement that all chemicals required by TRI would also need to be reported to the NEI, States choosing to report HAP would need to revise their emissions reporting rules

not only to collect HAP, but to also collect the additional air toxics as well. Given the more limited need for other air toxics data besides HAP at this time (*i.e.*, primarily for considering listing as HAP), EPA's current assessment is that the additional burden on States that choose, on behalf of owners/operators, to report all air toxics reported to TRI is not warranted in these proposed revisions.

Another aspect of this factor is that some pollutants may be added to or removed from the list of HAP over time. For major sources, any new HAP would be required to be reported and any exempted HAP would no longer be required if a policy requiring all HAP were to be finalized based on this proposed action. For non-major sources, however, a newly identified HAP would require an emissions reporting threshold to be set through future regulatory revisions.

Factor 3: The EPA is also considering the degree of human health impact on communities as a factor in setting emissions reporting thresholds. The focus of such reporting thresholds is to ensure that non-major sources that have significant potential health impacts are included in the emissions reporting. A reasonable approach for all pollutants and facility types is to consider estimated risk based on the available NEI HAP emissions that have been voluntarily reported by States or included from the TRI program. To develop and assess risk-based reporting thresholds, the EPA used the data available from the 2017 AirToxScreen.²² EPA understands that there are limitations to be considered when looking at these results, including data gaps due to voluntary HAP reporting and TRI data available only for certain facilities. These limitations are described as part of the AirToxScreen limitations website²³ as well as the technical documentation available with the latest AirToxScreen results.²⁴ Given these limitations, the EPA has developed an approach that would use the available data in a way to lessen any impacts of incomplete data.

The approach taken to develop the proposed reporting thresholds is fully documented in a separate Technical Support Document (TSD)²⁵ and is

²² The EPA 2017 AirToxScreen, <https://www.epa.gov/AirToxScreen>.

²³ U.S. EPA, AirToxScreen Limitations website, <https://www.epa.gov/AirToxScreen/airtoxscreen-limitations>.

²⁴ U.S. EPA, AirToxScreen Technical Support Documentation, <https://www.epa.gov/AirToxScreen/airtoxscreen-technical-support-document>.

²⁵ U.S. EPA, Technical Support Document: Revisions to the Air Emissions Reporting

briefly summarized here. First, the EPA modeled air quality pollutant concentrations around facilities and post-processed those results to use only concentrations no closer than 100 meters from each emission point within the facility. This 100-meter approach avoids overly high concentrations that can occur within the “fence lines” of facilities. “Fence line” is a phrase used to denote the outer perimeter boundary of the land on which a facility operates. Typically, members of the public would not be exposed to concentrations that exist within the fence line. Both major and non-major facilities can vary in land coverage, and this approach is an approximation that assumes that 100-meters is an adequate distance between an emission point and the associated fence line for purpose of this analysis. In doing so, EPA has avoided including high concentrations of HAP that can occur within the fence line of major and non-major sources and instead focuses on concentrations to which the public would more typically be exposed. In this analysis, about 95 percent of the distances between emission release points and the associated location of maximum risk from the release point was between 100 and 2500 meters, and the remainder were even farther away. The EPA used the resulting modeled concentrations to compute cancer risk estimates using pollutant-specific unit risk estimates (UREs)²⁶ and other health impacts (e.g., respiratory, neurological) with the reference concentration (RfC) for the most impacted organ system. Generally, the EPA used the same UREs and RfCs to calculate cancer risk and non-cancer hazard index (HI) as are currently used in other EPA regulatory actions, and the TSD provides exceptions to that general approach.

Using the cancer risk and HI estimates, the EPA calculated the level of emissions (“adjusted emissions”) that would be needed to cause one in a million risk and/or a 0.5 HI for each release point and HAP at all facilities in the 2017 data. This calculation is possible because the cancer risk and HI results from the modeling performed can be scaled linearly based on

emissions. To guard against including release points and pollutants that contribute very minor risk to the overall facility risk, the EPA excluded any release point/pollutant combination that contributed to less than 20 percent of the cancer risk and HI in the 2017 modeled estimates for the associated facility.²⁷ The emissions scaling approach allows for the large variety of stacks and fugitive releases with varied parameters to contribute to the information with which the EPA could develop emissions reporting thresholds. Dropping the release point/pollutant combinations that contributed less than 20 percent of the cancer risk and HI also removes the smaller sources from the data, which avoids including in the analysis those types of emissions within facilities that may be less consequential to overall cancer risk and HI at those facilities. Rather than rely on a single facility or selected facilities, the approach provides for a distribution of possible emissions reporting thresholds so that the EPA can ensure that emissions reporting thresholds are both robustly based on available data and not overly low causing undue burden.

The EPA evaluated several approaches for using the distributions of adjusted emissions to set an emissions reporting threshold. Ultimately, the EPA settled on the 10th percentile of the adjusted emissions. Before arriving at this conclusion, the EPA evaluated the distributions of adjusted emissions data by using histograms. Both the raw data and log-transformed data were evaluated. While a handful of the log-transformed distributions approximated a normal distribution, most of the distributions had a significant high value bias or low value bias. Because most histograms did not appear normally distributed, the EPA has chosen not to use an approach that would rely on standard deviation from the median of adjusted emissions. The EPA also evaluated using the median values of the distributions of adjusted emissions to set an emissions reporting threshold, but these median values were often several orders of magnitude higher than emissions levels estimated to cause significant risks based on the 2017 Air Toxics Data Update.

In reviewing the range of values from the distributions of adjusted emissions, the EPA determined that the 10th percentile of the adjusted emissions provided a reasonable reporting

threshold for each pollutant. Percentiles below that level too often approached the minimum emissions levels causing risk in the 2017 Air Toxics Update, and percentiles above that level may not be rigorous enough to ensure that the EPA collects sufficient data to be protective of human health.

The EPA is also considering how to collect data from non-major facilities that have the potential to cause significant and ongoing impacts without requiring many smaller, lower impact facilities to report. As illustrated by the previous example of gas stations, some emissions sectors tend to have many small individual sources that can be included in the NEI as county total emissions rather than be included as point sources. To tailor reporting for non-major sources to specific industries, the EPA analyzed the available 2017 NEI HAP emissions data to assess the contribution of emissions from each NAICS code to the total point source emissions for each pollutant. The EPA applied a threshold of 1 percent contribution by NAICS grouped to the first 4 digits of the NAICS code for each pollutant. The EPA set this 1 percent threshold to be a conservative approach to identify NAICS-pollutant combinations for consideration in any proposed policy approaches before further reviewing each NAICS for relevance in supporting objectives of this proposed action. By merging the 4-digit NAICS with the full list of NAICS codes, the EPA created a short-list of NAICS-pollutant combinations of interest.

The EPA further excluded a NAICS-pollutant combination if: (1) the NAICS is not currently widely reported as point sources by States for other reasons and either (2) the NAICS is in an agricultural production sector or a retail sector more likely to contribute emissions from many small sources that would better be captured as nonpoint emissions, or (3) the NAICS is in a service sector (e.g., advertising) that is not expected to include significant pollutant emissions. Some NAICS were specifically included when they were used for activities that emit significant amounts of high-risk pollutants such as ethylene oxide or hexavalent chromium. With this approach, the EPA is attempting to strike an appropriate balance between the agency’s need for information with the burden that reporting requirements impose on owners/operators and/or States. While the EPA utilized its technical discretion to exclude these NAICS-pollutant combinations at this time, the agency recognizes that it may be appropriate to revisit these exclusions in the future.

Requirements (Proposal), April 2023, available in the docket for this proposal.

²⁶ For assessments of HAP, the EPA generally uses UREs from EPA’s Integrated Risk Information System (IRIS). For carcinogenic pollutants without IRIS values, we look to other reputable sources of cancer dose-response values, often using California EPA (CalEPA) UREs, where available. In cases where new, scientifically credible dose-response values have been developed in a manner consistent with EPA guidelines and have undergone a peer review process like that used by the EPA, we may use such dose-response values in place of, or in addition to, other values, if appropriate.

²⁷ More information on EPA’s approach to set risk-based emissions reporting thresholds is available in Section 3 of the TSD for this proposal. Section 3.1 of the TSD further addresses issue of dropping some data values as part of establishing proposed thresholds.

To understand the impact of any potential reporting thresholds, the EPA has estimated the number of additional non-major sources from the 2017 NEI that would have been included for mandatory HAP reporting had the EPA compiled the 2017 NEI using HAP reporting thresholds based on the 10th percentile thresholds and NAICS selection approach described above in addition to special threshold adjustments proposed in section IV.A.9. This analysis showed that about 115,000 non-major sources could be added to reporting requirements that currently affect about 13,400 major sources. In making these estimates, the EPA has made numerous assumptions that would tend to overestimate the number of facilities that would need to report, to provide conservative estimates for purposes of burden estimates. The EPA estimates the actual number of facilities to be lower. More information on this analysis is available in the TSD for this proposal.

Additionally, while owners/operators and States would be newly required to report for more facilities, States voluntarily reported HAP for the 2017 NEI (and therefore collected HAP from owners/operators largely via State requirements) for about 59,000 facilities, which is about 46% of the approximately 129,500 facilities EPA estimates would report under this proposal rule. As a result, the incremental burden increase of EPA's HAP collection approach would be lower than if all facilities needed to be newly reported under the proposed AERR revisions. In the cases in which a State does not choose to report HAP on behalf of owners/operators under this proposal, the HAP reporting requirements for such facilities could change in two possible ways. First, the reporting requirements could shift from being a State requirement to an EPA requirement for owners/operators of facilities within States that use CAERS in some way or that eliminate their State reporting rule. Second, the reporting requirements could become duplicative for owners/operators within States that choose to not use CAERS in any way and retain their State reporting rule. For those pollutants owners/operators are already reporting to the State, there is little increase in burden. For those additional pollutants (if any) that would be required under this proposed rule, owners/operators will have an incremental burden for those additional pollutants but would not need to learn about emissions reports in general. Further, the expected increase in facilities and burden needs to be

considered in light of the need by EPA, States, and the public for data that allows for better understanding and reducing public health risks to communities. While the current AERR voluntary HAP collection program gathers a lot of data, the voluntary data does not necessarily have those pollutants that EPA's analysis shows are most important at those facilities and does not include all the facilities that the analysis shows should be collected to inform risk assessments and other EPA analyses.

Based on these considerations, this action proposes to expand the definition of point sources at 40 CFR 51.50 to mean a stationary or portable facility that (1) is a major source under 40 CFR part 70 for any pollutant, or (2) has PTE or annual actual emissions of pollutants greater than or equal to the reporting thresholds in Table 1A to Appendix A of this subpart, or (3) has a primary NAICS code listed in Table 1C to Appendix A of this subpart and annual actual emissions of pollutants greater than or equal to the HAP reporting thresholds (presented in Table 1B to Appendix A of this subpart). Additionally, the EPA is proposing as part of this definition that, in assessing whether emissions levels exceed reporting thresholds, all provisions of this subpart related to emissions estimation approaches would apply, including §§ 51.5 and 51.10 of this subpart.

To further clarify the definition of point sources based in part on primary NAICS (situation #3 in the paragraph above), the EPA additionally proposes a definition of primary NAICS. The EPA proposes that primary NAICS means the NAICS code that most accurately describes the facility or supplier's primary product/activity/service and that the "primary product/activity/service" is the principal source of revenue for the facility or supplier. This definition is being proposed so that the AERR can be consistent with the non-regulatory definition of primary NAICS used by the U.S. Census bureau. This proposed definition would serve for purposes of this subpart for both identifying point sources and reporting primary NAICS.

To set the point source definition, the EPA is proposing to expand the current Table 1 to Appendix A of Subpart A of Part 51 into four tables (Tables 1A through 1D of Subpart A of Part 51). Table 1A provides the proposed point source reporting thresholds for CAPs, which the EPA proposes would remain unchanged. Table 1B provides the proposed HAP initial reporting thresholds for non-major sources. Table

1C provides a proposed list of primary NAICS for non-major sources, and Table 1D provides a proposed list of individual compounds to be reported for groups of chemicals with a single reporting threshold from Table 1B. More information on Table 1D is provided in section IV.I.14 of this preamble.

9. Special Cases of Emissions Thresholds for Non-Major Sources

The risk-based analysis above was not completed for five situations, which are covered in this section: (1) mercury compounds, (2) pollutants included in the 2017 NEI but without URE or RfC, (3) revisions or publication of new URE or RfC, (4) a special case for dioxins/furans, and (5) the treatment of Pb as both a CAP and HAP.

The risk-based approach was insufficient for mercury compounds because they have multi-pathway (air, water, soil) effects that were not captured by the analysis described above.²⁸ Without further evaluation to consider a more inclusive approach, the above approach may set too high a reporting threshold for mercury. It is important to ensure complete mercury reporting from sources because, in addition to using mercury data for risk analysis, the EPA reports trends in total national mercury emissions based on international agreements such as the Minamata Convention on Mercury and the Convention on Long-Range Transboundary Air Pollution. Evaluation of the available 2017 NEI data shows that the reporting threshold resulting from the mercury HI in the approach from section IV.A.8 of this preamble (0.15-ton) would require reporting for only 22 out of about 16,000 sources of mercury currently compiled in the 2017 NEI. Based on the 2017 emissions data to capture 95 percent of the mass of mercury nationally, a reporting threshold of 0.0026 tons (5.2 lbs) would be needed. To capture 99 percent of those known values, a reporting threshold of 0.0003 tons (0.6 lbs) would be needed.

The EPA also is considering that mercury emissions in its divalent form is the portion of mercury emissions of most concern. Unfortunately, sources often have little information about the form of the mercury emitted. Measuring

²⁸ Like mercury, other HAP can be persistent/bioaccumulative (PB-HAP) pollutants that have multipathway effects. Other examples include arsenic, cadmium, dioxins/furans, lead, and PAHs. For this proposal, EPA considered only the inhalation pathway for all PB-HAP pollutants. The inhalation-based thresholds for the PB-HAP, except mercury, were deemed appropriate for this proposal, but EPA could consider multipathway effects in other future rulemaking efforts that could result in different emissions reporting thresholds.

divalent mercury is much more difficult than simply measuring the total mercury emitted.

Based on these considerations, the EPA is proposing a mercury reporting threshold of 0.0026 tons (5.2 lbs), which is based on the value that captures 95 percent of currently best available data about mercury from point sources. Irrespective of the form(s) of mercury reported, the reporting threshold is proposed to be based on total mercury. The proposed reporting threshold is about two orders of magnitude lower than the incomplete HI-based approach described above, which the EPA proposes is reasonable given what is known about multi-pathway exposures for mercury. The EPA additionally proposes that mercury would be reported in its more specific forms when such data are available, but that total mercury would be reported when more specific forms are not available.

The EPA considered how to set a default emissions reporting threshold for all remaining pollutants without an URE or RfC. Without risk data to use to inform such an approach, EPA has proposed to use the major source threshold of 10 tons/year for a single pollutant. For the third special case, the EPA is considering that it may be useful to have a mechanism by which the Agency would revise reporting thresholds for pollutants in the case that a significant revision to an existing URE or RfC becomes available following new scientific findings that could significantly impact EPA's understanding of risk posed by such a pollutant. One example of this situation is provided by ethylene oxide (EtO), when the EPA determined EtO was a much more potent carcinogen than previously realized.²⁹ Rather than being able to rely on an existing requirement to collect data more quickly as is being proposed here, the EPA needed to collect data ad-hoc from 2019 through to 2022 to obtain additional emissions data about these facilities. The data collection process took additional time, delaying a response that could have more quickly addressed public health concerns. This delay would have been avoided if emissions data reporting requirements had, at that time, included a provision such as the one the EPA is now considering.

The EPA has a tiered, prioritized list of appropriate chronic health benchmark values and, in general, the list prioritization places greater weight on the EPA-derived health benchmarks

than those from other agencies.³⁰ The EPA has a prioritization process aimed at incorporating the best available science with respect to dose-response information for air toxics. This information is obtained from various sources and prioritized according to (1) conceptual consistency with EPA risk assessment guidelines and (2) level of peer review received. Where the EPA lacks dose-response information with higher priority (e.g., IRIS), the Agency uses other information sources, such as from the Agency for Toxic Substances and Disease Registry (ATSDR) and the California EPA. To ensure the EPA could collect emissions data for HAP that receive updated health benchmarks that meet the EPA criteria and would receive prioritization, it would be necessary to adjust the health-based emissions reporting thresholds included in this proposal.

The EPA occasionally identifies new health benchmarks for pollutants that do not have them or revises the available benchmarks to reflect a new understanding of a HAP's increased or decreased toxicity. When the available toxicity information about pollutants changes in the future, the EPA expects that it will propose updated emissions reporting thresholds, take comment, and potentially issue final revisions to the HAP emissions reporting thresholds of this subpart. At this time, EPA plans to conduct such revisions in the future via very targeted rulemaking to amend just those HAP emissions reporting thresholds where the toxicity information has changed.

To streamline future actions associated with any revised health benchmarks, the EPA proposes that it may use the following formulas to develop updates for the point source HAP reporting thresholds of this subpart. For changes to UREs, the updated reporting threshold would be calculated using the formula: Updated reporting threshold = (reporting threshold in AERR × URE in 2022) / updated URE, where the "reporting threshold in AERR" refers to the reporting thresholds provided in the proposed Table 1B to Appendix A of this subpart. For changes to RfCs, the updated reporting threshold would be calculated using the formula: Updated reporting threshold = (reporting threshold in AERR × revised RfC) / RfC in 2022.

Further, the EPA proposes that only those HAP reporting thresholds that the

EPA publishes in the **Federal Register** (after notice and comment) 6 months before the end of an inventory year would apply for reporting emissions for that inventory year. For example, any reporting threshold published before July 1, 2027, would be relevant for emissions reporting of 2027 emissions, with those reports being due in 2028. This timing may not leave sufficient time for States to revise their HAP reporting regulations if they are reporting on behalf of owners/operators. Thus, the EPA recommends that States should consider the possibility of drafting their HAP reporting requirements such that they would refer to Table 1B to Appendix A of this subpart rather than list the same thresholds in their own rules. The EPA additionally proposes to publish any updates to emissions reporting thresholds on its Air Emissions Inventories website to help States and owners/operators to be able to find the new reporting thresholds more easily.

Some pollutant reporting thresholds included for non-major sources in the proposed Table 1B to Appendix A of this subpart are listed as 10 tpy, which is the major source threshold. If a point source had emissions of 10 tons, then it would presumably be subject to these proposed reporting requirements based on its status as a HAP major source, which would eliminate the need for including such reporting thresholds in the table. However, to support the possibility that an emission reporting threshold could be updated based on changes to a pollutant's URE or RfC, the 10-ton reporting threshold would be retained in the proposed Table 1B to Appendix A of this subpart to provide the "reporting threshold in AERR" value needed for the updated reporting threshold calculations proposed above. Additionally, including those pollutants in Tables 1B and 1D allows for a more comprehensive list of pollutants to inform owners/operators and States of EPA's expectations and so that the pollutant group relationships listed in Table 1D can be provided.

The fourth special case is dioxins/furans. These pollutants were not included in the risk-based approach described above since they were not included in the 2017 NEI and were not a part of the risk modeling work on which the approach relied. Given the extremely high toxicity of some dioxins/furan pollutants (called congeners), the EPA is considering the approach taken by the TRI program. In addition, while dioxins/furans are not listed as a group on the published list of HAP, these HAP are often treated as a group for various purposes. For example, the TRI program

²⁹ U.S. EPA, Evaluation of the Inhalation Carcinogenicity of Ethylene Oxide (Final Report), EPA/635/R-16/350F, 2016.

³⁰ The health benchmark review process is described at <https://www.epa.gov/iris/basic-information-about-integrated-risk-information-system#process>.

sets a reporting threshold for these compounds in the aggregate of 0.1 gram manufactured, processed, or otherwise used. For TRI reporting, when owners/operators report dioxins/furans, they must submit the mass of each of the congeners of dioxins/furans.

The EPA proposes the non-major reporting threshold for reporting dioxins/furans would be based on the TRI reporting threshold of 1.1 E-07 tons (~0.1 gram) and would apply to the sum of dioxins/furans mass. To meet this requirement, owners/operators would need to sum the mass of the individual congeners. By proposing this threshold for the AERR, the EPA is aligning the thresholds as best as possible to reduce complexity and burden. The EPA's proposed approach for the AERR is a less stringent threshold than the TRI threshold because facilities that manufacture, process, or otherwise use dioxins/furans would likely not emit all of that material to the air. As such, the EPA is not adding any burden on facilities to recognize that they may need to report to the AERR, but rather to estimate their dioxin/furan emissions at the additional level of detail proposed in the AERR as compared to the facility total emissions reported to TRI.

Finally, with respect to the Pb reporting threshold, the EPA is considering that Pb has a role for both CAP reporting and HAP reporting, since it falls under both NAAQS and air toxics provisions of the CAA. The EPA is not proposing to change CAP reporting thresholds (including Pb) in Table 1A to Appendix A of this subpart and is not proposing to change the current AERR requirement to report all CAP emissions if any CAP is above the PTE reporting thresholds (or Pb actual emissions threshold). The EPA approach for risk-based reporting thresholds described in section IV.A.8 results in a 0.074 tpy Pb reporting threshold. The EPA is considering that if it were to modify the CAP reporting threshold for Pb to be 0.074 tpy, this would have the effect of requiring reporting for all CAPs at facilities with Pb exceeding the 0.074 tpy threshold. The EPA does not intend to require CAP emissions (other than Pb) as point source for such small emissions levels. Based on these considerations, the EPA is proposing to retain the 0.5 tpy actual emissions reporting threshold for CAP reporting and additionally propose a Pb reporting threshold of 0.074 tpy actual emissions for purposes of HAP reporting.

Under the proposed approach, all States would continue to report Pb for point sources as required based on the CAP reporting thresholds. States that

optionally report HAP on behalf of owners/operators would also report Pb for sources based on the HAP reporting threshold, and any other HAP from those facilities that would be required by this proposed action, and any other pollutants, including CAPs, that the State chooses to report. In States that do not report HAP on behalf of facilities, owners/operators would themselves be responsible for reporting Pb directly to the EPA for any facility that emits over the HAP reporting threshold (0.074 tpy) and that does not exceed the CAP reporting thresholds (for any CAP) and thus would not be required to be reported by a State.

Under the current AERR, some States voluntarily report Pb emissions for sources below the required reporting thresholds for CAPs. Thus, under the proposed approach, it is possible that the EPA could receive Pb data from both a State and an owner/operator for the same facility. In this case, the EPA would need to select one of these data values to include in the NEI. If an owner/operator is required to report (and does report) Pb emissions data for a facility (*i.e.*, the State is not approved to report on their behalf), but the State also voluntarily submits that data for the same facility, then the EPA will use the data from the owner/operator. The EPA would plan to note any difference between the emissions submitted by the State and the owner/operator in quality review materials provided to both parties.

10. Pollutants To Be Required or Optional for Point Sources

The EPA is considering which pollutants would be reported by owners/operators of facilities once a facility has been determined to be a point source. This action does not propose changes to which CAPs would be reported. With the proposed revision to require HAP, the EPA is considering how to handle cases in which a facility is required to report HAP but does not exceed the reporting threshold for CAPs. The term "incidental CAPs" will be used hereafter to refer to CAP emissions that would be reported only because a facility is a point source due to its HAP emissions. This situation is exemplified by a facility that emits one ton of nickel per year (exceeding the proposed Ni reporting threshold of 0.0021 tpy) but does not exceed the 100 tpy potential-to-emit reporting threshold for PM_{2.5}. An ideal policy should include a mechanism to prevent the discrepancy that would result when the facility reports the nickel emissions of one ton and zero PM_{2.5} emissions, since nickel is a part of PM_{2.5}.

To address this issue, the EPA is proposing to require reporting of incidental CAPs by owners/operators that report HAP for point sources, and by States when a State has been approved to report HAP on behalf of owners/operators. To support this requirement, the EPA is additionally proposing the definition of incidental CAPs to mean "a criteria pollutant or precursor emitted from a facility that meets the point source reporting definition due to emissions of HAP but has emissions of criteria pollutants and precursors below reporting thresholds for those pollutants." To inform this proposed approach, the EPA is considering whether a voluntary approach or a requirement would work best and the nature of any requirement.

Under a voluntary approach, owners/operators or States would not be required to report incidental CAPs, but such emissions could be reported voluntarily. This would impose a lower burden but may create inconsistencies in the NEI data at the facility level when CAP data are not voluntarily reported (as described by the example provided above about a facility reporting nickel without reporting PM_{2.5}). To address any such inconsistencies, the EPA could augment the NEI by summing any HAP reported without associated CAPs. For example, if a facility were to report 1 ton of nickel, 0.2 tons of cadmium, and 0.3 tons of antimony as their only PM HAP, then the EPA could sum these values to include 1.5 tons of PM_{2.5} in the NEI. While avoiding inconsistency, this approach would create partial data for PM_{2.5} that would appear to be complete, and thus could cause confusion that would be better to avoid by estimating or collecting total PM_{2.5}.

The EPA also is considering the possibility of using the required throughput (activity) data reported by owners/operators for the HAP to estimate the CAP emissions on behalf of owners/operators. This approach slightly reduces burden as compared to the proposed approach of requiring incidental CAP, though it complicates the NEI process and adds annual emissions data to the NEI after owners/operators have already submitted. In the past, the EPA has found that if owners/operators or States do not submit complete emissions, they can be surprised by EPA's additions to their data prior to NEI publication. Further, there is no guarantee that all sources of the incidental CAP at a facility also have emissions of HAP, making any estimate by the EPA based on throughput data used to estimate HAP potentially incomplete. In EPA's experience, these disadvantages are better avoided.

A requirement to report incidental CAPs has the advantages of collecting additional CAP emissions data for a more detailed NEI and boosting consistency between emissions of HAP and their associated CAPs (like VOC and PM_{2.5}). Such a requirement would also have the disadvantage of additional burden on owners/operators to estimate and report more pollutants.

In considering a requirement to report incidental CAPs, the EPA is considering two possibilities for implementation: (1) States could be required to report CAP emissions of such sources rather than owners/operators, consistent with the overall CAP reporting approach taken in the AERR or (2) owners/operators could be required to report CAPs directly to the EPA consistent with the HAP reporting requirement. To implement the first approach, all States would need to modify their State regulations to update the definition of which sources would report CAPs to include HAP reporting thresholds. Such a modification would be necessary under the first approach, regardless of whether the State intends to be responsible for reporting HAP emissions on behalf of owners/operators. This poses a significant disadvantage.

The EPA is proposing the second approach listed above for owners/operators to report incidental CAPs. This approach does not require States to modify their CAP reporting regulations and still allows States to report incidental CAPs if they report HAP emissions. Under the proposed approach, the State HAP submission application and approval process described in section IV.A.6 of this preamble would, therefore, also include the reporting by States of incidental CAPs associated with such facilities. The proposed approach also works well with the requirement for owners/operators to report emissions using CAERS, because CAERS assists owners/operators with emissions factors for both HAP and CAPs associated with their emissions processes and provides other advantages to streamline reporting. Additionally, the EPA plans that future versions of CAERS would have the direct access to the source tests reported to CEDRI to support use of source test data for estimation of incidental CAP. The EPA expects the source test data to be useful for this, because of the frequent approach taken by NESHAP rules to collect a surrogate pollutant report, such as filterable PM_{2.5}, to ensure compliance with HAP emissions limits. Thus, the incremental burden for a facility reporting to the EPA directly via CAERS to report incidental CAPs would be lower than if

CAERS were not required. Since some such facilities may not already be regulated for CAPs by States, some may be less likely to have source testing or other emissions factor data. In these cases, owners/operators could simply use the default emissions factors provided by the EPA in CAERS when available.

Based on these considerations, the EPA proposes that owners/operators would be required to report incidental CAPs associated with HAP being reported when they are required to report HAP but would not otherwise be required to report CAP (*i.e.*, they are not a major source for CAP). This requirement would impact reporting emissions for HAP major sources and for non-major sources when required to report HAP.

If applying to the EPA to report HAP on behalf of owners/operators, a State would need to consider the incidental CAP requirement when designing any updated emissions collection regulations. The proposed Table 1B to Appendix A of this subpart includes which criteria pollutants are associated with each HAP and would determine the CAPs expected to comply with this proposed incidental CAP reporting requirement. This approach has the advantages previously noted and, in addition, it solves the same collection and consistency challenge for States by providing a framework for any States that choose to report HAP on behalf of owners/operators.

In addition to incidental CAPs, the EPA is considering which HAP would be reported by owners/operators of facilities that meet the point source definition. As described above, this action proposes that owners/operators of HAP and CAP major sources report all HAP. This proposed requirement would be consistent with EPA's obligations under the Act to regulate all pollutants from such HAP major sources and includes CAP major sources to have available to the agency a complete suite of pollutants from all large emitters.

For non-major sources, the EPA proposes that owners/operators would be required to report only those HAP that are greater than EPA's HAP reporting thresholds, initial values for which are presented in the proposed Table 1B to Appendix A of this subpart. To identify this proposed approach for non-major sources, the EPA compared this proposed approach to an alternative by which owners/operators of non-major sources would report *all HAP* when any one HAP has emissions greater than or equal to the proposed reporting thresholds. To choose an approach, the EPA is weighing the

additional burden associated with reporting all HAP relative to the importance of additional data that would be collected if all HAP were required.

To understand the effects of this proposed action, the EPA evaluated the relative impact of the HAP pollutant requirements. The incidental CAP impact is expected to be small because it would add just one or two pollutants per facility and the requirement could be met using emissions factors. Thus, the incremental CAP impact was not separately analyzed from the total HAP impact. The EPA used the 2017 NEI data to estimate the number of additional combinations of facilities and HAP pollutants as a surrogate to estimate incremental burden from each policy choice relative to the option of reporting all HAP for HAP major sources. Table 1 below provides these results by including a "burden" factor calculated using the estimated number of facility-pollutant combinations associated with a policy option divided by the estimated number of facility-pollutant combinations associated with all pollutants from the identified HAP major facilities.

These relative burden estimates are imperfect because they rely on the 2017 NEI that is known to be incomplete (since HAP reporting is currently voluntary), but they still represent the best data available to the EPA at the time the analysis was performed. To compare the burden between the proposed non-major approach and the alternative non-major approach, the EPA counted the number of records in the 2017 NEI with HAP emissions. In the proposed case, the EPA included only those records associated with the HAP at a facility for HAP exceeding the proposed thresholds. For the alternative case, the EPA included all HAP records at a facility when any HAP exceeded the proposed thresholds. Based on these counts, the EPA estimates a 40% increase in burden associated with the alternative that the EPA is not proposing.

The EPA has considered whether a 40% burden increase to collect additional HAP data (below risk-based reporting thresholds) from non-major sources would be warranted. In considering this, the EPA has been unable to identify a reason to collect those additional HAP (unlike for major sources, which as noted starting in section IV.A.4 of this preamble, the Act directs EPA to consider all HAP). While the data would certainly be more complete under the alternative approach, the risk-based reporting thresholds that the EPA is proposing would provide substantially more data

than the Agency currently has. Rather than impose additional burden, the EPA is proposing to require that owners/operators of non-major sources would report emissions only when those emissions are greater than or equal to the HAP reporting thresholds, presented in Table 1B to Appendix A of this subpart, but subject to revision as described above. The EPA urges commenters to provide comment to it regarding any factors the Agency may have missed in selecting the proposed approach.

In addition to the burden of the various policy options for HAP emissions reporting, the EPA evaluated the distribution of sources across communities for informational purposes.³¹ The results in Table 1 provide three types of areas where facilities emit pollutants in amounts that classify those sources as major sources or levels of HAP for non-major sources that meet the proposed reporting thresholds of this action. Table 1 illustrates the demographic make-up of the populations located within 5 km of the facilities that would

be required to report under the proposed policy options. The demographics are based on indicators from the Bureau of Census' 5-year American Community Survey (ACS).³² The column "Nationwide" represents the nationwide average percent demographics for comparison. The following three columns "CAP Major," "HAP Major," and "Non-Major," represent the average percent demographics of the populations living within 5 km of the facilities in each group of facilities. For this analysis, the EPA used a 5-km distance to try to capture the appropriate demographics for near-field exposures. Based on previous air dispersion modeling of HAP emissions from over 1,600 facilities in 22 source categories, the average distance of the maximum individual cancer risk (MIR) is about 2 km from the facility. A distance of 5 km was chosen because it captures 95 percent of MIR locations for these 1,600 facilities. Section 6 of the TSD provides additional details. Regarding race and ethnicity, the data show that on average, the populations living around facilities

affected by this action are above the percent national average. While the national average population for African Americans is 12 percent, the percentage of this demographic group near facilities is between 15 and 17 percent, depending on the facility type. Similarly, the Hispanic/Latino population average is 19 percent, and the percentage of this demographic near facilities is 22 to 23 percent. For the Other Multiracial population, the average nationally is 8 percent while the percentage of this demographic near facilities is 9 to 10 percent. In addition, the populations living around facilities affected by this action are above the percent national average for "Below Poverty Level," "Over 25 and without a High School Diploma," and "Linguistically Isolated." Since the reporting thresholds are largely based on risk contribution, these results show that owners/operators will report HAP from facilities emitting at levels contributing to risk in both low-income areas and in communities with a higher minority population than average.

TABLE 1—PERCENT OF POPULATION BY DEMOGRAPHIC FOR POPULATIONS NATIONWIDE AND WITHIN 5 KM OF CAP MAJOR FACILITIES, HAP MAJOR FACILITIES, AND NON-MAJOR FACILITIES

| Demographic group | Nationwide | CAP major: population within 5 km of 4,067 facilities | HAP major: population within 5 km of 7,552 facilities (including HAP/CAP major) | Non-major: population within 5 km of 6,096 facilities |
|---|-------------|---|---|---|
| Total Population ^a | 328,016,242 | 69,683,592 | 117,946,858 | 93,000,649 |
| Race and Ethnicity by Percent | | | | |
| White | 60 | 50 | 52 | 52 |
| African American | 12 | 17 | 16 | 15 |
| Native American | 0.7 | 0.4 | 0.4 | 0.4 |
| Hispanic or Latino (includes white and nonwhite) ^b | 19 | 23 | 22 | 23 |
| Other and Multiracial | 8 | 9 | 9 | 10 |
| Income by Percent | | | | |
| Below Poverty Level | 13 | 16 | 16 | 15 |
| Above Poverty Level | 87 | 84 | 84 | 85 |
| Education by Percent | | | | |
| Over 25 and without a High School Diploma | 12 | 14 | 14 | 14 |
| Over 25 and with a High School Diploma | 88 | 86 | 86 | 86 |

³¹ This analysis was completed prior to a few minor revisions to the NAICS list and emissions thresholds (added 5622xx for Waste Treatment and Disposal and 62231x for Specialty Hospitals). No facilities are in the 2017 NEI used in this analysis for 62231x. The EPA also revised the cobalt

threshold after this analysis was done. The EPA has reprocessed the facility analysis and about 2,000 facilities were added since the EJ analysis was completed. The EPA believes that the results of the analysis are still highly representative of the

proposed reporting criteria because the analysis included more than 17,700 facilities.

³² U.S. Census Bureau American Community Survey Data, <https://www.census.gov/programs-surveys/acs/data.html>.

TABLE 1—PERCENT OF POPULATION BY DEMOGRAPHIC FOR POPULATIONS NATIONWIDE AND WITHIN 5 KM OF CAP MAJOR FACILITIES, HAP MAJOR FACILITIES, AND NON-MAJOR FACILITIES—Continued

| Demographic group | Nationwide | CAP major: population within 5 km of 4,067 facilities | HAP major: population within 5 km of 7,552 facilities (including HAP/CAP major) | Non-major: population within 5 km of 6,096 facilities |
|---|------------|---|---|---|
| Linguistically Isolated by Percent | | | | |
| Linguistically Isolated | 5 | 8 | 7 | 7 |

^a The nationwide population and all demographic percentages are based on the Census’ 2015–2019 American Community Survey 5-year block group averages and include Puerto Rico. The total population count within 5 km of all facilities is based on the 2010 Decennial Census block populations.

^b To avoid double counting, the “Hispanic or Latino” category is treated as a distinct demographic category for these analyses. A person who identifies as Hispanic or Latino is counted as Hispanic/Latino for this analysis, regardless of what race this person may have also identified as in the Census.

Table 2 below provides the estimated number of known facilities from the 2017 NEI expected to be impacted by these proposed HAP reporting requirements for which the average

percent of the population within 5 km exceeds the national average for different demographics. These results show that a significant number of the known facilities for which the proposed

action could collect better data are located near areas of interest for environmental justice issues.

TABLE 2—NUMBER OF FACILITIES FOR WHICH THE POPULATION WITHIN 5 KM EXCEEDS THE NATIONAL AVERAGE FOR DIFFERENT FACILITY CATEGORIES AND DIFFERENT DEMOGRAPHICS.

| Demographic group ^a | CAP major facilities | HAP major facilities (includes HAP/CAP major) | Non-major facilities |
|---|----------------------|---|----------------------|
| Total Number of Facilities | 4,067 | 7,552 | 6,096 |
| Race and Ethnicity | | | |
| White | 2,393 | 4,878 | 4,306 |
| African American | 958 | 2,608 | 1,231 |
| Native American | 731 | 1,287 | 1,664 |
| Hispanic or Latino (includes white and nonwhite) ^b | 974 | 1,657 | 1,396 |
| Other and Multiracial | 679 | 1,088 | 1,014 |
| Income | | | |
| Below Poverty Level | 1,812 | 4,082 | 2,649 |
| Education | | | |
| Over 25 and without a High School Diploma | 1,793 | 3,959 | 2,606 |
| Linguistically Isolated | | | |
| Linguistically Isolated | 811 | 1,338 | 1,012 |

^a Demographic data are based on the Census’ 2015–2019 American Community Survey 5-year block group averages and include Puerto Rico. The total population count within 5 km of all facilities is based on the 2010 Decennial Census block populations.

^b To avoid double counting, the “Hispanic or Latino” category is treated as a distinct demographic category for these analyses. A person who identifies as Hispanic or Latino is counted as Hispanic/Latino for this analysis, regardless of what race this person may have also identified as in the Census.

11. Reporting Release Coordinates

In conjunction with the proposed requirements to report HAP emissions, the EPA is considering the need for accurate location information of HAP emissions releases to be able to perform appropriately detailed assessments of risk using models. The EPA estimates concentrations and associated risk from

HAP emitted from facilities using the AERMOD modeling system ³³ and uses HAP emissions in other models for various analyses. These models rely on emissions data as input, and the most

³³ AERMOD modeling system home page, EPA, <https://www.epa.gov/scram/air-quality-dispersion-modeling-preferred-and-recommended-models#aermod>.

complete modeling approaches include emissions at the many individual release points that can exist at facilities. Large facilities can have hundreds of individual release locations, and the proximity of those releases to people and communities is an important aspect of proper risk estimation for populations. Emission releases are

compiled in the NEI as either stack releases or fugitive releases.

The EPA proposes a requirement that owners/operators and States reporting emissions data directly to the EPA would report release point locations that are distinct from the facility location. This proposed requirement would apply for both stack locations and fugitive release locations. To arrive at this proposed approach, the EPA is considering a variety of factors described in this section.

Stack and fugitive releases in the NEI are already required to be reported by the current AERR. In addition, stack parameters such as height, release diameter, exit gas temperature, and exit gas velocity are also required so that models can simulate the buoyancy of emissions plumes and dispersion in surrounding areas. For fugitive releases, the current AERR also requires parameters to characterize the shape of the fugitive release as 2- or 3-dimensional, the width, length, and height of the emissions release, and the orientation of the release shape. In both cases, however, the current AERR does not require that release point locations be specific to each release point. Rather, it allows States to report only the overall facility location, and, in that case, the EPA uses the facility location to set default release point locations for that facility when States do not provide specific release point locations.

The current AERR approach was promulgated in 2015 (80 FR 8787, February 19, 2015). In that final rulemaking, the EPA changed the requirement for States to provide X Stack Coordinate (longitude) and Y Stack Coordinate (latitude) only at the facility location, rather than for the stack locations. In that final action, the EPA explained that “most states do not have accurate location values for each individual release point within a facility; instead, they frequently report the same locations for all stacks within a facility” (80 FR 8792, February 19, 2015). In addition, the EPA stated that “the vast majority of facilities are geographically small enough that such a simplification does not reduce the usefulness of the data and we encourage States to optionally report individual stack locations to add accuracy beyond the single facility center location. The EPA may also add such individual stack locations where the agency believes it has accurate data” (80 FR 8792).

The context of that AERR revision was within the requirements for collecting CAP emissions. The primary use of the NEI for CAP pollutants is for Eulerian grid modeling such as the Community Multiscale Air Quality

(CMAQ) modeling system,³⁴ for which emissions sources are mapped to grid cells for modeling. These grid cells are typically 4- or 12-km, which is the context for the statement made in the 2015 AERR revision that “the vast majority of facilities are geographically small enough that such a simplification does not reduce the usefulness of the data” (80 FR 8792). For the case of such grid modeling, using a single facility-wide latitude/longitude for stacks would at worst, misplace some of the emissions from a facility into a neighboring grid cell when a facility size is such that it crosses a grid cell boundary. Given other modeling uncertainties of Eulerian grid modeling, this additional uncertainty would not be a concern for most modeling applications in the relatively few cases where it occurred. In cases that need more locational detail, the EPA could revise the inventory to correct any release point locational inaccuracies caused by the current AERR’s approach to the release point coordinate requirements. The EPA received no comments regarding this revision during the comment period for the June 20, 2013, proposed rule (78 FR 37164).

In the context of the HAP emissions reporting requirements proposed in this action, the EPA is revisiting the requirement for accurate release point locations. The EPA’s experience with risk modeling using HAP emissions inventories has been that using default facility locations for all release points provides lower quality results than when models use more detailed data. Using imprecise locations can provide inaccurate risk information that could overstate or understate cancer risk significantly. Research has concluded that improved locational data and release parameters can reduce uncertainty in a risk assessment by up to 2 orders of magnitude.³⁵ These modeling results are especially sensitive to the distance between the residential receptor and the emission sources, especially for facilities that have a large industrial footprint.

Because risk is very related to proximity of the source to populations, when a large facility has emissions releases that border neighborhoods, the risk can be greatly understated if EPA were to use a single central facility-wide

location. The EPA’s modeling guidance for urban air toxics modeling³⁶ explains that “each source will need to be classified as a point, area, volume, or line source,” and that “building the source inventory usually begins with mapping the locations of emissions sources.” Also in the guidance, subsections in Section 1.3 indicate how modelers should define each of the different types of release points and specify “location of the source” (point source characterization), “location, geometry, and relative height” (for 2-dimensional release points, called “area sources” in the guidance). Likewise, Section 7.2 of the “Air Toxics Assessment Reference Library, Volume 2, Facility-Specific Assessment”³⁷ explains that model inputs needed by the Human Exposure Model (HEM) require “the geographical location (latitude and longitude) of each source being simulated (with “source” in this context being each release point at a facility) and states that “the model requires that coordinate data be obtained for each emission source in the analysis, and that each emission source is modeled individually.”

As further evidence of this need, EPA has previously found it necessary to collect limited sets of this data from certain industries to support modeled risk analysis for the Risk and Technology Review (RTR) program required by CAA sections 112(f)(2) and 112(d)(6).³⁸ These one-time requests included collection of release point location and other parameters for stack and fugitive releases. As explained above in Section IV.A.1, these one-time collections tend to impose sporadic and reoccurring “start-up” burden on owners/operators associated with expending time and resources on understanding and responding to the requests. While the mandatory risk reviews under CAA section 112(f)(2) have been completed for most of the source categories listed under CAA

³⁶ Dispersion Modeling of Toxic Pollutants in Urban Areas and Appendices, U.S. EPA, Document No. 454-R-99-021, July 1, 1999; <https://www.epa.gov/scram/air-modeling-guidance-air-toxics-modeling>.

³⁷ Air Toxics Risk Assessment Reference Library, U.S. EPA, <https://www.epa.gov/fera/air-toxics-risk-assessment-reference-library-volumes-1-3>.

³⁸ Examples include Plywood and Composite Wood Products Manufacturing (<https://www.epa.gov/stationary-sources-air-pollution/plywood-and-composite-wood-products-manufacture-national-emission>), Ethylene Oxide Emissions Standards for Sterilization Facilities (<https://www.epa.gov/stationary-sources-air-pollution/ethylene-oxide-emissions-standards-sterilization-facilities>), and Petroleum Refining Sector (<https://www.epa.gov/stationary-sources-air-pollution/comprehensive-data-collected-petroleum-refining-sector>).

³⁴ Community Multiscale Air Quality Modeling System home page, U.S. EPA, <https://www.epa.gov/cmaq>.

³⁵ Jing, Q., Venkatram, A., Princevac, M., Pankratz, D., Wenjun, Q., *Modeling Dispersion of Buoyant Emissions from a Low Level Source in an Urban Area*, American Meteorological Society, The Conference Exchange, 2010. See also <https://ams.confex.com/ams/pdfpapers/160624.pdf>.

section 112, the EPA may conduct future risk reviews that are discretionary under the CAA. Further, the EPA does have the continuing obligation to conduct a technology review under CAA 112(d)(6) for each HAP standard every 8 years. Under this proposal, data for these future reviews would already be available to the agency rather than needing to issue a continuous and never-ending stream of individual data collection requests. Having the data available will allow EPA to be timely in meeting these CAA obligations.

In the previous AERR revision, we identified one reason for the change of release point location data to be optional as the lack of available information from States. The collection approach proposed by this action would avoid this limitation because it would allow for owners/operators to directly report release point locations and parameters in support of the proposed requirement to collect and submit HAP emissions data. As defined by 40 CFR 2.301(a)(2)(i), emissions data includes those parameters necessary to characterize the emissions, which, in the context of HAP emissions, includes the release locations and parameters required in Table 2a to Appendix A of Subpart A of Part 51.

Another relevant consideration for release point locations is the ease with which such data can be obtained now. Global Positioning System (GPS) applications are readily available on ubiquitous cell phones for employees of both small and large companies to compile such information. For stack releases, coordinates for the center of a stack can be readily obtained either with a GPS approach or using readily available online mapping software to pinpoint the locations of stacks and fugitive releases.

Based on these considerations, the EPA proposes that any owners/operators reporting emissions data directly to the EPA (other than small entities as per section IV.A.12 of this preamble) would be required to provide specific release point locations that are distinct from the facility location. Considering the complexity of facilities and that release points frequently emit both CAPs and HAP, the EPA proposes that this requirement be applied to all release points reported in the facility inventory (*i.e.*, not only those release points that emit HAP). In addition, to keep the quality assurance of the incoming data manageable, this approach will allow the EPA to have detailed release parameter data for SO₂ and PM_{2.5}, which also can be modeled using AERMOD and fine-scale modeling tools as part of permitting and other NAAQS programs.

To be consistent with requirements across the inventory collection process, the EPA additionally proposes that State programs would be required to report all release points using release point locations that are distinct from the facility location. These proposed requirements apply for both stack locations and fugitive release locations.

12. Reduced HAP Reporting Requirements for Small Entities

In developing this proposal, the EPA convened a Small Business Advocacy Review (SBAR) Panel in compliance with section 609(b) of the Regulatory Flexibility Act (RFA) as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA). In addition to EPA's Small Business Advocacy Chairperson, the SBAR Panel consisted of the Director of the Air Quality Assessment Division of OAQPS, the Administrator of the Office of Information and Regulatory Affairs (OIRA) within the OMB, and the Chief Counsel for Advocacy of the Small Business Administration (SBA). The SBAR Panel recommended many accommodations for small entities to reduce their burden while still allowing this proposal to collect data needed to meet EPA's objectives under the Clean Air Act. A copy of the full SBAR Panel Report is available in the docket for this action.

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 section IV.A.10 of this preamble).

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.

In addition, because States are free to have emissions collections that include sub-facility detail irrespective of any final AERR provisions, States may collect more detailed data than would be required by the AERR. The EPA observes that EPA, States, and owners/operators have a shared interest in ensuring that the EPA has the more detailed data to support risk assessment and other work.

Based on these considerations, the EPA proposes to provide owners/operators the option to report a facility's 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 (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 a 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 detailed 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.

As previously noted, the EPA is proposing that if its modeling shows 20/million or more cancer risk, small businesses would need to report more detailed emissions. EPA is taking comment on a cancer risk range of 10/million to 30/million for this potential threshold. In this proposed cancer risk range for comment, the EPA is considering that this range represents a 10-fold to 30-fold accommodation for small businesses beyond achieving less than 1/million cancer risk as laid out for EPA in the CAA. The target of cancer risks of 1/million or lower is included at CAA 112(c)(9)(B)(i), which describes that the EPA may delete a source category from the list of categories if, among other requirements, the EPA determines that no source in the category emits HAP in quantities which may cause a lifetime 1/million risk of cancer. Likewise, CAA 112(f)(2)(A) directs EPA to promulgate emissions standards that “shall provide an ample margin of safety to protect public health” and to promulgate standards beyond standards set by CAA 112(d) if those standards “do not reduce lifetime excess cancer risks . . . to less than one in one million.”

The EPA encourages commenters to provide feedback on the proposed choice of the midpoint of this range of 20/million estimated cancer risk to provide accommodations to small businesses. The EPA seeks to learn about 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, 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.

The EPA provided an analysis for the SBAR Panel that estimated the number of small entities expected to report based on EPA’s proposed HAP emissions reporting thresholds. This analysis showed that the collision repair industry characterized by NAICS 811121 (Automotive Body, Paint, and Interior Repair and Maintenance) is unique in that it has the most small entities of any industry that the EPA is considering including in the proposed rule according to the 2017 Economic Census data, and that much smaller number of the largest collision repair facilities (about 2,000) are estimated to fall within the emissions reporting thresholds under consideration. Given that the EPA is already receiving data through States from about 2,300 of such sources, the EPA is unlikely to reduce the number facilities for which emissions data must be reported below the number it is already receiving. The EPA reviewed other NAICS in this way, but no other NAICS presented a similar situation. In other industries, the EPA either estimates that many more sources would need to report based on these proposed requirements or the EPA lacks sufficient existing emissions data for facilities with those NAICS to perform the same analysis.

To balance the potential burden with the need for information and considering the large number of businesses in the collision repair industry, 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. As described in the next section, the EPA intends to provide an emissions estimation tool for small entities to use in support of implementing the proposed requirements. The emissions estimation tool would provide a way for small businesses to estimate their facility-wide emissions to assess whether their emissions exceed the non-major HAP emissions reporting thresholds. If they do exceed the thresholds and the owner/operator determines they must report, the emissions estimation tool would allow those estimates to be submitted to EPA (and States) via CAERS. The EPA expects that providing this tool will assist with reducing situations where required data are not reported. In this section, 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.

13. Emissions Estimation Tool for Small Entities

The SBAR Panel recommended that the EPA develop an emissions estimation tool to help small entities estimate facility-wide emissions. The 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 this 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 described in section IV.A.12 of this preamble 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.1.6 of this 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 this 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. It recommended 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. It also recommended that 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. In addition, the SBAR Panel recommended 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. It further recommended that the EPA coordinate with Small Business Environmental Assistance Programs (SBEAPs) in each State to support the outreach and developing guidance for small entities. Finally, the SBAR panel recommended that the EPA provide a list of units and processes for which small entities could select for emissions reporting for review and feedback.

As previously described in section IV.A.12 of this preamble, 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.

The EPA is considering how best to implement such an emissions estimation tool. Currently, the EPA is considering first ensuring that it 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.

The EPA is also considering the possibility of misuse of the tool by owners/operators to avoid reporting responsibility. For example, we have considered the possibility that an owner/operator might intentionally enter low activity data into EPA's tool to ensure emissions were below the applicable reporting threshold. The EPA's conclusion is that this would violate the requirement under § 51.5(a) of this proposed rule to use the best available information to estimate emissions. Further, if the facility was actually emitting at or above the applicable reporting threshold but not reporting those emissions, that too would be a violation of the proposed requirements. The EPA plans to develop this tool to assist facilities with determining whether they emit at or above the applicable reporting threshold (and thus would be required to report) and to help them estimate emissions for reporting. Use of the tool, however, does not excuse an owner/operator, or a State, from complying with all applicable requirements. As part of using the tool, owner/operators would need to follow the directions provided as part of the estimation tool. The EPA also expects the tool would include a

mechanism for users to indicate that the information entered is complete and accurate to the best of their knowledge. In addition, to avoid future misunderstandings, the tool would create an electronic report that would include the name and business of the person using the tool, the input data entered by the user, the resulting facility-wide emissions, and whether any of those emissions exceed an emissions reporting threshold. This information would not be collected by the EPA in the first instance, unless the report was submitted as an emissions report to the EPA either voluntarily or because the owner/operator has determined that it is required to report. However, we anticipate that future EPA directions, or guidance, associated with using the tool could recommend that owners/operators retain these reports and/or other information they used for assessing facility-wide emissions to determine whether they must report.

If a small business determines that emissions estimates exceed one or more HAP reporting thresholds, those facility-wide emissions could be reported to the EPA to meet reporting requirements, so long as the small business meets the conditions that permit optional facility-wide emissions reporting. The EPA intends to make the reporting of the tool emissions values easy for small entities by providing for an automatic transfer of information already entered into the emissions estimation tool into the CAERS reporting forms. This approach would further reduce burden on small entities. Finally, during any such submission, the EPA expects that CAERS would support an official certification that the information provided is complete and correct, consistent with EPA's certification requirements for electronic data collection.

14. Definition of Small Entities

To implement the small business accommodations described in section IV.A.12 of this preamble, 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) has 100 or fewer employees, (b) is a small business concern as defined in the Small Business Act (15 U.S.C. 631 *et seq.*), (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 business concern size standards are 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 previously described in sections IV.A.1 through IV.A.3 of this preamble. 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.³⁹ 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 analytical 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, 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 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 threshold that is 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 additional 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.

15. Reporting HAP and CAP for the Same Emissions Processes

Under the current AERR relying on voluntary HAP reporting by States, the EPA has observed that some States report CAPs and HAP using separate unit and/or process identifiers for pollutants emitted from the same process. For example, a State could report emissions for a boiler burning oil using process identifier "1" to report VOC and process identifier "2" to report benzene, when in fact both pollutants are emitted from the same process and therefore should use the same process identifier. Downstream analytical steps that utilize emissions inventories rely on computer processing because of the hundreds of thousands to millions of data records included in point source

inventories. The computer software uses the process identifier as one of the unique emissions source identifiers. In this example, the software would treat the VOC and benzene as if they were emitted from two sources at the facility, rather than from a single process for the boiler.

For many uses of emissions inventories, inconsistent process-level identifiers pose no problem, but the situation can create some problems. First, it complicates QA of the inventory, such as identifying whether certain expected pollutants may be missing from processes and ensuring that the inventory includes consistent information across pollutants for the same process, such as the source classification code (SCC). Second, using different SCCs for the CAPs and HAP emitted from the same process (but not reported at the same process) could cause a miscalculation of co-pollutant impacts from emissions controls. For example, when a computer program processes an emissions inventory for control strategy development, that program would not recognize that a VOC emissions control device assigned at the process level should also impact the benzene emissions because benzene is a part of VOC. This problem could occur due to mismatched process identifiers, SCCs, or both. Third, chemical speciation calculations on emissions inventories can be adversely affected by inconsistent process-level reporting, because HAP emissions can be used to improve the chemical species of CAPs for use in models. Using the VOC and benzene example, when the VOC and benzene are reported with different processes, then the computer software could not use the reported benzene to inform the chemical speciation of the VOC from the same process.

To address these considerations, the EPA proposes to include at 40 CFR 51.40(b) a provision stating that when reporting process-level emissions data, States and owners/operators would be required to use the same unit, process, and release point identifiers for all pollutants emitted from the same unit, process, and release point at the facility. Such an approach allows inventory users to better understand the full suite of pollutants for each process, enabling improved ability to consider ancillary benefits or the potential for unintended adverse impacts of controls on co-pollutants from the same process.

To address the recommendations of the SBAR Panel Report, this proposed requirement would not apply to small entities that elect to report HAP emissions as a facility total as per the

³⁹ See Appendix A, Table A-2 of the Supporting Statement for the Air Emissions Reporting Requirements (AERR) EPA ICR # 2170.09 for this proposal, available in the docket for this action.

proposed accommodations described in section IV.A.12 of this preamble. In this case, small entities would not report HAP at the process level and the need for a process identifier would not apply. Thus, if a facility owned by a small business meets the AERR CAP reporting thresholds, then a State would need to collect CAPs from the small business and report them to EPA. If the State collects HAP on behalf of the same facility in accordance with these proposed requirements, then the EPA is proposing that the State would need to allow the small business to report HAP as a facility total. However, if the State collects HAP on behalf of the facility and the State reporting requirements include mandatory process-level reporting (*i.e.*, going beyond these proposed requirements), then the State would be expected to report the process-level emissions to EPA.

16. Option To Include PFAS as a Required Pollutant

The EPA is considering whether this action should include reporting of per- and polyfluoroalkyl substances (PFAS). PFAS compounds are persistent in the environment and accumulate in body tissues, and exposure to PFAS compounds has been linked to adverse health effects in humans and animals. There are currently no health benchmarks for the inhalation toxicity of PFAS compounds; however, PFAS point source emissions into air can deposit PFAS into nearby drinking water bodies. The EPA has derived chronic, noncancer reference doses (RfD) for oral exposure to perfluorooctanoic acid, perfluorooctyl sulfonate, GenX, and perfluorobutane sulfonate, with assessments for several additional PFAS compounds in progress. While PFAS are not currently HAP, current evidence suggests a need for better identification and characterization of PFAS point source emissions in air.

The EPA's 2021 PFAS Strategic Roadmap tasked the Office of Air and Radiation with building the technical foundation to address PFAS air emissions, in part by identifying PFAS sources and developing monitoring approaches for stack emissions. Certain PFAS were added to the TRI chemical list under section 7321 of the National Defense Authorization Act (NDAA) for Fiscal Year 2020. The NDAA sets the reporting threshold for individual PFAS compounds at 100 pounds (*i.e.*, 0.05 tpy). As previously described for HAP, TRI does not provide the level of detail needed for detailed modeling for PFAS.

EPA also is considering the limitations in our understanding of

PFAS. For example, measurement methods are unavailable to measure many of the individual compounds making up the collective group of PFAS compounds. While the EPA continues to develop additional measurement methods and more such methods will be available over time, they are not available currently. Additionally, toxicity data are available for only a handful of compounds in this group currently, but ongoing EPA work in this area is expected to provide additional toxicity data in the future. These limitations would need to be accommodated by any regulations concerning the reporting of PFAS. For example, while the EPA has done risk analysis to support the threshold levels for reporting HAP (described in IV.A.8 of this preamble), the EPA does not, at this time, have sufficient PFAS and risk data to use a similar approach for PFAS. The Agency must therefore find another approach to propose reporting thresholds for PFAS if it were collected under this subpart. As with other pollutants as described in sections A.4 and IV.I.6 of this preamble, EPA is proposing that owners/operators would not need to measure PFAS emissions if measurements were not already available. Rather, owners/operators would be required to use PFAS source measurements for annual emissions reporting purposes when available and use estimation techniques for reporting when measurements are not available.

Given these considerations, the EPA seeks comment on the following "PFAS Option" for how the Agency could include PFAS reporting requirements in a final action. Regulatory text to implement this option is described and included here in the preamble. First, the title of proposed 40 CFR 51.12(b) would be changed to "Hazardous air pollutants and Per- and Polyfluorinated Substances." Second, EPA would include at the end of proposed 40 CFR 51.12(b)(1) "and PFAS as listed in Table 1E to Appendix A of this subpart." The EPA would additionally add Table 1E to list the PFAS subject to reporting, consistent with the PFAS list included as part of the TRI. The EPA would further add paragraph (3) to proposed 40 CFR 51.12(b) to read "For point sources other than major sources, reported PFAS must include any pollutant listed in Table 1E to Appendix A of this subpart when the annual actual emissions of that pollutant or pollutant group is greater than or equal to the PFAS reporting threshold." The threshold would be 0.05 tpy of total emitted PFAS-based on the TRI requirements set

by Congress.⁴⁰ Finally, the EPA would change proposed 40 CFR 51.15(1) to read "If the EPA has approved a HAP and PFAS reporting application as per § 51.1(d)(2) and § 51.1(d)(3) of this subpart, a State must report emissions of HAP and PFAS consistent with § 51.12(b) and (c) of this subpart. A State may report one or more HAP or PFAS voluntarily through the 2025 inventory year and may not report HAP or PFAS without an approved application starting with the 2026 inventory year."

The EPA recognizes that aligning with the TRI requirement sets a reporting threshold for the purposes of the AERR that uses the same value for a different purpose, because the TRI reporting threshold is based on single PFAS manufacturing, processing, and otherwise use of the given PFAS and therefore may not capture emissions from sources with cumulative PFAS emissions in air greater than or equal to 0.05 tpy. Nevertheless, this PFAS Option, if included in the final rule, would set an air emissions reporting threshold at the 0.05 tpy level.

By proposing this threshold for the AERR, the EPA is aligning the thresholds as best as possible to reduce complexity and burden. The EPA's proposed approach for the AERR is a less stringent threshold than the TRI threshold because facilities that manufacture, process, or otherwise use PFAS would likely not emit all of that material to the air. As such, the EPA is not adding any burden on facilities to recognize that they may need to report to the AERR, but rather to estimate their PFAS emissions at the level of detail proposed. Collecting PFAS emissions data using these proposed requirements could be a step towards meeting OAR's goals from the EPA PFAS Strategic Roadmap. The EPA is soliciting comment on the PFAS option for including mandatory reporting on PFAS in the final rule.

B. Collection of Emissions From Point Sources Not Reported by States

The EPA's mission includes protecting human health and the environment for the entire population, and emissions inventory data are a foundational piece of such work. To meet this mission, the EPA intends for the NEI to be a complete accounting of emissions from all facilities that meet the point source reporting thresholds defined by this subpart; however, this objective cannot be met when certain

⁴⁰ See Section 7321 of the National Defense Authorization Act for Fiscal Year 2020, Public Law 116-92 (Dec. 20, 2019). There, the threshold for reporting is expressed as 100 pounds which is equivalent to 0.05 tons.

facilities are not included. Furthermore, the communities near such facilities may not have equitable access to emissions data about those facilities when compared with other communities. The EPA cannot account for the impacts of those sources on their communities without the same detailed emissions data as is available for other sources. The EPA has identified cases in which point source emissions are not included in the NEI, even though their PTE or actual emissions exceed the CAP reporting thresholds in the current AERR. In all cases, the EPA proposes that owners/operators would report both HAP and CAP data to the EPA under this subpart. The HAP reporting provisions described in section IV.A of this preamble apply to such owners/operators; therefore, this section addresses several cases where CAP emissions would also need to be reported and clarifies reporting requirements for facilities operating in Federal waters.

The EPA is proposing regulatory revisions to address these issues for two reasons. First, the EPA created the NEI program using input from many stakeholders and is considering updates to the AERR based on additional input. For example, the EPA Regional offices have noted the lack of emissions data in some areas of Indian country and the resource challenges that some tribes have, which make it difficult for a tribe to apply for TAS or to collect emissions data. Regional offices adjacent to areas of Federal waters with offshore oil activity, fish processing ships, deep water ports, and wind turbine construction have also noted the lack of emissions data for those activities. Second, the cases of missing facilities described above impede the ability of the Agency to meet its mission because it does not have the foundational data about emissions sources necessary to assess impacts from those sources, among other limitations. In addition, since emissions from more sources could be reported because of the HAP requirements of this proposed action, the problem of missing sources could expand if not addressed by this proposal.

1. Facilities on Land Not Reporting Under the Current AERR

As previously described in section III.A.3 of this preamble, some facilities are not reported because the facility is not located within the geographic scope of the State's (defined previously in this preamble to include local agencies and tribes that have obtained TAS for submission of emission inventories) implementation planning authority.

This can occur, for example, for a facility that operates within an Indian reservation for a tribe that has not obtained TAS for submission of emission inventories.

States may not report certain other facilities when EPA issues a Federal permit, even though the facility is located within the geographic scope of a State's implementation planning authority. When the State has developed its emissions inventory collection program based on only those facilities for which the State issues operating permits, the State or local agency might assume that it is not obligated to report the emissions because it has not permitted the source.

The primary challenge with collecting data from such sources under the current AERR is that reporting is only provided from States. The reported emissions data are, therefore, somewhat limited to what States collect and report. In the case of facilities that are located on lands outside the geographic scope of a State's implementation planning authority and are rightly not reported by a State, the current AERR structure does not provide a mechanism for collecting that data.

For facilities that have EPA-issued, rather than state-issued, operating permits, the EPA has evaluated the current AERR to determine if States are correct when they do not report emissions data for these facilities. The existing version of this subpart says at 40 CFR 51.15(b) that "[e]missions should be reported from the following sources in all parts of the State, excluding sources located within Indian country." This language suggests that there is no exemption for sources where the State does not issue an operating permit. Additionally, 40 CFR 51.25 reads "[b]ecause of the regional nature of these pollutants, your State's inventory must be statewide, regardless of any area's attainment status." Further review of the current AERR finds no exemptions for facilities that are not permitted by the State. As a result, the EPA does not need to propose any additional requirements in this action for States reporting CAPs. However, to ensure clarity with regards to the existing requirements, the EPA proposes to add the clarification to § 51.1(c)(1) of this subpart that "a lack of state permitting for point sources or pollutants associated with them does not exempt a facility or pollutant from being reported by the State."

In the case of sources missing from the inventory because the facility is located outside the geographic scope of a State's implementation planning authority, the owner/operator reporting

approach of this proposed action, described in section IV.A.5 of this preamble, already provides for reporting HAP and incidental CAPs directly from owners/operators of those facilities. This requirement has not been previously included in the AERR. To resolve the problem of missing sources from the NEI, the only additional requirement needed in this proposed action would be to require owners/operators to report CAP emissions to the EPA for facilities that meet the CAP reporting thresholds in Table 1A to Appendix A of this subpart, and that are within Indian country where not already reported by a tribe or State.

The EPA is also considering those owners/operators of certain sources located within an Indian Reservation in Idaho, Oregon, and Washington who must register and report certain emissions data to EPA Region 10 under 40 CFR 49.138. This regulation is part of a set of regulations that have been incorporated into Federal implementation plans for 39 Indian reservations for those three States. The set of regulations is known as the Federal Air Rules for Reservations (FARR) in Idaho, Oregon, and Washington. The EPA has proposed revisions to the FARR on October 12, 2022 (87 FR 61870), and the EPA has also considered these proposed changes in relation to the proposed requirements of the AERR. The current requirements specify at § 49.138(b) that it applies to "any person who owns or operates a part 71 source or an air pollutant source that is subject to a standard established under section 111 or section 112 of the Federal Clean Air Act." The rule also applies to other owners/operators of air pollutant sources including sources that have a PTE of 2 tpy or more of any air pollutant, except for sources meeting criteria for a significant list of exemptions.

Under the current and proposed FARR registration rule, the owners/operators subject to the requirements of § 49.138 must register their air pollution source with the Regional Administrator of EPA Region 10 (initially and annually) with specific requirements for information to be included in such registration. The provision for registration includes reporting of information to the Regional Administrator that is very similar to the facility inventory and annual emissions reports included in this proposal. Emissions reporting under § 49.138 is limited to Particulate matter, PM₁₀, PM_{2.5}, SO_x, NO_x, CO, VOC, Pb, NH₃, fluorides (gaseous and particulate), sulfuric acid mist (H₂SO₄), hydrogen sulfide (H₂S), total reduced sulfur (TRS),

and reduced sulfur compounds, including all calculation for the emissions estimates. The requirements include specific provisions, similar to section IV.A.6 of this preamble, that specify the priority of which emissions estimation approaches should be used. This existing rule requires additional activities, the specifics of which are not critical to this preamble. While the current rule does not include any specific electronic submission or formatting requirements, for the past 7 years sources have been voluntarily submitting their registration and emissions reports through an electronic reporting system called the FARR Online Reporting System (FORS). The revisions proposed to 40 CFR 49.138 included requiring electronic reporting via FORS.

In comparison to the requirements of this proposal, 40 CFR 49.138 impacts the same major sources within the affected Indian country. In addition, 40 CFR 49.138 would impact some of the same non-major sources covered by this proposal because the 2-ton PTE reporting threshold in that rule is much lower than the major source PTE thresholds for CAPs and actual emissions thresholds for HAP in this proposal. Without creating a limited exception within this proposal, those sources would have duplicative requirements since many of the pollutants required in that rule overlap with pollutants the EPA is considering requiring under this subpart. Lastly, there are differences in the pollutants being reported between 40 CFR 49.138 and this proposal because (1) this proposal does not include reporting of emissions of fluorides, H₂SO₄, H₂S, TRS, or reduced sulfur compounds, and (2) this proposal includes many more HAP than are required under that rule.

As a result of these considerations, this action proposes to require owners/operators of facilities located within Indian country and not being reported by a tribe or State to report all CAPs directly to EPA when the PTE or actual emissions of one or more such pollutant exceeds the reporting thresholds in Table 1A to Appendix A of this subpart. This requirement is complementary to the previously described HAP reporting requirements. For facilities meeting the CAP PTE thresholds, owners/operators would need to report all CAP pollutants and the incidental CAP requirement would not be relevant to those facilities.

To avoid unnecessary burden for owners/operators of facilities for which emissions data must be reported to the EPA under 40 CFR 49.138 as described above, the EPA also proposes that certain owners/operators would be

exempt from the requirements of this subpart for reporting emissions of any pollutants already being reported under 40 CFR 49.138. The EPA additionally proposes that owners/operators in that situation may, at their option, report such exempt pollutants to the EPA electronic reporting system along with any information that is required to be reported under this subpart. The limited exemption to the AERR requirements would only apply to data that are already being reported to the EPA under 40 CFR 49.138 for facilities on Indian reservations in Idaho, Oregon, and Washington. If a facility is subject to requirements in the AERR and 40 CFR 49.138, then the owner/operator of that facility would still be required to report under the AERR for those data that are not reported under 40 CFR 49.138.

While the proposed approach avoids some duplication of burden, the EPA recognizes a different approach could further reduce duplicative reporting. The EPA intends to adapt CAERS so that it would allow emissions reporting to the EPA through CAERS to meet the compliance requirements of 40 CFR 49.138. To do this, the EPA would ensure that all elements of 40 CFR 49.138 would be met as part of electronic reporting via CAERS. Once EPA develops and provides a CAERS compliance approach for owners/operators to meet reporting requirements of 40 CFR 49.138, EPA expects that CAERS would replace the current FORS data collection system.

2. Facilities Within Federal Waters

Under the current AERR, States are not obligated to report emissions from offshore facilities operating in Federal waters because States generally do not have jurisdiction over such sources. The EPA has jurisdiction over certain air emissions activities within Federal waters, including OCS sources subject to regulation under CAA section 328. To address this gap in emissions data, the EPA is proposing provisions to address: (1) which owners/operators of facilities in Federal waters would need to report, (2) what data would need to be reported, and (3) how that data should be reported. The EPA is requesting comment on whether these reporting requirements would be duplicative.

First, regarding which owners/operators operating in Federal waters would report under this proposed action, the EPA is aware that many facilities already report emissions data to the Bureau of Ocean Energy Management (BOEM), which in turn reports these data to EPA. To avoid such facilities being subject to AERR requirements, the EPA proposes at

§ 51.1(a)(2) that owners/operators would be required to report for facilities that operate within Federal waters, including (1) deepwater ports subject to CAA requirements under the Deepwater Port Act, and (2) OCS sources as defined in CAA section 328(a), with the exception of: owners/operators of facilities that are regulated under 43 U.S.C. 1331 *et seq.* (the Outer Continental Shelf Lands Act) and that are located (a) offshore of the North Slope Borough of the State of Alaska, or (b) offshore of the United States Gulf Coast westward of longitude 87 degrees and 30 minutes (*i.e.*, offshore Texas, Louisiana, Mississippi, and Alabama).

Second, the EPA is considering which data would need to be reported by owners/operators of these facilities. Many OCS sources and other facilities in Federal waters are subject to the requirements of Federal or State title V operating permit programs that contain emissions reporting requirements and, in some cases, require permittees to annually quantify actual emissions for purposes of calculating permit fees. For those facilities subject to title V emissions reporting and/or emissions quantification requirements, the EPA proposes that owners/operators should use the same approaches to identify the emissions sources of such facilities and to estimate and submit emissions data under this subpart. Emissions sources at such facilities may include portable sources (*e.g.*, drill rigs), operation of units that, if on land, would be stationary sources (*e.g.*, boilers, control devices, chemical processing equipment, refrigeration units), and marine vessels (*e.g.*, engines that power the movement of service vessels within 25 miles of an OCS source, and marine vessel engines used for other purposes when stationary).

In addition, the EPA proposes to require owners/operators of facilities in Federal waters (as described above) to report all CAPs when the PTE or actual emissions of one or more such pollutant exceeds the reporting thresholds in Table 1A to Appendix A of this subpart. This requirement is complementary to the previously described HAP reporting requirements. For facilities meeting the CAP thresholds, owners/operators would need to report all CAP pollutants and the incidental CAP requirement would not be relevant to those facilities.

Third, the EPA is assessing how these owners/operators should report emissions data. In addition to meeting the other point source reporting requirements under this subpart, the EPA proposes a requirement for facilities operating in Federal waters to report emissions using the Federal

waters region codes provided in the EPA electronic reporting system. Because these Federal water regions are extremely large, the EPA expects that most facilities will only operate within a single area, but when portable facilities operate in multiple areas of Federal waters, owners/operators would need to report those emissions separately with different Federal waters region codes.

Lastly, to support this proposed approach, the EPA further proposes the definition of Federal waters to mean those waters over the “Outer Continental Shelf” as defined in the Outer Continental Shelf Lands Act (43 U.S.C. 1331(a)).

The EPA also recognizes the possibility of duplicative reporting related to any reporting that may be required by permits and/or for assessing title V permit fees. To help avoid duplicative burden, the EPA urges commenters to describe any duplicative burden that this proposal may cause for emissions reporting.

C. Source Test Reporting

To improve the data available to the EPA, States, and sources to estimate emissions, the EPA proposes to require electronic source test reporting (as first explained in section III.A.3 of this preamble) from point sources for certain source tests. This action would require such reporting for source tests already required to be performed, to help improve emissions factors. An emissions factor is a key tool used in the creation of emissions inventories, for example, to estimate air pollutant emissions from a normally operating, point-source process or activity (e.g., fuel combustion, chemical production). An emissions factor relates the quantity of pollutants released to the atmosphere from a process to a specific activity associated with generating those emissions. For most application purposes, emissions factors are intended to represent the average emissions for all emitting processes of similar design and characteristics (i.e., the emissions factor represents a population average). As such, emissions factors provide an emission rate that may be appropriate for use by owners/operators of facilities when site-specific source measurements of an emission process are not available. While greater uncertainty is associated with use of emissions factors as compared to site-specific source measurements, it is nevertheless important to ensure that emissions factors are high quality.

EPA’s most recent approach to develop emissions factors has been prepared in response to a review of

EPA’s emissions factors program by the National Academy of Sciences and EPA’s Office of Inspector General. In 2006, that review resulted in the Inspector General report previously referenced in section IV.A.3 of this preamble. As described in EPA’s most recent documentation on emissions factor calculation procedures,⁴¹ the EPA revised its emissions factor calculation approach in response to that report. The EPA’s emissions factor procedures rely on direct measurement of releases from point source processes or activities (i.e., a sample of the process emissions is collected and analyzed). Hereafter, such measured emissions data from a source will be referred to as “source test data.” EPA’s progress on improving emissions factors is limited to the available source test data received by the Agency.

As previously described in section IV.A.4 of this preamble, this action proposes to require emissions reporting of annual total HAP from owners/operators. The benefit of this HAP emission collection program, however, depends on the quality of the annual emissions data reported by owners/operators of facilities. The quality of the annual emissions totals depends in part on the availability and quality of the emissions factors, which in turn depend on the availability and quality of HAP emissions source test data.

While the Inspector General report highlighted the lower-than-desired quality of published emissions factors, the EPA has thus far been unable to revise many of these factors and continues to be limited in part by the lack of source test data. This limitation remains despite EPA’s efforts to revise its regulatory framework of stationary source emissions reporting to include electronic source test data reporting as a component of industry-specific regulations included in 40 CFR parts 60, 61, 63, etc.⁴² The pace of progress on improving these factors to date has been limited in part by the gradual nature of adding industries and pollutants one regulation at a time. In addition, since those regulations address specific pollutants and, in some cases, allow for reporting of emissions of one pollutant (such as filterable PM_{2.5}) to serve as a surrogate for other pollutants (such as specific HAP metals), sources do not

always conduct tests for, and the EPA does not receive data for, non-surrogate pollutants.

In addition to the recommendations of the Inspector General Report, States have long expressed their concerns with the many missing emissions factors in addition to the low-quality emissions factors included in EPA’s AP-42 and WebFIRE emissions factor compilations. These State concerns have been compiled and included in the docket for this proposed action. Despite these concerns, these emissions factor compilations largely remain a foundational piece of emissions inventories. The States and the CAERS application use AP-42 and WebFIRE emissions factor data to support owners/operators of facilities by providing the emissions factors directly within the emissions calculation tools used during emissions reporting. While owners/operators are expected to use site-specific source test data to calculate and report emissions when available and appropriate for that use, the emissions factors are often the only emission rate information available. Thus, improving the quality of the emissions factors is central to improving emission inventory quality overall.

With this proposed action, the EPA is seeking to improve emissions factors to support improved emissions inventories via the proposed collection of additional source test data. The EPA has recently completed the updates to the WebFIRE system that automates most of the emissions factor development processes described by the emissions factor procedures document previously mentioned. As a result of these efforts, the EPA issued its first set of revised emissions factors for public review in November 2021.⁴³ Now that the development procedure infrastructure is largely completed, the EPA finds that increasing the amount of source test data by obtaining information from the thousands of emissions processes and hundreds of pollutants included for stationary sources in the NEI is a logical progression in emissions factor improvement. By improving emission factors, emissions estimates are improved as well, supporting the needs for high quality data to support EPA’s regulatory and non-regulatory activities as described in section IV.A of this preamble.

To assess the feasibility of further collection of source test data and gathering information to design the proposed approach, the EPA is

⁴¹ Recommended Procedures for Development of Emissions Factors and Use of the WebFIRE Database, U.S. EPA, EPA-453/B-21-001, November 2021, <https://www.epa.gov/air-emissions-factors-and-quantification/procedures-development-emissions-factors-stationary>.

⁴² A complete list of regulations that require reporting to CEDRI is available on EPA’s website at <https://www.epa.gov/electronic-reporting-air-emissions/cedri#list>.

⁴³ See <https://www.epa.gov/air-emissions-factors-and-quantification/documentation-supporting-draft-and-final-emissions-factors>.

considering (1) whether source test data are readily available or could be readily available, (2) how such data could be collected electronically and efficiently, (3) which existing data would be of interest to the agency, and (4) how to phase in any new reporting requirements.

The EPA is aware that direct measurements of facility or process emissions are conducted for a variety of reasons, including characterizing process emissions and/or control device performance, assessing changes in process or control device operation on emissions, and demonstrating compliance with Federal, State, local, or tribal air regulations. Emissions testing may also be conducted as part of performance evaluations such as relative accuracy test audits (RATAs). Performance evaluations include linearity checks (which measure an instrument's ability to provide consistent sensitivity throughout its operating range) and routine calibrations of continuous emissions monitoring system (CEMS) equipment, which provide emissions data much more frequently than testing. Emissions data from CEMS are mostly used for compliance purposes but can also be used for emissions factor development. The reasons why such testing and evaluation occurs includes both the CAP and HAP aspects of air quality planning and implementation. Thus, these activities are conducted for a larger range of pollutants than would be available from reporting required by regulations under 40 CFR parts 60, 61, and 63, including those that have been updated for electronic reporting and those that continue to require testing and reporting by other means. Based on this information, it appears to the EPA that additional unreported test data are readily available.

To aid owners/operators in planning and reporting the results of emissions tests, the EPA developed the Electronic Reporting Tool (ERT), and CEDRI. Further, the EPA has required their use in the revised regulations previously described. The ERT is used by companies that perform emissions testing for industrial sources and has been in use for over 10 years. As the EPA has promulgated regulations to require electronic reporting with the ERT, it has modified the ERT and CEDRI to make sure that they support the source measurement methods required by those regulations. As a result, the EPA has been collecting source test data for selected pollutants from facilities regulated by those revised rules for many years. The ERT and CEDRI collection infrastructure, in addition to

the recently implemented WebFIRE emissions factor calculation procedures, will help ensure an efficient approach for data collection and emissions factor development.

Information collected by the EPA from the companies that perform source measurements for industrial sources supports the idea that electronic reporting for all pollutants via the ERT is commonly supported by these companies. The EPA understands that it would be rare to find any of these companies unfamiliar with the reporting via the ERT. Some of our experience suggests that companies may find it more difficult and more costly to prepare and submit reports in hard copy (*i.e.*, paper test reports) rather than reporting electronically, since much of the data collection process has been made electronic.

The EPA also is considering whether source test data should be reported to the EPA directly by owners/operators or via the States. States currently collect some test data as part of their implementation of source permits and compliance, for example, when States require such tests for their own reviews of emissions from stationary sources. Given this current reporting, it is reasonable to expect that some States may want to provide source test data to EPA. Such an approach might parallel reporting that is currently done for CAP emissions and can be done for HAP emissions. Including States in such reporting could have the advantage of potentially meeting the needs of those States that wish to be intermediaries or review the facility source test prior to it being reported to the EPA for use in emissions factors.

The possible disadvantage of States reporting the source test data could be the added complexity that such an approach may cause. With the existing CEDRI approach currently in place, States have a period during which they may optionally review the source test results and advise the EPA regarding the validity of the source test and any data quality concerns that the State may have. In addition, when current EPA regulations require source tests, they require that data to be reported directly from owners/operators of stationary sources. Any difference that might be proposed from that current approach could have a further disadvantage of causing inconsistencies for owners/operators in how to report source test data. Specifically, reporting under such an approach could depend on whether the requirement to report for a pollutant and process was under any finalized version of this proposed action or under one of the other subparts of 40 CFR that

require such reporting. As a result of these significant disadvantages, the EPA expects that any proposed action would be most efficiently and effectively implemented through direct reporting of source test data to the EPA from owners/operators and continuing to allow for State review and comment.

The EPA has additionally reviewed the requirements of the ERT to ensure that the data collected with the ERT would be sufficient for the purpose of generating emissions factors. To be able to use the source test data for purposes of emissions factors, the EPA has identified four additional types of information that are necessary to provide a complete characterization of a unit's emissions in relation to its operation. These are (1) the capacity of the unit being tested, (2) the load of the unit during the testing period, (3) the level of activity of the unit and operating conditions of the unit during the testing period, and (4) process data (*e.g.*, temperatures, flow rates) pertaining to the unit and its control devices during the testing period. All four of these are key components to ensuring emissions factors appropriately represent unit operation. For example, NO_x emission rates from a unit operating at 50 percent load using natural gas with 50 gallons per hour of ammonia injection differ from a unit operating at 95 percent load using fuel oil with 75 gallons per hour of ammonia injection. As a result, correctly computed emissions factors from these separate modes could differ as well. Without the full information, the EPA may not be able to discern the differences in unit operation and incorrectly combine source test data, which could lead to emissions factors erroneously assigned to certain combinations of units, processes, and controls.

As a result of these considerations, the EPA proposes to require owners/operators of point sources to report performance test results and performance evaluations that meet the following conditions: (1) data would only be reported (under this proposed rulemaking) when they are not otherwise reported to the EPA based on regulations listed at <https://www.epa.gov/electronic-reporting-air-emissions/cedri#list>; (2) the data are gathered to meet any other EPA or State requirement; (3) the data are supported for reporting by CEDRI or an analogous electronic reporting system; and (4) the results were not from a project, method, device, or installation (or any component thereof) that was produced, developed, installed, and used only for research purposes. This final criterion

was added to avoid any potential conflict between the definition of confidential data and the treatment of “emission data” in accordance with 40 CFR 2.301. More information on the issue of confidential data for this proposed action is available in section IV.H of this preamble.

The EPA is seeking comment on these criteria. Specifically, the EPA would be interested in knowing of examples of tests that meet these criteria, but which do not meet the EPA’s objective as described in this section to support emissions factors. If such examples exist, the EPA is further interested in suggestions of how to revise, or supplement, the criteria to avoid collecting such information that does not meet the objective of this section.

Additional aspects of EPA’s proposed approach to collect source test data include the following. The proposed reporting, if finalized, would be limited to include source tests and performance evaluations beginning on the effective date provided in the final rulemaking. It would require submission of data via CEDRI, including the four types of information as previously noted: (1) capacity of the unit being tested, (2) the load of the unit, in terms of percent capacity, during the testing period, (3) the level of activity of the unit during the testing period (*e.g.*, input consumption rate, product consumption, heat input, and/or output production rate), (4) operating conditions of the unit during the testing period, and (4) process data such as temperatures, flow rates, pressure differentials, pertaining to the unit and its control devices during the testing period. The ERT would need to be used when it supports the source test or performance evaluation and, in other cases, a spreadsheet-based approach could be required. Finally, each report would need to be submitted by the scheduled date required by the State or Federal action motivating the test. When no such date exists, the report would be required within 60 days of completing the source test or performance evaluation.

D. Reporting for Certain Small Generating Units

With this proposed rulemaking, the EPA seeks to solve long-standing challenges associated with emissions from certain types of intermittent combustion sources. Interest in emissions and ozone formation on high energy demand days (HEDDs) has led the EPA to consider collecting information from sources that operate to offset electricity demand from the electricity grid during these times. The

EPA already collects detailed data from EGUs through the Clean Air Markets Program, which requires reporting of hourly data from CEMS as specified by 40 CFR part 75. In addition to these sources, other electricity units including small generating units (less than 25 MW or otherwise not subject to reporting under 40 CFR part 75 or the mercury air toxics NESHAP at Subpart UUUUU of 40 CFR part 63) and backup generators (BUGs) are run periodically both to offset grid-based energy needs at energy intensive facilities and to generate electricity for the grid. These sources may contribute significantly to tropospheric ozone on high-temperature days in some areas, leading to public health concerns. As climate change is expected to result in warmer summers, the use of this distributed generation could increase. While such data are important to better understand the environmental impacts of these sources, the EPA is not currently collecting such data from States or owners/operators.

Without data collection, EPA’s understanding of these sources is limited. First, the EPA lacks important details about intermittent activity of these sources. For understanding ozone impacts, the EPA and States have a compelling need to know when emissions occur on a finer temporal resolution than typical annual emissions (*i.e.*, which days). Without such information, past studies⁴⁴ have shown that efforts to model HEDDs fail to fully characterize ozone formation on such days.

Second, the EPA has reason to question the emission rates that would be appropriate for estimating emissions from such sources. Existing emission rates (*i.e.*, emissions factors) for all units of any type are based on emission source testing methods that are correctly used during steady State operation of the emission unit to achieve valid emission tests. By contrast, the operation of these intermittent sources means that they are frequently turned

on and off, which has an unknown impact on the resulting emissions. As an illustration of the issue, it is common knowledge that engines run more efficiently (thus more cleanly) once they have warmed up. To the extent that units run periodically spend more time in an inefficient State of operation, they would be expected to have higher emissions rates. However, the impact of such operation is not well understood, and the EPA is not aware that it has been quantified.

Over the past two decades, States and multi-jurisdictional organizations have discussed with the EPA the possible importance of intermittent sources on air quality. While some proposals have been put forward to reduce the problem of emissions from these types of intermittent units, the full understanding of the problem has been limited based on lack of available data.

In a 2017 publication, researchers from the University of Wisconsin-Madison linked peak electricity demand to high levels of air pollution.⁴⁵ Using data collected from 27 States between 2003 and 2014, the researchers showed that the electricity used to power air conditioners increased emissions of SO₂, nitrogen oxides, and carbon dioxide (CO₂) by an average of almost four percent for each pollutant per degree Celsius increase, above a certain reporting threshold.

While they have received more attention in recent years, emissions from these small generating units have been historically challenging to track, a fact that has contributed to EPA’s aim to understand and improve the data in this sector. The EPA recognizes that emissions from small generating units may increase as extreme weather and temperature events are likely to become more frequent.⁴⁶ Alongside this potential rise in emissions are increases in public health risks from tropospheric ozone formation, as well as nitrogen oxides and PM emissions.

As a result of past investigations, some States have explored how they can gather information about intermittent sources. For example, the Maryland Department of Environmental Quality (MDEQ) requires that Curtailment Service Providers (CSPs) provide data to the State under COMAR 26.11.36.04.

⁴⁴ Northeast States for Coordinated Air Use Management, *High Electric Demand Day and Air Quality in the Northeast*, 2006. <https://www.nescaum.org/documents/high-electric-demand-day-and-air-quality-in-the-northeast/final-white-paper-hi-electric-demand-day-06052006.pdf>. Ozone Transport Commission, Stationary and Area Source Committee, HEDD Workgroup, *White Paper: Examining the Air Quality Effects of Small EGUs, Behind the Meter Generators, and Peaking Units during High Electric Demand Days* 2016. https://otcair.org/upload/Documents/Reports/HEDD_Workgroup_White_Paper_Final_2016-11-10.pdf. Ozone Transport Commission, Stationary and Area Sources Committee, *Strategies to Reduce Emissions of Nitrogen Oxides on High Electric Demand Days*, 2017. https://otcair.org/upload/Documents/Meeting%20Materials/OTC_HEDD_Workgroup_Strategies_Whitepaper_Final_Draft_08282017.docx.

⁴⁵ Abel et al., *Response of Power Plant Emissions to Ambient Temperature in the Eastern United States*, *Environ. Sci. Technol.*, 50, 10, 5838–5846, 2017. See also <https://www.acs.org/content/acs/en/pressroom/newsreleases/2017/may/keeping-cool-in-the-summer-leads-to-increased-air-pollution.html>.

⁴⁶ U.S. Global Change Research Program, *Fourth National Climate Assessment, Volume II, Impacts, Risks, and Adaptation in the United States*, Chapter 4: Energy Supply, Delivery, and Demand, 2018. <https://nca2018.globalchange.gov/>.

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 BUGs that can reduce demand from the electricity grid. The Maryland regulation requires CSPs to report information about the units they administer, including unit capacity, manufacturer, and model as well as the types of fuel used and information about the days and hours of operation. It also sets an exclusionary threshold based on output. It excludes emergency stationary engines with an output less than 500 horsepower (hp) and excludes non-emergency stationary engines with an output less than 500 hp that serve as a primary source of power for agricultural equipment or industrial equipment. While this information only partially addresses the needs for the State, discussions with MDEQ identified that the information collected has helped the State understand the scope of the intermittent unit emissions. This example provides some evidence that partial data collection can inform the larger temporal patterns in emissions associated with intermittent sources.

The EPA is also aware that federally enforceable regulations can limit the ability of source operators to deploy older or more polluting engines. Examples of such regulations include the NESHAP for Reciprocating Internal Combustion Engines (RICE) in 40 CFR part 63, subpart ZZZZ; the New Source Performance Standard (NSPS) for Stationary Compression Engines in 40 CFR part 60, subpart IIII; and the NSPS for Stationary Spark Ignition Engines in 40 CFR part 60, subpart JJJJ. These rules define allowable emission rates and, as a result, limit the types of sources that can be deployed. These rules do not restrict use of units that meet the emissions standards, which can be deployed for electricity generation during HEDD periods, and these rules do not collect information that would help understand the impact of such sources.

The EPA also is considering the uncertainty associated with emissions rates from units that are operated intermittently, as previously described. This consideration is important because it impacts whether the EPA would require reporting of emissions values and/or other emissions data such as fuel use and unit types. If emission values (*i.e.*, mass of pollutants) were provided alone, then whatever emissions rates were selected by data reporters would be the basis for the emissions. In this case, the EPA would not be able to

adjust the emissions based on any improved emissions rate data that may become available. Additionally, with emissions values alone, the EPA would not be able to explore the impact of different emissions rates on the ability of the data to better predict modeled air quality. Thus, based on the limitations that would be imposed, the EPA is proposing to collect information on fuel use or heat input and unit types.

The EPA is considering all the factors described above and has weighed the importance and long-standing need for the data to understand ozone formation in some areas, the uncertainty associated with emissions rates, and the potential burden of the various options available. The EPA is considering the potential burden that could be caused by requiring emissions or activity data reporting from States from small generating units used to reduce electricity demand or meet that demand during peak energy needs. Any requirements imposed on States by this proposed action could in turn be imposed by States on their sources for collection by the State and subsequent reporting to EPA. The EPA also recognizes the great deal of uncertainty about units associated with HEDDs and has included in this preamble one proposed approach, one additional option, and 2 additional alternatives that the agency is considering.

Based on these considerations, the EPA is proposing requirements for some States and certain owners/operators. First, the EPA proposes that States would report facility inventory information (*e.g.*, unit characteristics) and daily fuel use or heat input data for units that operate during the year at point sources (as defined by this proposed action) and that meet specific criteria. Those criteria are (a) the hourly or daily emissions and activity data from the unit are not otherwise reported to the EPA, (b) the unit was operated to offset electricity demand from the electricity grid, and (c) the unit is located at a facility that operates on land. This approach is intended to collect data for the appropriate units and avoid duplication with any reporting done as part of other EPA requirements. By limiting reporting to those small generating units for which hourly or daily heat input data are not otherwise reported, EPA would ensure that data reported to the EPA to comply with 40 CFR part 75 or other regulations would not need to be re-reported under the AERR.

Second, the EPA proposes to require owners/operators of facilities located outside the geographic scope of States' implementation planning authority to

report for units at point sources that meet the same criteria as the units that would be reported by States. For the purposes of this preamble, the units covered by the proposed requirement just described will be referenced as "small generating units".

Third, the EPA proposes a definition of small generating units to mean "any boiler, turbine, internal combustion engine or other unit that combusts fuel on an occasional basis to generate electricity for the electricity grid or for on-site use by a facility other than for emergency use." Because the proposed reporting requirement would not cover any units already reporting to the EPA and would cover units only at point sources that are already being reported to EPA, the EPA does not believe that the definition needs to specifically identify by size which units are "small," since larger units are presumably reporting because of their size based on other regulations.

The data elements that the EPA proposes would be reported include identification of each small EGU used to offset electricity demand from the electricity grid for a given year; the unit's rated capacity in hp and kilowatts; the unit's manufacturer and model; the installation date of the unit; source classification code (including the fuel type); and for each day of operation: the emissions reporting period, reporting period type as daily, date of activity, fuel used or heat input and associated units of measure, and optionally the start hour and end hour of operation. These small generating units would need to be reported to reflect the data fields included in proposed Table 2A to Appendix A of Subpart A and Table 2C to Appendix A of Subpart A. Finally, the EPA proposes that this reporting would start with the 2026 inventory year and that the deadline for such reporting would be one year and 15 days after the year after the inventory year (*e.g.*, the deadline for reporting 2026 emissions would be January 15, 2028).

Under these proposed requirements, States would have the flexibility to either collect the data from the CSPs (where such entities exist) or from the owners/operators of facilities that operate small generating units. This implementation could include other entities, such as large energy companies, that also have agreements with other companies to deploy small generating units periodically under certain circumstances. The EPA expects that collecting that data from the CSPs or other types of companies with demand reduction agreements would provide the lowest burden option for States.

Additionally, the EPA expects that the CSPs and other companies aggregating demand side reductions could be in the best position to gather from the owners/operators of small generating units the data that needs to be reported as part of their normal operations. This design could reduce burden because the number of CSPs and other companies with demand reduction agreements within a State could be far smaller than the number of facilities with small generating units that operate in any particular year.

The proposed requirements would require activity data for small generating units in addition to the State's best estimate of annual emissions for small generating units that are already required under the current AERR and proposed to continue to be included under this action. The EPA recognizes the challenges of estimating such emissions based on the measurement challenges for startup/shutdown conditions noted above regarding emissions factors.

The EPA is proposing these requirements in part based on the idea that by obtaining data from some of the small generating units (*i.e.*, those operating at point sources as defined by this proposal), enough information could be collected about temporal patterns to allocate emissions from the remaining small generating units. Those other emissions from small generating units are currently covered in the NEI as part of the nonpoint county-total emissions based on overall State fuel consumption and available emissions factors. Under the proposed requirements, the EPA would collect more limited data from point sources as defined and extrapolate that the temporal patterns apply to the portion of nonpoint fuel combustion data associated with small generating units.

The proposed requirements have at least two limitations. First, since the nonpoint fuel combustion emissions are based on standard emissions factors, they may not accurately reflect startup/shutdown related emissions from such units. Second, the proposed requirements are incomplete because they limit the units required to be included to only those units at point sources as defined by the proposed point source definition in this action. Many BUGs and other units deployed for demand reduction are located at retail establishments that are unlikely to be major sources (because of low emissions) and are specifically excluded from the definition of non-major sources by the NAICS codes the EPA is proposing to be included in this proposal. Not having all units would

create two challenges: (a) the EPA would need to determine with some other data source what portion of the nonpoint fuel combustion should be temporally allocated based on the data collected because this proportion may vary with each year in relation to temperatures and the deployment of units for demand reduction; and (b) the incomplete set of units also would not include the spatial detail that would otherwise be achieved by having coordinates for all individual units operated to meet peak energy needs.

As part of the proposed requirements described above and to avoid the associated limitations, the EPA is co-proposing and requesting comment on one option and two alternatives. None of these options addresses the limitation of emissions factors during startup and shutdown, but they do either collect activity data from more units or limit the data collection to reduce burden. The proposed requirements described above are referenced below as the "preferred alternative."

The EPA proposes an option to require a one-time collection from all small generating units for a single year. The EPA is considering including this "One-time Collection Option" in addition to the preferred alternative and is also considering whether to use the One-time Collection Option as the sole approach in any final action. To accomplish the one-time collection, the EPA would require CSPs and other operators or aggregators of small generating units (not States or owners/operators of point sources) to report to the EPA the same data elements as are described in the preferred option (*i.e.*, the facility inventory and daily fuel use or heat input) for either the 2024 or 2025 inventory year. The EPA would select which year in the final rule. The deadline for such reporting would be October 31 the year after the inventory year (*e.g.*, for 2024 reporting, October 31, 2025).

The One-time Collection Option would help the EPA to determine whether and how to implement an annual reporting requirement, and it could inform the development of some predictive model to avoid a need for annual reporting. For example, a one-time study could allow for correlation between the one-time data and other routinely available data (such as temperature, fuel prices, and electricity prices), such that the EPA could use such other data to calculate emissions from intermittent generation for subsequent emission inventory years. A one-time collection could also provide locations of units included in CSPs to improve spatial allocation of nonpoint

emissions to the model grid cells for air quality modeling. In addition to providing more detailed data, an advantage of a one-time collection requirement is that it would have a lower burden on the CSPs than would an ongoing requirement. The disadvantage of a one-time requirement is that a correlation may not be found, and thus this rule would need to be further revised, delaying the receipt of such information by the EPA and States.

The EPA is also co-proposing and requesting comment on two alternative approaches that would replace the preferred alternative. With Alternative D2, the EPA proposes to expand the preferred alternative to require data from States for all small generating units that are not otherwise reported to the EPA rather than only those at point sources. Alternative D2 would not expand the point source definition in a way that would require reporting of annual emissions. Rather, Alternative D2 would require States to report the facility inventory information, estimated annual emissions, and daily activity data as described under the proposed approach, but only for small generating units. Other point source requirements for facilities with such units would apply only for those facilities that meet the point source definition included in this proposal. For example, a retail facility that is excluded because of its primary NAICS code for HAP reporting and otherwise does not emit pollutants at levels required to be reported as a point source would only need to be included in the State report for the small generating units that operated during the reporting year. If the EPA finalizes Alternative D2, the same State deadlines for point source reporting would apply. Under this alternative, no adjustment would be made for owners/operators of facilities within Indian country. Alternative D2 has the advantage of collecting more detailed data but the disadvantage of higher burden on States and the entities from which they collect that data.

Finally, the EPA is co-proposing and requesting comment on Alternative D3, which would reduce burden on States relative to the preferred alternative by requiring reporting about small generating units from only those States that have ozone non-attainment areas and those States linked to downwind non-attainment areas as would be identified in whatever transport regulatory action has most recently been promulgated by the EPA on January 1st of the emissions year. One disadvantage of Alternative D3 is that the EPA does not currently have data about whether the small generating units within non-

attainment areas are the only ones that are important in terms of impacting air quality within non-attainment areas, because the EPA does not have data on any such units irrespective of their location. In general, the EPA is aware that emissions sources outside of non-attainment areas can contribute to ozone within those areas, and small generating units could be a type of source that could contribute. In the preferred alternative, emissions data from small generating units at all point sources would be collected, and the EPA could use that information to determine which small generating units contribute to higher ozone concentrations within non-attainment areas. The advantage of Alternative D3 is that it would decrease the number of potential States required to report from 50 to 23, the number with ozone non-attainment areas, plus States linked to downwind non-attainment areas. Alternative D3 would have the same requirements for the types of units and the data fields to report as the preferred alternative but would limit the States and owners/operators that would need to report.

E. Provisions for Portable and Offshore Sources

As previously noted, the EPA intends for the NEI to include a complete accounting of point sources that meet the emissions reporting thresholds included in this proposed action. The current AERR does not clearly address some atypical cases, which include portable facilities (*e.g.*, asphalt plants) and offshore sources (*e.g.*, oil rigs, drilling engines on barges, windfarm installation vessels) within State waters. This action seeks to address both the definition of a portable facility and to ensure that such sources are reported to the NEI.

While portable facilities can move, they are not necessarily considered with the nonpoint or nonroad mobile source portion of the NEI. Under the current AERR, when these portable facilities meet the point source reporting threshold, States can report them as point sources without specific location information. In reporting portable facilities, States use a placeholder county code of “777” to indicate that those sources move around a State throughout the year. In this way, no location coordinates are then required for reports of portable facilities. The problem with the current approach is that the location of emissions is not available for modeling the air quality impacts of the source. If a portable source remains in a single location for a long enough period, then it could conceivably have impacts on local air

quality and States. The EPA, States, and the public may, therefore, benefit from location information to properly account for the facility.

Some States are currently reporting atypical sources to the NEI, but it is not clear that all such sources are being reported from all States. Some of these facilities have emissions that exceed the point source PTE CAP reporting thresholds, and with new HAP reporting thresholds that may be adopted based on this proposed action, additional portable facilities may need to be reported. A robust offshore source inventory of drill rigs is available for facilities operating in Federal waters under the jurisdiction of the Bureau of Ocean Energy Management, and the EPA is proposing in section IV.A.B of this preamble to collect data from facilities operating in Federal waters under EPA jurisdiction. These facilities, however, do not include facilities operating in State waters (*e.g.*, oil platforms, drilling engines on barges, construction activities, wind turbines). Emissions from these sources should be reported by States as point sources when such sources exceed the point source reporting thresholds. Finally, reporting emissions for portable facilities requires a specific treatment of county codes and location information, and the requirements for that type of reporting are not explained in the current AERR requirements.

Based on these considerations, the EPA proposes to clarify that both portable facilities and offshore facilities within State waters should be considered when States determine which sources should be reported to meet point source requirements of this proposed action. The EPA also proposes to add a definition of portable facility to mean “a facility that does not have a fixed location such as an asphalt plant or portable land or sea-based drilling rig.” In addition, this action proposes to include an explanation to use county code “777” to reflect the lack of county specificity when such sources are moved among counties over time. Facilities reported in this manner would still need to be reported for their emissions within a State. This proposal also includes an exception for the requirement of submitting facility air centroid coordinates or for release point coordinates for portable facilities.

The design of this proposed action leaves open the possibility that the owner/operator of a portable facility may need to report emissions when the annual emissions of the facility exceed any of the emission reporting thresholds used to define point sources. Two special cases for reporting could arise

from these scenarios. All cases that reference operations within States and Indian country include operations within any waters associated with those areas (*e.g.*, State waters).

First, the EPA proposes that portable facilities operating solely within Indian country where a tribe or State does not report CAP or HAP emissions data would be required to report emissions and to designate the tribe in which it operated using the EIS Tribal Code provided by EPA. In this case, owners/operators of a portable source would follow the same reporting requirements as for stationary facilities. For example, this proposed requirement would mean that owners/operators of portable sources would report CAP and HAP directly to EPA when neither a tribe nor a State reports that emissions data.

Second, the EPA proposes a requirement that portable facilities operating across State and/or Indian country boundaries would report directly to the EPA any emissions not reported by those States and/or tribes. Relevant CAP or HAP emissions would need to be reported by State and/or by tribe per other requirements of the rule. The EPA proposes that owners/operators could optionally include the specific time periods during which they operated in each region with their emissions reports. This case includes both tribes that do not report CAP or HAP and States that do not report HAP.

This “base alternative” approach as just described would not resolve the potential issue of portable facilities that remain in a single location for a period that could impact local air quality. It also does not resolve the temporal aspect of such emissions. The information currently available to the EPA is that examples of such sources are not widespread enough to warrant the additional complexity associated with reporting a portable facility’s emissions at multiple locations and/or multiple time periods. However, the EPA continues to seek information on the potential for portable facilities to adversely impact local air quality, what type of information would be useful to collect to better understand any air quality issues caused by such sources, and how the EPA could most effectively collect information from such sources.

The 2017 NEI includes emissions reported by States from more than 1,300 portable facilities such as asphalt plants. While most of these facilities are reported to emit actual emissions levels below the CAP PTE reporting threshold, some of these facilities included significant emissions for specific pollutants. For example, 41 portable facilities have between 20 and 177 tons

of NO_x, and 5 facilities have between 20 and 243 tons of VOC. Two portable facilities contributed more than the proposed emissions reporting threshold of Pb emissions (0.074 tons). While these amounts are small nationally, they could significantly impact the local air quality if the source was stationary for a significant period within a year.

Because the EPA recognizes that such portable sources, if stationary for long enough, could be an important local source, the EPA is proposing an option that may be included in the final rule, but is not currently included in the base alternative. The EPA is proposing that in addition to the base alternative, this "Portable Definition Option" would include a categorization of portable facilities to put them into two groups: (1) those that report as portable facilities as in the base alternative and (2) those that report as stationary sources. The EPA proposes that the two categories of portable facilities would have different reporting requirements as follows. Facilities would be defined as portable and required to report as portable sources only for periods when the source remains within a 1-km radius for fewer than 30 days. Facilities would be defined as stationary and be required to report as a stationary point source when the facility operates within a 1-km radius for 30 days or more. This Portable Definition Option would require the point source report to include the county identifier and coordinates of the centroid of its operations during each time period. The EPA would provide additional data formats that would support a requirement for States and owners/operators to provide portable facility locations for each 30-day (or more) period using the start and end dates of operation within a 1-km radius (*i.e.*, a single location could be provided associated with each 30-day period). The EPA urges commenters who have information about such portable sources to comment about the advisability of EPA's proposed requirements under the Portable Definition Option.

The EPA is also considering Alternative E1, that would replace the base alternative described above. Rather than require States to report portable sources as point sources, Alternative E1 would require States to report portable sources aggregated as county totals but include monthly emissions rather than annual emissions as in the base alternative. This alternative would allow States to track and aggregate all such portable facilities but report only by county and month. While the tracking of emissions from such sources would still be needed by States on a

facility-specific basis, this option reduces the reporting complexity for States. For Indian tribes, this option would work in conjunction with the additional proposed requirements described in section IV.L of this preamble to report emissions from their boundaries disaggregated by the portion of their lands overlapping each county. This alternative would not be available to owners/operators. If the EPA were to adopt Alternative E1 in any final action, the EPA proposes that owners/operators would still be required to report as described in the base alternative. The EPA urges commenters to provide their ideas on the advisability of this alternative.

F. Reporting Deadlines for Point Sources

In this proposed action, the EPA is proposing the dates by which point source requirements would be required to be met for States and owners/operators that are reporting emissions directly to EPA. We are also considering the interaction between the two types of deadlines. In this section, we discuss and propose State deadlines first followed by deadlines for owners/operators.

1. Deadlines for States for Point Sources

The current AERR requires States to report point sources by December 31 of the year after the inventory year. Thus, for the 2020 inventory year, the current State deadline is December 31, 2021. In the past, the EPA has used its enforcement discretion to allow States a 2-week grace period to complete their emissions because of the holiday season in which the current deadline occurs. In this action, the EPA proposes to include what is now an unofficial grace period in the current AERR deadline for the 2023 through 2026 inventory years by setting the deadline to January 15 that occurs 1 year and 15 days after the end of the inventory year. For example, the deadline would be January 15, 2025, for the 2023 emissions inventory year. The EPA also proposes a phase-in to earlier point source deadlines starting with the 2027 inventory year based on a variety of considerations described in this section.

While most States receive data from point sources between March and October, most States do not start submitting point source emissions for the previous year until December. As a result, any problems that the States encounter in reporting their emissions in December often cannot be resolved in time to meet the current AERR deadline. In more rare cases, States have changed their software for handling emissions data, and it is either not working

properly or not completed in time for States to meet regulatory deadlines.

During the time between when States collect point source emissions data and when it is submitted, the States' role is to perform QA on emissions data, resolve any quality issues by having owners/operators resubmit their emissions, format the data for submission to EPA, and complete the EPA submission while resolving any QA errors sent by EIS. States also assess fees on the owners/operators of point sources based on emissions levels. The EPA is not aware of all the challenges that States face to complete these tasks but is aware of some of them as described next.

States can have difficulty meeting any changes made to the EIS data elements or formatting requirements. For example, even with 18 months advanced notice, webinars, repeated reminders, and frequent newsletters that included information about changes to the EIS data format for controls, many States were left unaware of those changes as late as the fall of 2021 when the data were due in just a matter of weeks. The EPA recognizes that, even if States are working to ensure they meet any changes to the reporting approach, they may have limited time and resources to do so. States have also expressed concerns with their information technology departments when those departments are responsible for maintaining and revising State emissions reporting systems.

Despite the challenges meeting the existing deadline, the needs and expectations for faster data turnaround continue to grow. While the public has become accustomed to hourly updates on ambient air quality, the emissions data lags years behind. The EPA's uses of the NEI all benefit from more timely receipt of data because the EPA can then use it to inform regulatory and non-regulatory analysis and decisions. With the current AERR deadline, the States have 1 year to submit their point source data, which is two-thirds or more of the time between the end of the inventory year and the first NEI point source release. The EPA has reduced the time it takes after receiving the data to combine State data with other data sources, quality assure the data, and augment the data to fill gaps or exclude flagged data that have not been addressed by States. While EPA continues to streamline its point source data processing efforts, only so much more improvement can be expected when States take the majority of the overall time it takes to release the inventory. By considering earlier State reporting deadlines, the EPA hopes to

achieve further improvement in timeliness of the point source NEI.

Other EPA emissions inventory programs collect data directly from owners/operators, and their deadlines are earlier. For example, the TRI program collects data for a given reporting year from owners/operators by July 1 of the following year,⁴⁷ releases a preliminary dataset by the end of July, and publishes the National Analysis dataset a few months later, typically mid- to late-October. The data are published from TRI before the NEI data are even due to be submitted by States. Another example is the GHGRP, which collects data from owners/operators by the end of March and publishes its results by October or November.⁴⁸ While the States add value to the NEI reporting process by reviewing emissions data from point sources, the current approach requires more time than may be warranted.

The current timing of the NEI is unsatisfactory to EPA, some States, and the public. While everyone wants emissions data sooner, the collection, review, and publication of data for the NEI takes time, and resources are not always sufficient. Decisions and environmental improvements based on new information are delayed when the data take longer to produce.

The disadvantages of less timely data have been known for years; however, the EPA is aware that one of the root causes of the time constraints have been resource limitations for the States. Until recently, the EPA has not had a potential solution to aid States in meeting their reporting requirements. By using CAERS for collecting emissions data from owners/operators of point sources, States now have a new option to assist in gathering, reviewing, and submitting high quality emissions data more quickly.

State efforts to report for the NEI involve four primary steps for each inventory year: (1) configure a data reporting system; (2) support owners/operators using the reporting system, including training; (3) review data submitted by owners/operators for errors until owners/operators resolve them; and (4) format data from the State system and submit it to the EIS. CAERS can reduce burden for states because the EPA makes sure that it is maintained with the latest AERR reporting requirements, which greatly reduces the State burden for maintaining the emissions reporting system. Since

CAERS is integrated with the latest QA checks and uses the latest available emissions factors (including state-provided factors), States also can expect that data collected with CAERS is more likely to use the best available emissions estimation approaches. Finally, since CAERS converts and submits the data to the EIS, States can expect that the burden of that part of their role to be largely eliminated.

In addition to the benefits of the existing CAERS approach for States, the EPA intends to further integrate CAERS with the WebFIRE database to provide direct access for owners/operators to the latest emissions factors and emissions rates they have reported to CEDRI (this would not change the public availability of the data in WebFIRE). Because this proposed action would require owners/operators to report certain source tests, this future CAERS advancement will streamline the use of these data by owners/operators and States. Usually, these source test data provide a better estimate of emission rates from facilities than do average emissions factors more traditionally used by States in their data systems. As a result, CAERS provides States a mechanism for both improved timeliness and improved emissions data quality.

While the need for more timely data is clear, the challenges for States of any changes to an earlier deadline are significant. The EPA is considering that any proposed change in deadlines would need to be weighed against the time States would need to adapt to any new timing requirements as well as any other changes finalized based on this proposed action. While some States may have sufficient resources to continue to report data using their own data systems, they may need to change regulations and processes to adapt to an earlier deadline. The EPA has heard from States that it can take 2–3 years to change their emissions reporting regulations. Thus, States that must change those regulations to meet an earlier deadline would need time to do so.

Other States that choose CAERS to help augment their emissions data collection and reporting approach may also need to change their reporting requirements, and they would need sufficient time to migrate from current processes to a CAERS-based approach. Depending on a variety of factors, this process can take between 1 and 3 years.

Based on these considerations, the EPA proposes to add 15 more days to the point source reporting deadline through the 2026 inventory year. The deadlines for point source reporting for the 2023 through 2026 inventories

would be within 12 months and 15 days of the end of the inventory year (e.g., for the 2022 inventory year, by January 15, 2024). This deadline and others are summarized below in section IV.S of this preamble.

The EPA additionally proposes to establish point source reporting deadlines shorter than one year for inventory years 2027 and beyond. We propose to do this through a phase-in of earlier deadlines. With the preferred approach, the EPA proposes that for the 2027 through 2029 inventory years, States would report point source data to the EPA within 9 months of the end of the inventory year (e.g., for the 2027 inventory year, by September 30, 2028). Then, starting with the 2030 inventory year and for every inventory year thereafter, States would be required to report point source data to the EPA within 5 months of the end of the inventory year (e.g., for the 2030 inventory year, by May 31, 2031). The EPA is proposing to collect this data sooner than the current AERR requires because having more current data benefits EPA's work. Further, many States already have their data collected from owners/operators much earlier and submit it earlier than the current AERR deadlines. Other States can adjust to collect data earlier so they can report it earlier. CAERS could provide States an option for assistance with such an adjustment.

In addition to this preferred approach, the EPA seeks comment on alternatives for phase-in of these earlier dates more gradually.⁴⁹ Alternative F1 could provide for a slower phase-in of earlier point source reporting deadlines. The EPA is considering that the inventory year for the first deadline change could occur for inventory years 2028 or 2029. The EPA is considering that the second deadline change could occur for inventory years 2031 or 2032.

The EPA is also seeking comment on Alternative F2, which provides alternative reporting dates for the earlier deadlines. The EPA urges commenters to suggest alternative deadlines, provide rationale supporting those other deadlines, or provide support for the deadlines proposed. For the first deadline change (under the preferred approach, starting for the 2027 inventory), the EPA is considering alternatives of August 31 and October 31. For the second (and final) deadline change, the EPA is considering

⁴⁷ The TRI deadline is described in 40 CFR 372.30(d).

⁴⁸ The GHGRP deadlines are described in 40 CFR 98.2(i).

⁴⁹ Faster phase-in of earlier reporting dates is not under consideration due to EPA resource and other implementation aspects necessary to support states in joining CAERS.

alternatives of April 1, April 30, and June 30.

While the phase-in described in the preferred approach is the fastest approach under consideration, the EPA urges commenters to provide information and analysis if they believe such an approach may be too rapid, and which of the alternative phase-in dates would work better and why, or why the preferred approach is a good solution.

In addition to the preferred approach and the alternatives on which the EPA is specifically soliciting comment, the EPA will consider appropriate combinations of phase-in timing as well as alternative deadlines. The EPA urges commenters to suggest alternative combinations of phase-in schedules and new deadlines if they believe that some other combination is appropriate, provide information and rationale that supports other combinations, or provide support for the preferred alternative.

2. Annual Emissions Deadlines for Owners/Operators of Point Sources

As previously described in this preamble, the EPA is proposing annual emissions data reporting to the EPA from owners/operators of point sources, which can be either for HAP alone for facilities within States or both CAPs and HAP for facilities within Indian country and Federal waters. Additionally, owners/operators of point sources within Indian country may be required to report data for intermittent sources of electricity generation under certain circumstances. The EPA proposes deadlines for these requirements in this section.

To explore the options for reporting by owners/operators, the EPA is considering four factors: (1) the amount of time it takes to prepare reports, (2) the availability of EPA's CAERS reporting system for each annual reporting cycle, (3) other emissions reporting deadlines that owners/operators must meet, and (4) coordination with State deadlines. Consideration of these factors allows for a phase-in for owners/operators that synchronizes with any phase-in of earlier deadlines for States that may be finalized.

First, the information an owner/operator needs to report emissions is largely collected during the year of the emissions inventory. For example, owners/operators keep track of their facility production rates throughout the year, fuel usage, and other throughput and activity data used to estimate emissions from each unit and process. For sources with CEMS, throughputs and emissions are available within days. Source tests performed during the year

that would be required to be used under this action can be completed and reported to the EPA within 60 days. Emissions factors needed by sources are available on a continuous basis through AP-42 and WebFIRE, through CAERS, or via a State reporting system. For these reasons, the EPA expects that the data needed for owners/operators to report emissions to the EPA would be available at most within 60 days after the end of the inventory year.

Second, the EPA has only been using CAERS for three emissions inventory years. For each of these, the EPA has successfully met objectives for including the States and associated owners/operators expected for each reporting year. While this proposed action, if finalized, is likely to greatly expand the adoption and use of CAERS, the EPA expects that it can continue the success of past experiences for future inventory cycles. The release date for CAERS for each inventory year is expected to be between February 1 and February 28 of the year after the inventory year.⁵⁰ Thus, any deadlines that the EPA would consider should need to leave sufficient time between the CAERS release date and any due dates to accommodate owners/operators who report directly to the EPA under any final action taken on this proposal.

Third, other EPA reporting program deadlines are also important to consider from the perspective of owners/operators. For the GHGRP, reports are due by March 31 of each year and for the TRI, reports are due by July 1 of each year. The EPA understands that different owners/operators could have different needs associated with any proposed timing requirements in this action. Some owners/operators may appreciate keeping the deadlines incremental, so that each requirement could be met in turn. This approach would allow industry staff to inform decision makers and report certifiers of the reports before they are sent. Other owners/operators could prefer the idea of consolidating reporting to multiple systems through CAERS, as well as consolidating deadlines.

Finally, the EPA is also considering the relationship of the data being collected by each of the programs. The NEI program to relies on GHG emissions from the GHGRP where such reporting is required. This action does not propose allowing for owners/operators to voluntarily report GHGs to the NEI program (though States could continue to report them voluntarily). Therefore, the data connection between the GHGRP

and the NEI is limited to the facility characteristics as well as the activity, such as fuel consumed, that may be used to estimate emissions both of GHGs and of pollutants required under any final version of this proposed action.

The NEI program and the TRI program both collect emissions from each program's unique list of chemicals. As previously described, to meet programmatic needs, this action proposes to collect HAP emissions for individual units, processes, and release points within facilities. This proposed requirement is analogous to the current voluntary HAP reporting by States for NEI. For reporting by owners/operators, the HAP emissions estimated at the more detailed resolution for NEI could inform the air emissions portion of the TRI reporting requirement. In fact, the CAERS approach has recognized this potential connection between NEI and TRI for HAP; therefore, the EPA designed TRI-MEweb to access the emissions sums reported to CAERS for stack emissions and fugitive emissions when preparing a TRI reporting. This connection suggests that it may be beneficial to have an AERR deadline for owners/operators be prior to the TRI reporting deadline.

In addition to the other emissions reporting requirements, the EPA recognizes potential benefits of coordinating reporting deadlines for owners/operators with the proposed State reporting deadlines previously described. This coordination is particularly relevant considering that some States may choose to report HAP on behalf of owners/operators. The available options are for owners/operators to report before States submit data, at the same time, or after States' submissions. To address this issue, we explore a complex but streamlined example envisioned by this proposed action, whereby a State chooses to reduce its overall burden by participating in CAERS for CAPs but not adopt HAP reporting. In this case, owners/operators in that State would use CAERS to report HAP emissions directly to the EPA and report CAPs to the State. We expect that owners/operators would prefer to submit all their emissions together, rather than have different deadlines for different pollutants. With this example, the State would then need time to quality assure the CAP emissions and resolve any concerns with owners/operators. For this example to work, the owners'/operators' deadline would necessarily need to precede the State deadline so that the State would have sufficient time to perform its review prior to passing

⁵⁰ For the 2022 inventory year, the EPA released CAERS for reporting on February 6, 2023.

the data along to EPA. While other examples exist, the EPA has been unable to find another approach that addresses the needs for the implementation options included in this proposed action.

As previously described, this action also proposes a phase-in of earlier deadlines for States. As a result, deadlines for owners/operators would need to be adjusted in accordance with any changes to State deadlines.

Based on these considerations, the EPA is proposing a requirement in which reporting from owners/operations would gradually increase. The EPA would allow reporting to be optional in the first year and then mandatory after that, as follows: Starting in the 2024 emission inventory year, owners/operators of facilities could optionally submit annual emissions data and any required daily fuel consumption for specific units by May 31, 2025. This would allow those owners/operators to report data directly to the EPA for any reason. The EPA additionally proposes that for the 2025 inventory year, any owner/operator of a point source that is located outside the geographic scope of the State’s implementation planning authority would be required to report annual emissions data and any required daily fuel consumption for small generating units by May 31, 2026. Other owners/operators could continue voluntary reporting for the 2025 inventory year and then be subject to mandatory reporting for the 2026 inventory year. This would allow for a gradual increase in owner/operator reporting to ensure the CAERS system can best support owners/operators through the process. This approach would also allow the EPA to obtain data from sources within Indian country

sooner than it otherwise would to fill a current gap in EPA’s understanding of emissions.

For the 2026 emissions inventory year, this action proposes that all owners/operators subject to reporting for point sources would complete submission of annual emissions and any required daily fuel consumption for specific units to the EPA by May 31, 2027. This requirement would apply both to point sources within Indian country as well as point sources within States that have not been approved for submission on behalf of owners/operators. Owners/operators within States that have been approved to report HAP on their behalf would not be subject to this proposed deadline (but rather to whatever deadline is imposed by the State).

The proposed May 31 deadline is earlier than the TRI reporting deadline to address the relationship that exists between this proposed action and existing TRI requirements. The EPA is considering that an earlier date may not allow sufficient time for owners/operators to transition to submitting reports directly to the EPA for some or all their pollutants. In addition, for States that want to align their requirements with this date to provide owners/operators reporting CAPs to the State, the May 31 date provides States 7 months and 15 days to complete their tasks and meet the January 15 reporting deadline proposed for States for the 2024 and 2025 inventory years.

Starting with the 2027 emissions inventory year and every year thereafter, this action proposes that owners/operators of point sources would complete submission of annual emissions and any required daily fuel consumption for specific units by March 31 of the year following the inventory

year. The first date for meeting this requirement would be March 31, 2031, for the 2030 inventory year. This earlier date aligns with the second State earlier date phase-in to the proposed State reporting requirements of May 31, 2031.

The EPA is aware that some industries may, due to workload concerns, have an interest in not aligning the proposed reporting deadline from facilities with the GHGRP deadline of March 31. Though the proposed approach described above would change the deadline for owners/operators from May 31 to March 31, the EPA continues to evaluate this proposed approach, and is requesting comment and additional information on the expected impacts of that proposed deadline. The EPA would also consider a later deadline for owners/operators that would be either April 15, April 30, or May 15 of the reporting year. The EPA urges commenters to describe additional considerations about which the EPA may not be aware of to advise on a reporting deadline for the final rule.

3. Summary of Reporting Deadlines and Phase-In Years

Table 3 below provides a summary of the proposed point source reporting deadlines for annual emissions of the preferred approaches proposed in sections IV.F.1 and IV.F.2 of this preamble. These deadlines would not apply to the collection of source test data. This proposed phase-in approach is dependent on an assumed final promulgation date prior to June 2024. If a final version of this subpart were delayed beyond June 2024 or if comments on this proposal lead to an approach for a final rule, the EPA may delay the phase-in of earlier deadlines.

TABLE 3—SUMMARY OF PROPOSED POINT SOURCE REPORTING DEADLINES FOR ANNUAL EMISSIONS DATA

| Phase | Deadline in months after end of inventory year for reporting to the EPA | |
|----------------------------------|---|-----------------------------------|
| | States | Owners/operators |
| Phase 1: 2022 through 2024 | 12 months and 15 days | n/a. |
| Phase 1: 2025 ..... | ..... | 5 months (within Indian country). |
| Phase 1: 2026 ..... | ..... | 5 months (all facilities). |
| Phase 2: 2027 through 2029 | 9 months | 5 months. |
| Phase 3: 2030 and beyond | 5 months | 3 months. |

G. Point Source Reporting Frequency

EPA is considering the frequency of point source reporting and is proposing that point source reporting be done for the same sources every year beginning with the 2026 inventory year. This proposed approach would eliminate the reduced reporting requirements on

interim (non-triennial) years for point sources and would not affect the frequency of reporting nonpoint or mobile sources.

By way of background, the current AERR requires point source reports from States for two categories of point sources: Type A and Type B (Table 1A to Appendix A of this subpart). States

must report every year for Type A sources (which are point sources that exceed PTE reporting thresholds of 250 tpy for most CAP and 2,500 tons for CO, NO_x, and SO₂). No annual (*i.e.*, only triennial) reporting threshold exists specifically for Pb, but Pb emissions are required to be reported annually when a source meets the PTE reporting

threshold for other pollutants above the Type A reporting thresholds. States must report every third year for Type B sources, which have lower reporting thresholds than the Type A sources. For parts of a State in attainment for a relevant NAAQS, the criteria pollutant and precursor PTE reporting thresholds for Type B sources are 100 tpy. For CO, the PTE reporting threshold for Type B sources is 1000 tons/year, and the Pb actual emissions reporting threshold is 0.5 tons. For nonattainment areas with a Serious designation or above, lower reporting thresholds for Type B sources exist for some pollutants, depending on the NAAQS for which an area is in nonattainment. As explained more below, the EPA is now proposing to do away with our approach to distinguish between Type A and Type B sources.

The current triennial approach, which was designed in part to reduce burden on States, stems from the CAA section 182(a)(3) requirement for ozone for which States must submit a revised inventory no later than the end of each 3-year period after submission of their SIP base year inventory required for Marginal nonattainment areas and above. The EPA has continued this 3-year approach despite the expansion of the NEI to include PM and optionally HAP and GHGs.

The EPA has found that the inventory for each year is important and useful to contribute to a variety of activities the EPA performs under the CAA. Having more information every third year and less information for other years has made it difficult for the EPA to effectively utilize the NEI data for certain purposes such as evaluating emissions trends, regulatory modeling, and non-regulatory modeling including national efforts to estimate risks from HAP. As described in sections IV.A.1 through IV.A.3 of this preamble, current HAP data needs to be readily available for having accurate information to support technology reviews and filling gaps in the MACT standards as per the LEAN decision previously described. Additionally, EPA's AirToxScreen will have access to more complete and current data to inform the public, support prioritization of compliance activities, and to inform understanding of risks faced by disadvantaged communities in support of various environmental justice priorities.

The EPA has also experienced challenges with the current approach of more limited point source data on non-triennial years. For example, the Great Recession occurred between December 2007 and June 2009. Real gross domestic product did not regain its pre-crisis peak level until the third quarter of

2011. Thus, the bulk of the impact on industrial sources and reductions in their emissions occurred during 2009 and 2010, two years when the NEI collected only the Type A data. Thus, the point source emissions inventory for those years did not reflect the full extent of the impacts on emissions of the Great Recession.

Similarly, impacts from the COVID pandemic started in 2020 (a triennial inventory year in which we collected data from both Type A and Type B sources) and has continued into 2022. The pandemic has caused both activity decreases and facility closures for some industries as well as increases in activity for other industries. Other impacts to emissions-related activities caused by supply chain problems and price changes to fuels that may also have impacted emissions. The EPA anticipates that any potential impacts of the pandemic and industrial recovery on emissions could only be partially captured under the current AERR relying on Type A sources for non-triennial years.

Because of greater data limitations for non-triennial years, the EPA has traditionally tried to rely on the triennial NEI for regulatory modeling of criteria pollutants, for example, for ozone transport analysis or an RIA for a new NAAQS. However, using a triennial NEI has not always been possible, because a modeling year is selected not only based on the emissions inventory, but also on the meteorological conditions that, in some years, lead to the formation of more ozone and more exceedances of the ozone NAAQS. When the EPA updates a NAAQS or transport rule and needs to perform an RIA and when States need to develop SIPs, it is important to use a modeling year that exemplifies the problem to be solved (e.g., a modeling year that models ambient air above the level of the NAAQS). This year is not always a triennial NEI year because of meteorological conditions and/or overly active fire seasons. In fact, EPA's most recent regulatory modeling platform was developed for 2016, which is not a triennial NEI year. A large amount of additional coordination with the States and multijurisdictional organizations was needed to refine the 2016 emissions to reflect 2016 for Type B sources that had not been reported to the NEI.

For regulatory analysis of HAP in support of future technology reviews under CAA 112(d)(6) and discretionary risk review, the EPA needs the most currently available data. For these reviews, the data need includes not only the actual emissions, but also the control technologies and other changes

made to industrial facilities and their associated emissions rates for HAP. This is particularly important for the Technology Reviews for which the EPA is responsible for conducting periodically for each industry and in which the EPA considers developments in practices, processes, and control technologies. The emissions inventory data form the baseline emissions for Technology Reviews, which are a key component of EPA's analyses of potential control options, emissions reductions, and cost-effectiveness. The latest data about the controls and technologies at the facilities, provided by an emissions inventory, allow EPA to create a more effective and credible review. About 25 sectors per year need to undergo Technology Reviews each year, to meet the review schedule of every 8 years. If a HAP reporting requirement is finalized, continuing with a triennial approach would mean that the EPA would not always have the most up-to-date information for the Technology Reviews. Current limitations have required the EPA to conduct one-time efforts for providing additional data that could have already been available via a standardized NEI process.

Annual HAP reporting will provide other benefits in addition to those discussed above. For example, the EPA has recently committed to providing annual updates of its air toxics data. The annual AirToxScreen will provide updated emissions and risk information, to both document the ongoing risks posed by some facilities and to provide communities with the information they need to understand those risks. The EPA intends to produce these updates annually to take advantage of the best available data and to help inform emissions trends, ideally to show progress in reducing risks to communities. Therefore, a triennial approach to collecting point source data would reduce the effectiveness of these efforts because all sources would not be updated on the same timescale.

Not only does the EPA have an interest in having the most current information, but 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.

Finally, as the EPA strives to best serve the public, EPA's ability to receive updated and timely emissions data provides a foundational piece of information needed to support many aspects of EPA's mission. This need is already illustrated by other EPA emissions data collections such as TRI, the GHGRP, and the Air Markets Program, which all collect data annually using consistent criteria each year.

As described, the EPA has identified several limitations with the existing approach for which we receive more limited data 2 out of every 3 years. It is important to resolve those limitations as quickly as possible to limit future impacts. The primary reasons for the triennial approach were (1) the original CAA basis of the rule as previously described, (2) the burden on States, and (3) the burden on the EPA to create an NEI every year. Each of these reasons has less weight now than it had for previous AERR revisions, as described in the following paragraphs. At the time these decisions were made, the burden on owners/operators was not considered; however, we are considering these burdens now. Even with these additional burdens on owners/operators considered, the EPA expects the benefits of the data collection to be justified.

Regarding the original CAA basis for ozone and triennial periodic inventories, the EPA notes that inventories *at least* every three years are necessary to administer the ozone nonattainment area RFP provisions of section 182 (*i.e.*, rate-of-progress, RFP, and milestone compliance demonstration provisions). The EPA

also notes that the timing of ozone NAAQS nonattainment designations, which has implications for the inventory year that a State may select for their baseline inventory for the nonattainment area, does not necessarily align with the triennial inventory years established in the AERR. Thus, the EPA has allowed States to select the initial baseline inventory year (which serves as the RFP baseline year) using either the most recent triennial year or the year of the effective date of designation for that NAAQS. While there may be valid planning reasons for States to choose a non-triennial year, the practical ability for States to do this can be constrained by the availability of adequate inventories during non-triennial years. Moreover, with respect to the attainment demonstration obligation, modeled attainment demonstrations for ozone and PM may require base years other than triennial years to reflect meteorological conditions conducive to the nonattainment problems faced by a State. Thus, even though the Act requires a minimum triennial inventory approach for ozone nonattainment areas, experience suggests that having annually updated inventories provides benefits for criteria pollutant implementation in addition to the other benefits that will occur. Importantly, nothing in section 182 prohibits the EPA from requiring updated inventories on a more frequent basis.⁵¹

Since the 2008 promulgation of the AERR, technology for data collection and compilation has advanced significantly. Starting with the 2008 inventory year, the EPA provided the EIS to collect data electronically from States, and many States have developed their own electronic reporting approaches. The EPA has further refined and improved the EIS over time to provide additional QA, quality control (QC), and summary information features for State and the EPA inventory developers to help streamline the process and ultimately reduce burden for both States and EPA's NEI program. In addition, the EPA developed and released the CAERS application in 2019, which can support States that wish to have a more modern and robust emissions reporting system that meets AERR requirements. While the step of transferring State's emissions collection and reporting systems to CAERS has an

initial up-front (though voluntary) burden, the longer-term information technology, and programmatic efficiencies of sharing a reporting system with the EPA and other States would be significant.

Although the motivations and new developments described above build a strong case for collecting the same point source data every year, the EPA is considering some additional information in evaluating the advisability of such an approach. This additional information includes what States have been reporting for non-triennial years voluntarily and the experiences of States that are already using CAERS for emissions reporting.

The EPA recognizes that States have reported voluntarily more sources than required on non-triennial years. For the 2019 inventory year, for which States were required to submit only Type A sources, 34 out of 82 State, local, and tribal agencies submitted roughly the same number of point sources as they submitted for the 2017 triennial year. This means that these States voluntarily submitted their triennially required sources instead of the fewer sources required. Some differences between years are to be expected because facilities open and close. These submissions represented about 11,000 facilities out of about 54,000 facilities submitted by agencies for either year, when considering those facilities that reported NO_x, SO₂, or VOC. Thus, because these 11,000 facilities represent about 20% of the 54,000 total facilities, we estimate that the incremental actual burden associated with requiring the same sources every year is about 20 percent lower calculated on a per-facility basis than it would be if these agencies were not already sending in such data. These States would meet an annual point source requirement without additional effort or burden (if the frequency change were the only change).

To build on the 2017 and 2019 analysis, we compared emissions between 2017 and 2019 for those sources with 2017 emissions less than Type A reporting thresholds and which had emissions in both 2017 and 2019. Sources that were not reported in both years were dropped. For NO_x the median emissions increase or decrease between 2017 and 2019 was less than 5 tons, which given the 100 tpy PTE reporting threshold is a small difference. This suggests that many sources do not change much from one year to the next. However, the NO_x changes for any one facility ranged from an 1,800-ton decrease to a 2,800-ton increase. In all, 672 facilities had emissions of 100 tons

⁵¹ See CAA section 182(a)(3)(A), which states that “No later than the end of each 3-year period after submission of the inventory under paragraph (1) until the area is redesignated to attainment, the State shall submit a revised inventory meeting the requirements of subsection (a)(1) of this section” (emphasis added).

or more in 2017 and more than a 25 percent increase or decrease in emissions in 2019. Similarly, for SO₂, the median change between 2017 and 2019 was less than 1 ton, and the range of changes were a 1,900 ton decrease and a 4,600-ton increase. There were 347 facilities with emissions of 100 tons or more in 2017 and more than a 25 percent increase or decrease in emissions in 2019. For some of the uses of the NEI by the EPA and certainly for SIP inventories, the magnitude of these changes can be impactful in local areas. Thus, the EPA observes that including year-specific inventory data is important to promoting the quality and use of the NEI for the purposes laid out in sections IV.A.1 through IV.A.3 of this preamble and in this section.

In discussions with States as part of the routine interactions associated with creating the NEI and as part of ongoing outreach for CAERS, State emissions inventory staff have volunteered the information to the EPA staff that they collect these point sources because of State regulations, and it is less work for them to report all the point sources every year rather than taking extra steps to limit what is reported in the non-triennial years. This response speaks to the benefit (for the vast majority of States with annual reporting regulations that include additional sources beyond those required by the AERR) of streamlining, automating, and taking the same approach each year.

The EPA also is considering the experiences of States that are already using CAERS for emissions reporting. Transitioning to CAERS for these States has had its own one-time challenges, in part because the system is new. Other than those initial challenges, however, the States' experience using CAERS for the 2018 through 2020 inventory years has been that their work is primarily focused on supporting facilities and quality assuring data, rather than setting up their data system or formatting data from the State system and submitting it to the EIS.⁵² Since CAERS includes the QA checks in EIS for owners/operators to get feedback and make corrections while reporting, once the data has been accepted by CAERS, it largely can flow to the EIS without much effort for States.

Based on these considerations, the EPA proposes to change the reporting thresholds so that they are the same for all years (EPA will no longer distinguish

between Type A and Type B sources). Further, the EPA proposes implementation of this requirement to take effect the first non-triennial year after promulgation of the final rulemaking (expected to be 2027).

The EPA is also considering whether the 2027 inventory year is too soon for some States to implement changes that would enable them to collect data from all point sources that otherwise would not be reported until the 2029 inventory year. Thus, the EPA is considering Alternative G2 to use the 2028 inventory year as the first year for implementation of the same reporting thresholds every year. The EPA is interested in comments about the feasibility of the base alternative of a 2027 inventory year requirement (data would be due by September 30, 2028, under the preferred phase-in alternative described in section IV.F.1 of this preamble) when compared to Alternative G2 that would use a 2028 inventory year requirement (data would be due by September 30, 2029, under the preferred phase-in alternative).

Irrespective of the implementation challenges for States, the EPA is proposing that owners/operators within States not reporting on their behalf would report annual emissions data for the same sources every year beginning with the 2026 inventory year. As previously described, the EPA is proposing that owners/operators operating facilities within Indian country and Federal waters would report annual emissions data for all applicable sources beginning with the 2025 inventory year. The requirement for annual reporting by owners/operators is based on the importance of year-specific data for many sources and EPA's ability to implement CAERS for many new reporters. Nevertheless, the EPA is interested in comments providing information and analysis about the feasibility for sources to report directly to the EPA voluntarily for the 2024 inventory year in two cases: (1) facilities that are within the geographic scope of a State's implementation planning authority and (2) all other facilities. In the first case, if there would be unforeseen challenges for States or owners/operators in the case where owners/operators are reporting HAP when the State is reporting CAPs, it would be helpful for commenters to provide information on any such challenges so the EPA can better evaluate the options it is considering in this rulemaking.

A provision of the current AERR in 40 CFR 51.35 provides States the opportunity to submit Type B point sources over a 3-year period to spread

out their emissions inventory work rather than have a reporting burden spike in the triennial years. For point sources, this existing provision at § 51.35(a)(2) says that States may "collect data for one-third of your sources that are not Type A point sources." That provision continues by including "Collect data for a different third of these sources each year so that data has been collected for all of the sources that are not Type A point sources by the end of each 3-year cycle. You must save 3 years of data and then report all emissions from the sources that are not Type A point sources on the triennial inventory due date." The advantage of this provision is that States can balance state workload. With the annual reporting for all sources proposed in this action, the EPA is additionally proposing to remove the provisions of 40 CFR 51.35 in the current AERR.

H. Clarification About Confidential Treatment of Data

The existing requirements in the AERR include a statement about confidential data at 40 CFR 50.15(d), which states "[w]e do not consider the data in Tables 2a and 2b in Appendix A of this subpart confidential, but some States limit release of these types of data. Any data that you submit to the EPA under this subpart will be considered in the public domain and cannot be treated as confidential. If Federal and State requirements are inconsistent, consult your EPA Regional Office for a final reconciliation." This section of the current AERR was intended to clarify that the data required to be reported to the EPA under the AERR would not be treated as confidential by EPA.

The context of this discussion and clarification on confidential data and the NEI relates to EPA's intent to continue its current practice of releasing point source emissions data on a regular basis. Point source emissions data collected by the Agency will be available to States and EPA staff via the EIS within months of its receipt. The EPA expects to make such data publicly available via EPA's website within the year after receipt. While some data fields may not currently be published on EPA's website, the EPA provides that data upon request. The EPA may change the composition of the data published, timing, or method of any release of collected information without further notice.

Since the provision in § 50.15(d) of the current AERR was promulgated, it has led to some confusion that the EPA is now seeking to clarify with revisions.

⁵² See "Georgia Partners with the EPA to Pilot Combined Air Emissions Reporting System" and "From CHAOS to CAERS: Improving Inventory Reporting Workflows in the District of Columbia," which are both available in the docket for this proposal.

For example, the EPA has received claims by States that, under the current AERR, they do not need to report some data to the EPA because the State considers that data entitled to confidential treatment. One local air agency claimed that it could not report SCCs that describe the emissions process to the EPA under the requirements of the AERR because it claimed that information was confidential under State law. Other agencies do not report the throughput data from their sources, despite it being a required field currently in the AERR. The EPA's understanding of the reasons for withholding such required data is that States consider the throughput data to be confidential so the local agencies cannot report it. The EPA recognizes that the existing wording of § 50.15(d) could be confusing and could contribute to the lack of reporting for certain data elements. Nevertheless, the existing language of § 50.15(d) was not intended to allow States not to submit certain data or to claim required data as entitled to confidential treatment from EPA.

To address this confusion and to articulate more clearly EPA's position on confidentiality for all information States and owners/operators are required to report under the AERR, the EPA proposes to add language to clarify the classification of data collected under this action. In addition, the EPA is proposing changes to clarify that those parties required to report under this subpart cannot decline to report certain data elements based on a claim that the data is entitled to confidential treatment. Specifically, the EPA proposes to add the determination that all data that parties are required to report under the revised AERR, including the data from the additional categories associated with emissions testing, is "emissions data" as defined at 40 CFR 2.301(a)(2)(i). As emissions data, the reported information is not subject to confidential treatment in accordance with CAA section 114(c), which provides for the public disclosure of such information. This proposed revision is intended to clarify that the EPA will not treat any data reported to the EPA under this rule (including the HAP data) as confidential in accordance with CAA requirements for emissions data and that entities who are responsible for reporting cannot withhold information based on claims of confidentiality.

The EPA also proposes to amend 40 CFR 2.301 to clarify that information the EPA collects through the AERR is emission data that is not subject to confidential treatment. Within that subpart, § 2.301 includes regulations

governing certain information obtained under the CAA. Section 2.301(a)(2)(i) defines the term emission data "with reference to any source of emission of any substance to air" to mean under paragraph (A) "information necessary to determine the identity, amount, and frequency, concentration, or other characteristics (to the extent related to air quality) of any emission which has been emitted by the source (or of any pollutant resulting from any emission by the source), or any combination of the foregoing." In addition, the definition is further established by § 2.301(a)(2)(i)(B) to include "[i]nformation necessary to determine the identity, amount, frequency, concentration, or other characteristics (to the extent related to air quality) of the emissions which, under an applicable standard or limitation, the source was authorized to emit (including, to the extent necessary for such purposes, a description of the manner or rate of operation of the source)." Lastly, § 2.301(a)(2)(i)(C) further defines emission data to include "[a] general description of the location and/or nature of the source to the extent necessary to identify the source and to distinguish it from other sources (including, to the extent necessary for such purposes, a description of the device, installation, or operation constituting the source)."

Also codified in § 2.301(a)(2)(ii) are certain exceptions to the general rule of paragraph (i) described above. This paragraph elaborates that certain information "shall be considered to be emission data only to the extent necessary to allow the EPA to disclose publicly that a source is (or is not) in compliance with an applicable standard or limitation, or to allow the EPA to demonstrate the feasibility, practicability, or attainability (or lack thereof) of an existing or proposed standard or limitation." If these conditions do not apply, then § 2.301(a)(2)(ii)(A) excludes from the definition of "emission data" any "information concerning research, or the results of research, on any project, method, device or installation (or any component thereof) which was produced, developed, installed, and used only for research purposes." Similarly, § 2.301(a)(2)(ii)(B) excludes "[i]nformation concerning any product, method, device, or installation (or any component thereof) designed and intended to be marketed or used commercially but not yet so marketed or used."

With this action, the EPA is proposing to determine that all data that would be required to be reported or optionally

reported under the proposed AERR revisions are emission data as defined by 40 CFR 2.301. To support this proposed determination, the EPA has created a list of the optional and required point source data elements for annual emissions data and has identified the part of 40 CFR 2.301 that applies to each element. The spreadsheet "AERR point source data elements.xlsx" provides this information and is available in the docket. Point source data elements are particularly relevant to considerations of confidentiality since individual point sources are owned by business interests and the data that the EPA collects is highly detailed. Point source data are also the type of information that has been claimed as confidential in the past.

In addition to the list of point source data elements described above, source test data collection included in section IV.C of this preamble describes collection of source test data. The EPA proposes that all required data elements for the ERT and such additional data that owners/operators would need to include when reporting source test data under this proposed action classify as emissions data. For example, this action proposes to require load, process operation, and parameter data, and all of these are necessary to develop emissions factors. The EPA identifies these data elements as meeting the definition of emissions data because they are, as per from 40 CFR 2.301(a)(2)(i)(B), "other characteristics" needed to provide "a description of the manner or rate of operation of the source" that the EPA needs "to determine the identity, amount, frequency, concentration, or other characteristics (to the extent related to air quality) of the emissions."

For States, the emissions reporting requirement for annual total emissions extends to all the types of sources listed under § 51.15 of the proposed regulatory text. The data that would be required under the proposed § 51.15 includes totals of pollutants, activity creating the emissions, characteristics of the sources, and in some cases model input and documentation. States would be required to report for point sources, aircraft and GSE, rail yards, nonpoint sources, onroad mobile, nonroad mobile, and prescribed fires. States would be able to optionally report wildfire and agricultural fire data. The EPA is proposing to determine that all the required and optional data fields, including those listed above, to be reported by States for all these sources meet the definition of emissions data and, therefore, are not subject to confidential treatment under the CAA.

Moreover, States would optionally be able to report wildfires and agricultural fires.

For example, the type of pollutants, magnitude of those pollutants, and emission rates of a source all meet the definition of emission data under paragraph 40 CFR 2.301(a)(2)(i)(A) as “information necessary to determine the . . . amount, . . . concentration, or other characteristics (to the extent related to air quality) of any emission which has been emitted by the source.” In addition, data elements that identify the source of any such emissions, such as the location, name, industry codes, units, processes, release points, controls, and all their characteristics all serve as “information necessary to determine the identity” of such emission data as per the § 2.301(a)(2)(i)(A) definition. Many required data elements meet the definition of § 2.301(a)(2)(i)(C) in that they “identify the source and distinguish it from other sources (including, to the extent necessary for such purposes a description of the device, installation, or operation constituting the source).” Examples of data elements that meet this definition in paragraph (C) include any data elements related to (1) installation dates of units, processes, and controls; (2) effective dates of use for units, processes, release points, and controls; and (3) the throughput of each emission process for both annual reporting and source test data reports. Many of the data elements about source characteristics that meet the definition under § 2.301(a)(2)(i)(A) also meet the definition provided under § 2.301(a)(2)(i)(C).

This action proposes various requirements that relate to what information is entitled to confidential treatment. First, this proposal includes requirements through listing of data elements. Data elements for annual reporting of point sources are listed in Tables 2a and 2b to Appendix A of Subpart A to Part 51. The source test reporting that the EPA proposes in section IV.C of this preamble requires use of the ERT; therefore, this proposal contains those elements required to use ERT, and additionally requires four data elements that would otherwise be optional if we had relied only on the mandatory reporting requirements of the ERT.

The proposed determination that all data required to be reported by the AERR are “emissions data” serves two purposes: (1) to re-state and clarify EPA’s position on the data that the current AERR is collecting and would continue under any final action, and (2)

to apply to the newly added data fields the EPA is proposing to require (as per section IV.I of this preamble). Therefore, this proposed confidentiality determination is intended to apply to both the current AERR and the proposed AERR revisions.

There are some required data elements included in the proposed requirement to use electronic reporting via the EIS, CAERS, and CEDRI that do not meet the definition of emission data. These are data elements that identify the individuals responsible for submitting such data and their contact information. While this submitter information does not meet the definition of emission data, the Agency is making a final determination through this rulemaking that this contact information does not meet the standard for confidential treatment under 5 U.S.C. 552(b)(4) and upon finalization of this rule, may be released to the public without further notice to the submitter. These data elements do not meet the definition of emission data, but also do not meet the definition of information needing confidential treatment.

Based on these considerations, the EPA proposes to determine that all data elements collected by the AERR are emissions data not entitled to confidential treatment, and thus that the EPA may release this information to the public without further notice to the submitter upon finalization of this rule. To implement this determination, the EPA proposes to add paragraph (k) to apply to data required to be submitted under 40 CFR 2.301.

I. Additional Point Source Reporting Revisions

The EPA has identified new requirements for point sources, new voluntary data elements, and various clarifications. New requirements include both the formalization of special cases that have previously been handled voluntarily and completely new required data elements. Clarifications include those for existing requirements that will newly be enforced by EPA data systems as well as clarifications for how to report certain data.

1. Formalizing the Approach for Aircraft and Ground Support Equipment

Over the past four or more triennial inventory years, the EPA has developed a comprehensive inventory of all airports to support analyses that may result in new regulations affecting emissions sources at airports, including aircraft and GSE. These sources can additionally be sources of HAP and impact communities, especially when the boundaries of airports are close to

housing, schools, and workplaces. Most airports do not meet the emissions reporting thresholds for CAPs that are in effect through this subpart, and many will not meet the reporting thresholds for HAP proposed by this action. When stationary sources at airports meet point source reporting thresholds, States currently report emissions of stationary sources at airports (e.g., boilers) as stationary point sources, and this approach is unchanged by this proposed action. However, other approaches are necessary for aircraft and GSE to ensure a complete airport inventory.

To date, the EPA has worked with States during previous triennial emission inventory years through voluntary review of LTO data for all airports. In past triennial inventory years, the EPA compiled and distributed the LTO data for voluntary State review and accepted comments and revisions to that data from States. The EPA estimated emissions using the final LTO data as input to the Federal Aviation Administration (FAA) Aviation Environmental Design Tool (AEDT).⁵³ This model includes emissions from aircraft up to 3,000 feet from the surface, and past guidance to States on airport emissions was to use that same elevation as part of the “point source” emissions. The resulting emissions data from aircraft and ground support equipment using these methods provide a fallback estimate of emissions from these sources at airports not reported by States.

In assessing States’ compliance with the provisions of the current AERR, the EPA has previously accepted the States’ provision of LTO data as being sufficient to meet the point source requirements for those airports that exceed the point source reporting thresholds. This approach both reduces burden for States as well as provides the EPA relevant information for use of the AEDT to estimate emissions. When the NEI includes EPA-created emissions, the EPA and the public have full transparency about how the data have been created including QA steps. The approach also creates a consistent dataset for all airports to use in QA of state-provided annual total emissions submitted, and it allows the EPA to use the latest available AEDT version. This last advantage allows the EPA to use AEDT updates that may be released by the FAA after the State point source reporting deadline.

Collection of LTO data provides the most advantage when used consistently across all airports. While airport

⁵³ Aviation Environmental Design Tool website, <https://aedt.faa.gov/>.

emissions data provided by States is also useful, when LTO data are not also provided, the EPA then lacks a consistent basis for comparing the AEDT results it creates with the state-reported emissions. Furthermore, without documentation provided about state-reported emissions, the EPA does currently require the method by which the State estimated emissions or performed QA, unless the EPA and the State incur the further burden of follow-up outside the existing electronic reporting process. The EPA has observed that implementing follow-up steps for clarification is less efficient than using a process by which the information is required from the outset.

Given these considerations, the EPA is proposing distinct requirements for reporting of aircraft and GSE data by States, which differ from the more general point source requirements. This action proposes in 40 CFR 51.15(b) to add two options for States to report data for airports in triennial years: either (1) submit LTO activity data for some or all airports within the geographic scope of the State's implementation planning authority using formats provided by the EPA and/or (2) review LTO data and annual emission totals provided by the EPA, send comments on that data, and notify the EPA that the State accepts that data. Under this proposed addition, States can choose one of these two options for each airport for which they would be required to report. The EPA additionally proposes that the deadline for reporting activity data would be by September 30 of the year after the inventory year, or 60 calendar days after the EPA provides airport data to a State, whichever is later (*i.e.*, for the 2023 inventory year, by September 30, 2024, or later). This deadline and others are summarized below in section IV.S of this preamble.

In addition, the EPA is considering that there is a distinction between emissions from stationary source units (*e.g.*, boilers) at typical point sources as compared to the emissions from aircraft and ground support equipment. To the extent that an airport has emissions sources other than aircraft and ground support equipment, and the emissions from the airport exceed the point source reporting thresholds included in this proposed action, those additional stationary sources should be reported consistent with non-airport point source requirements. For example, if a boiler is run at an airport for heating and the total airport emissions cause the airport to meet the point source reporting thresholds, then emissions from that boiler would need to be reported under this proposed action. To clarify this

point, the EPA proposes that States must report stationary sources and qualifying mobile sources as per IV.I.16 of this preamble (other than aircraft and GSE) at airports.

States may voluntarily submit annual total emissions for aircraft and GSE for some or all airports. However, the EPA is proposing a requirement that if a State chooses to report annual total emissions, they would be required to: (1) use the latest airport emissions model specific in the NEI plan, (2) submit all pollutants estimated by the latest airport emission model, and (3) submit documentation that describes how States used the model to estimate emissions and performed QA steps.

2. Formalizing the Approach for Rail Yards

Like airports, rail yards may sometimes meet the existing definition of point sources under this subpart, and with this proposed action including HAP emissions reporting thresholds described in section IV.A.8 of this preamble, additional rail yards may be defined as point sources for the AERR in the future. Rail yard data include emissions from yard locomotive switchers and can include other emissions sources if present. As with airports, the Agency's goal of complete emissions is supported by a comprehensive inventory of emissions associated with locomotives to support analyses that may result in new regulations affecting these sources. Rail yards have also been identified as important sources of HAP in some communities.⁵⁴ For these reasons, the EPA has reviewed its approach for rail yard emissions, which has many similarities to the airport approach.

EPA works with rail companies who voluntarily provide activity data about rail yards for point sources and locomotive activity for nonpoint sources. Emissions from both rail yards and locomotives are interrelated, and a complete accounting of these sources and activities would create a comprehensive and consistent emission inventory across these activities. Accounting of rail yards cannot be only for those that meet the definition of point sources because data from all rail yards are needed to fully understand the

locomotive emissions on rail lines and achieve a complete inventory.

In past triennial inventory years, the EPA provided the rail yard data for voluntary State review and accepted comments and revisions to that data from States. The EPA estimated emissions relying heavily on collaboration with the Eastern Research Technical Advisory Committee (ERTAC). The resulting emissions data for rail yards provided a fallback estimate of emissions at rail yards not reported by States.

In assessing States' compliance with the current AERR, the EPA has previously accepted the States' provision of rail activity data as being sufficient to meet the point source requirements for those rail yards that exceed the point source reporting thresholds. This approach both reduces burden for States as well as provides the EPA information to estimate emissions. When the NEI includes EPA-created emissions, the public has full transparency about how the data have been created including QA steps. The approach also creates a consistent dataset for all rail yards to use in QA of state-provided annual total emissions submitted, and it allows the EPA to use the latest available emissions estimation approaches.

As with airports, the existing voluntary approach with States provides the most advantage when used consistently across all rail yards. This is true for the same reasons as for airports and to meet EPA's interest in comprehensively understanding rail yard emissions to best meet Agency goals.

In the past, many States have not had an independent source of data other than that provided by EPA. One approach for States to obtain that data would be for States to require it from rail companies; however, since rail companies operate across State boundaries, it is preferable for these companies to work directly with a central coordinator like the EPA and ERTAC. Nevertheless, nothing in the existing requirements of this subpart or any proposed requirements of this action would prevent States from collecting such information from rail companies if such data were not otherwise available.

Unlike the publicly available LTO data for airports, the current rail yard approach for the NEI relies on voluntary reporting by a limited number of existing rail companies. While this approach has mutual benefit to both the EPA and those companies, it is nevertheless a voluntary measure. Thus, in formulating the requirements under

⁵⁴ Spencer-Hwang, R., Montgomery, S., Dougherty, M., Valladares, J., Rangel, S., Gleason, P., Soret, S., *Experiences of a Rail Yard Community: Life is Hard*, J Environ Health. 2014 Sep; 77(2): 8–17. Eiguren-Fernandez, A, *Exposure to Rail Yard Emissions and Possible Health Impacts on Adjacent Communities*, Center for Occupational and Environmental Health, Southern California Particle Center, October 4, 2010, <http://www.scientificintegrityinstitute.org/coehrail100410.pdf>.

this proposed action, the EPA is considering the possibility that rail companies may not provide data voluntarily for one or more triennial years. This exact situation has been experienced by the EPA for the 2020 triennial inventory. In this case, this proposed action must consider that the EPA cannot offer States an option to reduce State burden by compiling the rail yard activity when such data are not provided by rail companies.

Given these considerations, the EPA is proposing distinct requirements for reporting of rail yard data by States, which differ from the more general point source requirements. This action proposes in § 51.15(c) to add two options for States to report data for rail yards in triennial years. States may either (1) submit rail yard activity data and documentation for some or all rail yards within the geographic scope of the States' implementation planning authority using formats provided by the EPA or (2) review rail yard data and annual emission totals provided by EPA, submit comments on that data, and/or notify the EPA that the State accepts that data. This second option is available to States because rail companies voluntarily provide rail yard data to the EPA (included as part of the voluntary burden estimates for this proposed action). This voluntary data flow is likely more convenient for rail companies than if each State needed to collect data from them individually to meet the provisions of these proposed requirements.

The EPA is additionally proposing that States may voluntarily submit annual total emissions for some or all rail yards, and if a State chooses to report emissions would then be required to meet the following requirements for the EPA to consider using such data. The EPA is proposing to consider state-submitted emissions data for rail yards only when the State: (1) submits all pollutants estimated by EPA's rail yard emissions method to be used for the relevant inventory year (described by the NEI Plan) and (2) submits documentation that describes how States calculated annual total rail yard emissions and performed QA steps.

While the proposed approach above is EPA's preferred approach, the EPA is also considering a "Rail Companies" Option that would additionally regulate the rail companies directly to provide activity data to EPA. For the Rail Companies Option, the EPA proposes that owners/operators of rail companies would be required to report activity data from of those yards to EPA. The Rail Companies Option would have a disadvantage of imposing more

requirements than continuing the ongoing voluntary approach with rail companies. The EPA requests comment on the Rail Companies Option and urges commenters to provide any additional information that would be helpful to the EPA in deciding between a voluntary and mandatory rail yard activity reporting approach.

3. New Requirements for Point Source Control Data

Since the EPA started collecting emissions data through the EIS, some States have made the EPA aware that allowing States to specify controls was insufficient to appropriately allow specification of the necessary details. In the current control device reporting requirements of this subpart, States have been unable to describe fully how controls are configured at a facility (*e.g.*, series or parallel), define the relationship among multiple control measures and the units, processes, and/or release points at a facility, or reuse the definition of a control measure in the dataset so that the same control measure can be associated with more than one unit, process, or release point. Such control configuration information is relevant to certain uses of the NEI, such as Technical Reviews and Regulatory Impact Analyses.

Based on this understanding, the EPA is proposing a requirement to specify controls to remove the limitations of the current requirements. This new proposed requirement would use a list of control measures for a facility that is analogous to those control measures that exist in the real world, wherein each control would define only a single piece of control equipment or control measure, and a control path can be defined that would allow control measures to be arranged in any configuration of series and parallel control measures.

This action proposes revisions to the data elements required for specifying controls. This proposed action adds new data elements in Table 2a to Appendix A of Subpart A to Part 51. These proposed data elements include *control paths*, which are defined as one or more controls at a facility that are linked. The path can consist of groups of control measures or other paths in parallel or in series. The proposed data elements also include *control apportionment*, which is defined as the percentage of the emissions that flows to the next control or path, and *control assignment*, which defines the sequence in which controls are configured within a path. Other proposed data elements to specify controls are similar to existing requirements, such as the pollutants

affected, and percent reduction achieved. to Appendix A. More information on controls is available in Appendix A of the CAERS User Guide.⁵⁵

4. New Requirements for Point Source Throughput in Specific Units of Measure

The EPA has observed during past triennial inventory cycles a potential for double counting of emissions from stationary sources of fuel combustion, because those sources exist both in the point source and nonpoint data categories. Stationary fuel combustion for point sources occurs at sources that meet the point source reporting thresholds while fuel combustion for nonpoint sources reflects emissions from smaller commercial and institution facilities such as shopping malls, office buildings, municipal buildings, and hospitals. These nonpoint emissions are captured in the NEI through the industrial, commercial and institutional (ICI) fuel combustion sectors, and these sources are a significant portion of the total emissions inventory for many areas. For example, according to the 2017 NEI, statewide NO_x from ICI combustion sources represented up to 27 percent of NO_x, with a median of 9.1 percent over all States, when calculated by excluding fires and biogenic sources from the total. Using the same calculation approach, statewide PM_{2.5} from ICI combustion sources represented up to 28 percent of statewide PM_{2.5} with a median of 3.2 percent. Nonpoint commercial and institutional fuel combustion includes emissions from boilers, engines, and other combustion sources that burn natural gas, biomass, distillate fuel oil, residual fuel oil, kerosene, liquefied petroleum gas (LPG), and coal.

The EPA's approach to capture nonpoint ICI fuel combustion uses statewide fuel consumption data from the U.S. Energy Information Administration for the various fuel types and allocates it to counties based on employment in the industrial or commercial sector from the Census Bureau's County Business Patterns data. The EPA makes numerous adjustments to the fuel consumption based on various data available to EPA, such as subtracting nonroad source fuel consumption and non-combustion uses from State total fuel use.

To avoid double counting with point source emissions, the EPA currently

⁵⁵ Combined Air Emissions Reporting System (CAERS) User's Guide, Version 2.0, U.S. EPA, 2/25/2021, <https://www.epa.gov/e-enterprise/combined-air-emissions-reporting-system-caers-users-guide>.

provides, as part of the nonpoint data collection, various options for States to supply point source fuel consumption. Some States, however, do not provide such data in part because they do not have that data from facilities. Over many triennial NEI years, the EPA has observed that some States claim that their State does not have any nonpoint fuel consumption; however, the EPA finds this claim implausible given that those States do not include every shopping mall, office building, municipal building, and hospital in their point source inventory. As a result, the EPA has had to make assumptions about point source fuel consumption to subtract it from the nonpoint fuel consumption totals. These assumptions reduce the accuracy of the inventory. Such inaction on the part of States directly contradicts the CAA section 172(c)(3) requirement for “comprehensive, accurate” inventories. Furthermore, this issue is not only significant for the NEI, but also is relevant for emissions inventories required under the Ozone and PM_{2.5} SIP Implementation Rules.

To date, the EPA has attempted to resolve the issue through collection of total point source fuel use by each State as part of the nonpoint ICI data collection. The EPA has experienced that some States continue to avoid this requirement by making implausible claims that all such sources for all fuel types do not exist or stating that States lack the data. Given the importance of such information to States and EPA, the EPA is proposing action to ensure States are aware of this issue and to support creation of accurate ICI fuel combustion emissions for both point and nonpoint sources.

Further, the EPA recognizes the potential for directly receiving such information from owners/operators of point sources as part of the requirements proposed by this action. To address the connection with direct reporting to the EPA by owners/operators, the following paragraphs explain what owners/operators would potentially do to support the Agency’s need for fuel consumption data.

The EPA has developed and implemented a point-nonpoint reconciliation approach to resolve any double counting of ICI fuel combustion sources, but challenges remain. The EPA has refined the nonpoint ICI fuel combustion approach for each NEI triennial year, resulting in the most recent approach as described in the 2020 NEI TSD.⁵⁶ The EPA’s revisions to

the approach have relied on States’ comments and concerns as part of each triennial NEI process. Based on these activities, the EPA has concluded that to prevent double counting of emissions between point and nonpoint ICI sources, the point-nonpoint reconciliation must be based on subtracting point source fuel consumption from the total fuel consumption within a State. This is in contrast with past approaches that allowed subtraction of emissions, which has been found to be insufficient because point source emissions are often controlled such that subtracting emissions does not remove the correct proportion of ICI activity from the nonpoint emissions.

When States use the approach currently provided, the EPA is satisfied that the emissions estimates avoid double counting and provide the best available emissions inventory estimates. While the nonpoint approach may continue to evolve, the EPA expects that the point source fuel use will continue to be a critical part of that process. While the current approach is conceptually simple, the EPA has concluded that this proposed action should ensure that the EPA and States have access to the fuel consumption data from point sources.

To ensure that the EPA and States have data to support point-nonpoint reconciliation for ICI fuel combustion, this action proposes to require States to collect and report point source fuel consumption for certain emissions processes. These proposed changes are reflected in the proposed Table 2b to Appendix A of this subpart. It is necessary to collect fuel consumption from point sources, because under this proposed action, point source data would be reported every year for all sources. The annual reporting would allow the EPA and States to subtract point source fuel consumption from State total fuel consumption irrespective of whether States report nonpoint data on a triennial year. The EPA is proposing that fuel consumption totals by fuel to be required for all SCCs for a given inventory year that reflect any fuel consumed after it has been produced and sold for consumption. Thus, any in-process fuel combustion (such as combustion of captured process gases) would be exempt from this proposed requirement. For triennial years, States would have additional requirements for nonpoint sources,

which are described in section IV.J of this preamble.

EPA additionally proposes that owners/operators of point sources, who are reporting directly to EPA, must include fuel consumption data. The EPA has already added this collection approach into the CAERS for use by owners/operators. To the extent that States wish to leverage this feature of CAERS rather than comply with their fuel use reporting requirement a different way, the EPA recommends that States evaluate the possibility of using fuel consumption data provided by facilities that report using CAERS.

Depending on States’ choices about reporting HAP on behalf of owners/operators, the EPA recognizes that the fuel consumption data may come from owners/operators for some facilities and processes (*i.e.*, those with HAP emissions), but fuel consumption data for other facilities and processes may come from States reporting CAP emissions. As previously described, this proposed action would not require States to participate in CAERS. This flexibility for States could result in owners/operators needing to report the fuel consumption both to the EPA through CAERS and to the State. To avoid this additional burden on owners/operators, the EPA encourages States to participate with CAERS in one of the data flows that would avoid duplicative burden on owners/operators for fuel consumption.

5. New Requirement for Including Title V Permit Identifier

Title V of the CAA forbids major sources and certain non-major sources from operating without a permit. The vast majority of “title V” operating permits are issued by State or local authorities under State rules approved by the EPA to issue such. Title V operating permits are required to address all applicable pollution control obligations (*i.e.*, applicable requirements) under the SIP or Federal implementation plan (FIP), the acid rain program, the air toxics program, or other applicable provisions of the CAA (*e.g.*, NSPS including solid waste incineration rules). Sources must also submit periodic reports to the permitting authority concerning the extent of their compliance with permit obligations. The EPA has adopted regulations at 40 CFR part 70, which define the minimum elements required for State operating permit programs. In certain circumstances, the EPA also issues title V permits under 40 CFR part 71, the Federal operating permit program.

The EPA receives copies of permit applications, permits and facility annual

⁵⁶ U.S. EPA, 2020 National Emissions Inventory, Technical Support Document, March 2023, EPA

Document number EPA-454/R-23-001, <https://www.epa.gov/air-emissions-inventories/2020-national-emissions-inventory-nei-technical-support-document-tsd>.

compliance reports and is aware that a great deal of information is available from title V operating permits and from the reports that result from the monitoring and reporting requirements that the permits are required to contain. For the same reason, users of the NEI data often seek permitting information about facilities within the NEI. States and the EPA have developed repositories of title V permits, with much of that information available online. In most cases, perhaps all cases, the title V operating permits have a permit identifier that allow for distinguishing a permit from other title V operating permits. While there is no requirement under 40 CFR part 70 for assigning a unique identifier for title V operating permits, federally permitted title V sources do have permit identifiers and the EPA is aware that most, if not all, State permit programs also use permit identifiers. Based on EPA's current information, States often rely on a variety of numbers to uniquely identify various versions of a source's title V permit, including the title V permit number, an application number, project number, and the State's source identifier number. The EPA is seeking comment on which unique identifiers it should collect as a permit identifier.

Given the importance of easily associating point sources within the NEI with their Title V operating permits, this action proposes to require States to report Title V operating permit identifiers for all Title V sources that are also point sources as defined by the proposed revision to 40 CFR 51.50. Similarly, this action proposes to require owners/operators of facilities to report a Title V operating permit identifier when they would report annual emissions totals and associated data to the EPA under this action. The EPA additionally proposes that this requirement would take effect starting with the 2026 inventory year. Because the definition of point sources in this action does not necessarily include all Title V sources, it is possible that this action will not collect all Title V operating permit identifiers, but the EPA expects most of them to be collected under this proposed action based on the proposed point source definition.

6. New Requirement To Use the Best Available Emission Estimation Method

EPA guidance published in AP-42 has long established a hierarchy of information quality on which States and sources should rely to estimate emissions. The Introduction to AP-42,

Volume I⁵⁷ provides general guidance about different ways to estimate emissions from sources. Regarding stationary sources, page 1 of the Introduction to AP-42 describes that “[d]ata from source-specific emission tests or continuous emission monitors are usually preferred for estimating a source's emissions because those data provide the best representation of the tested source's emissions.” The document goes on to acknowledge on page 1 that such tests may not be available, and that in such cases, emissions factors are “the best or only method available for estimating emissions.” It also describes on page 2, “because emissions factors essentially represent an average of a range of emission rates, approximately half of the subject sources will have emission rates greater than the emissions factor and the other half will have emission rates less than the factor.”

Figure 1 of Introduction to AP-42 provides a hierarchy of emission calculation methods whereby the methods near the top of the hierarchy are methods with greater accuracy and methods near the bottom would generally have lower accuracy. In reference to this figure, the Introduction to AP-42 guides those who seek to estimate emissions by stating on page 3, “[s]electing the method to be used to estimate source-specific emissions may warrant a case-by-case analysis considering the costs and risks in the specific situation.” In this case, the “cost” consideration primarily applies to the decision about whether to add a CEMS or perform a source test, since the costs for simply looking up an emissions factor and applying it in a calculation are negligible in comparison to those other measurement options. Another cost could be incurred in cases where a new emissions estimation method needs to be developed because none are available.

As described previously, the EPA is interested in obtaining high quality emissions data. Regulatory and other decisions are made by the EPA based on the data collected by the AERR; however, the current AERR requirements are silent on the question of how emissions should be calculated. While this lack of specificity provides States and their regulated sources flexibility in how emissions estimates are created, the current AERR leaves open the possibility that the best available emissions estimation approach

may not be used in estimating and reporting annual emission totals.

The EPA is considering the advisability of adding requirements for emissions testing at facilities for the purpose of improved emissions estimates. In addition to a large burden any such requirement would impose, the great variability of source types, source sizes, pollutants, source measurement methods, and other factors would make structuring such a requirement extremely difficult. Many requirements on facilities to perform source tests and performance tests for compliance purposes already exist. Given these considerations, an addition of source testing requirements would likely be too unwieldy to be successful.

Without a requirement for sources to perform additional measurements above and beyond what they are currently performing, the EPA can still rely on the available data that States and owners/operators of point sources have to estimate emissions. To ensure the highest possible quality data be provided, the EPA proposes to require in § 51.5(a) that States and owners/operators of facilities use the best available methods to report annual actual emissions. Further, the EPA proposes to refer to Figure 1 of the Introduction of AP-42 and include the expectation that States and owners/operators of facilities should preferentially use available emissions calculation methods at the top of the hierarchy over emissions calculation approaches lower in the hierarchy. The EPA also proposes that the best available emissions estimation method be used both to determine whether emissions exceed any proposed reporting threshold and for reporting emissions to the EPA when required or voluntarily reported. Finally, paragraph (a) of the proposed regulatory text explains that where current guidance materials are outdated or are not applicable to sources or source categories, owners/operators should develop and document new techniques for estimating emissions, which should rely on any available source measurements applicable to the emissions source(s). In proposing this approach, the EPA is seeking to strike the appropriate balance between EPA's need to obtain the best information and the burden that would be imposed by requiring additional source testing.

The CAA delegates responsibility for estimating emissions of CAPs to States and requires emission inventories reported by States to be “comprehensive, accurate, and current” in CAA section 172(c)(3). Thus, when source tests, performance tests, or

⁵⁷ The Introduction to AP-42, Volume I, Fifth Edition, U.S. EPA, January 1995, <https://www.epa.gov/air-emissions-factors-and-quantification/ap-42-compilation-air-emissions-factors>.

continuous emissions monitor data are not available, States and owners/operators of facilities may use available emission rates from EPA compilations of emissions factors such as WebFIRE and AP-42 to estimate emissions. The EPA proposes a clarification in § 51.5(e) of the proposed regulatory text that emissions factors should represent the emissions process and controls at the facility.

The EPA has observed that many States use EPA's emissions factor compilations as the primary source of emission rates in their emissions data collection tools. For this reason, States sometimes do not report emissions from a process that does not have an EPA-provided emissions factor. While the EPA strives for a complete compilation of emissions factors, the CAA holds the States responsible for providing emission inventory data for CAPs. Therefore, States may not claim that emissions do not need to be reported simply because an EPA emissions factor is not available through EPA's emissions factor compilations.

Related to the possibility of missing emissions factors or calculation methods, the SBAR Panel Report completed for this proposed rule included a recommendation that the EPA avoid requiring small entities to develop a new emissions estimation method when none existed. Small entity representatives who participated in the panel process indicated that such efforts are beyond their resources and would impose an undue burden on small entities.

To clarify the expectation of emissions reporting while avoiding undue burden on small entities, the EPA proposes to include within § 51.5(a) a statement that "where current guidance materials are outdated or are not applicable to sources or source categories, an owner/operator (other than a small entity) should develop and document new techniques for estimating emissions, which should rely on any available source measurements applicable to the emissions sources(s)." States may estimate emissions with other approaches as described above.

The EPA is responsible for quality assurance of emissions data collected from owners/operators. While the requirements described in this section should help ensure high quality data is reported, the EPA may identify problems with the data as part of quality review. Based on this consideration, the EPA is proposing a statement at § 51.25(c) that as part of this review, the EPA may require an owner/operator of a point source to review and/or revise data that do not meet quality assurance

criteria. The EPA proposes that it may additionally require an owner/operator of a point source to provide other data or documentation to support their submissions when information provided does not fully explain the source or quality of the data provided.

7. New Requirement To Use Source Test Reports for Emission Rates

In the case of source test or performance test data being used for emissions estimates, the tests that represent the typical operation of a source during the year should be used. Fortunately, many source tests are designed to measure emissions during typical operations of a source. Because of this, the EPA expects that most source tests should be relevant for estimation of emissions from the part of a facility that has been measured.

In addition to the use of the best available emission estimation method as described above, the EPA proposes requirements specifically regarding the use of source test data. The EPA proposes to require at § 51.5(c) that owners/operators of point sources that are submitting point source emissions data directly to the EPA under this subpart must use the most recent source test(s) or CEMS data applicable to the operating conditions of the facility during that year to provide annual actual emissions. When reporting directly to EPA, owners/operators should determine which data to include in any averaged emission rate used to estimate actual annual emissions. The EPA additionally proposes that when an owner/operator has source test or monitoring data for a unit, process, or release point that operated during the reporting year and the owner/operator does not use that data to estimate emissions, the owner/operator would be required to submit a justification for that choice for each unit and pollutant for which such data are not used to estimate emissions.

States would not be subject to the requirements for emissions data on owners/operators of point sources. To account for this, the EPA proposes a related requirement on states in § 51.5(d). The EPA proposes that states submitting point source emissions on behalf of owners/operators to the EPA under this subpart must ensure that owners/operators of facilities submitting data to the State take the same approaches as described in paragraphs § 51.5(a) through (c) of this subpart. If a State submits data for a facility that has not used available source test data or continuous monitor data to estimate emissions, then the State must submit a justification for that choice for each unit

and pollutant for which such data are not used to estimate emissions. The EPA expects that the justification would be collected by the State from owners/operators.

8. New Requirement To Identify Regulations That Apply to a Facility

The EPA and States have numerous regulations that require owners/operators to meet various requirements and emissions limits for a wide variety of source categories. When the EPA or States issue a permit for a facility (e.g., Title V operating permit), the permit includes the regulations to which a facility is subject. This existing permitting paradigm allows EPA, States, and the public to easily determine the regulations that affect a specific facility. However, since these permits are primarily on paper or an electronic format such as Portable Document Format (PDF), the current permitting approach makes it difficult for EPA, States, or the public to determine all the emissions units across the U.S. that are affected by a given regulation. With this action, the EPA is considering addressing this limitation by collecting certain additional data elements from owners/operators and States that would link key permit information with facilities and units in the emissions inventory.

An approach to provide such linking would be prudent because the EPA routinely needs to identify all the facilities and units that are regulated under Federal or State regulations that reduce emissions. For example, the EPA needs to identify those facilities and units subject to a particular NESHAP so that the EPA can evaluate the residual risk associated with the source category or to perform a technology review. Likewise, in making estimates of future-year emissions necessary for a RIA or proposing solutions to transported emissions, the EPA needs to understand which units are subject to state-imposed pollution reduction programs that may go beyond EPA requirements as opposed to a State implementing a particular EPA requirement. In addition, accurate information about how a regulation affects facilities nationwide would help the public know more about the ongoing benefits of EPA's regulations.

Using the current approach of paper or PDF permits, the EPA is able to identify affected units for selected regulations; however, the EPA has found such efforts to be labor intensive, time consuming, and subject to error. While some States do have electronic permitting systems that reduce these burdens for EPA, the systems are

typically not designed in a way that meets EPA's needs and even if such a design were available, it would cover only those States that provided it.

In addition to the challenges posed by paper/PDF formatting versus electronic datasets, the EPA has identified several reasons why the current permitting approach is not sufficient for these emissions inventory purposes. One reason is that unit identifiers included in permits are not always the same as those identifiers used in the emissions inventory. Thus, it is not necessarily possible to match the unit(s) as identified in a permit with those units and their emissions from an inventory. A second reason is that States do not have a uniform permitting approach that could allow for automating the scanning of paper/PDF documents. One way to eliminate these challenges would be a wholesale revamping of permitting that connects permits to emissions inventories (as some States have done) and to ensure facility IDs and units are synchronized across permitting and emissions inventories. However, this sort of endeavor would generate significant burden and would affect much more about the permitting process than simply getting the data that the EPA needs for inventory purposes.

To create the data flow needed to address this issue and to minimize burden, this action proposes to require certain additional data elements for point sources from States and owners/operators of point sources. For the major source designation, this action has already described a proposed requirement for States and owners/operators of facilities to provide a title V permit identifier, and that requirement would help provide the Major source designation information but does not address whether the source is a Major source for CAPs, HAP, or both. To allow for full categorization, this action proposes to include a reporting requirement in Table 2a to Appendix A of this subpart, a Facility Source Category Code. This code would allow a facility to be designated as one of the following: CAP major, HAP major, HAP and CAP major, HAP, and nonattainment area major, nonattainment area major, non-major, or synthetic non-major. The EPA additionally proposes that this requirement would not take effect until the 2026 inventory year (to be reported by May 31, 2027).

This action additionally proposes to require States and owners/operators of point sources with State or Federal operating permits to report the regulatory applicability for each unit or process for which a federally

enforceable regulation applies and is included in EPA's list of regulatory codes. Currently the list includes regulations within 40 CFR parts 59, 60, 61, 63, and 65. The EPA provides the list through the EIS and has included the current list in the EPA docket for this action. As described in section IV.A.12 of this preamble, this proposed requirement would include an optional accommodation for small entities (that meet certain criteria) to require only reporting of these additional data elements by unit, even when the regulation applies only for a particular process of the unit. The EPA additionally proposes that these requirements would not take effect until the 2026 inventory year (to be reported by May 31, 2027).

Under this proposed action, States or owners/operators of permitted sources would be required to provide the regulatory codes for a unit when the entire unit is subject to a particular regulatory requirement in EPA's list and would be required (if not a small entity) to provide the regulatory codes for a process (e.g., a particular fuel burned at that unit) if a single process within a unit is subject to a regulation but not the entire unit. This requirement would apply to all facilities for which a State/local/tribal CAA permitting authority (including the EPA as the permitting authority) has issued a permit for construction or for operation.

If a State or owner/operator provides a regulatory code for a unit (rather than a process at that unit), then the EPA would assume that regulation applies to all processes at that unit. In addition, the required data would include the start-year and any end-year of applicability of the regulation to the unit or process. Finally, States and owners/operators may optionally include any State regulations associated with units and processes. If such optional regulations are included, then the State or owner/operator would also need to include a description of the State regulation.

The EPA recognizes that this proposed requirement would impose some incremental burden on owners/operators and States. Most of this burden would occur in the first year of reporting under the new requirements as proposed, and subsequent years would see a decline in that burden because only changes to the information would be required to be reported, as the EIS and CAERS carries forward data about regulations from one year to the next.

9. Existing Regulatory Requirements To Be Required by EPA Data Systems

The EPA has identified several data fields that are relevant to perform its regulatory functions, for which States have not always provided complete data. The current AERR requires reporting of design capacity and associated data elements like unit of measure for any point source combustion units. The current AERR additionally requires the throughput that is used to calculate emissions when emissions are calculated using emissions factors. EIS does not currently reject States' data when it does not include these required data elements. The current approach is based on feedback from States offered as part of routine collaboration for the NEI in which States indicated that the information was not available in their data systems when the EPA started using the EIS for the 2008 inventory. After collecting 2008 inventory data, the EPA observed that some States used default values rather than obtain accurate data for these fields. For this reason, the EPA stopped requiring those fields so as not to clutter its repositories with inaccurate data based on State defaults.

Accurate information on design capacity and associated fields will help the EPA better understand the size of combustion units when evaluating alternative regulatory approaches to reducing emissions from these sources. Accurate and complete data about throughputs used to estimate emissions is critical to include so that the EPA can quality assure the resulting emissions data and have all information needed to transparently provide the origin of the emissions estimates in the NEI. To achieve this, the EPA plans to reject data submitted to EIS that does not include the unit design capacity and associated data elements required under the current AERR and in this proposed revision to the AERR for any combustion unit starting with the 2023 inventory cycle. Likewise, the EPA plans to reject data submitted to EIS for emissions estimation methods that require throughput to calculate emissions (e.g., emissions factors) when the throughput data are not included in the submitted emissions reports. The EPA is not reopening these requirements included in the current AERR but rather is simply using this preamble to explain the Agency's intent to start collecting these data once again.

10. Option for Reporting Two-Dimensional Fugitive Release Points

The current version of this subpart already allows for States to report two-dimensional fugitive release points. These fugitive release points can take the form of a series of vents near the top of a manufacturing building, whereby any pollutants inside the building can be vented to the ambient air. These two-dimensional releases can be oriented in any position. The current version of this subpart provides that these two-dimensional fugitive release points can be specified using a latitude/longitude of the southwest corner of the release, width, length, and an orientation angle in degrees from north, measured positive in the clockwise direction from the western-most point. The definition of the appropriate angle to use has been challenging for States to understand and implement.

Fugitive release parameters are very important because they impact modeled risk. Often fugitive releases are lower to the surface and thus may pose an increased risk to nearby communities as compared to tall stacks that disperse the pollutants before they reach ground level. The EPA's review of data from past inventory cycles shows that either fugitive releases are not included in State submissions or when submitted, the two-dimensional release parameters are incorrect. The inaccuracy of these data is a significant reason for adjustments to the NEI for use in EPA technology reviews and risk reviews, after the NEI has been completed. This additional review takes time and delays regulatory actions and consequently delays protection of public health. These delays could be avoided if States (and/or owners/operators of facilities reporting to EPA) were to submit correct information. To address the challenges of the existing angle-based, two-dimensional fugitive release points, the EPA is proposing a simpler approach.

The EPA has devised a new approach that is easier to understand and has been previously implemented as part of the RTR program's information collections under CAA section 114 and in CAERS. This approach relies only on the width of the two-dimensional releases (*e.g.*, the building width) and coordinates of the midpoints each end of the length of the release. The latitude/longitude coordinates are readily obtained through GPS devices on common cell phones, and the building width can either be measured or obtained from building plans. The greater simplicity of this proposed additional approach suggests that it will assist States and owners/operators in

complying with the provisions of this subpart that include reporting fugitive release points and their associated coordinates.

Based on these considerations, the EPA proposes to allow States and owners/operators to use either the existing angle-based approach for this current subpart or the new approach as just described. The current approach allows for States who have previously collected accurate two-dimensional release point data to continue to provide that. The new approach will help reduce burden, improve compliance with this subpart, and improve data quality. It allows reporting the orientation of two-dimensional fugitive releases by providing the latitudes and longitudes for center of the sides of each release. For the example of a rectangular building with vents (a common fugitive release), this approach would allow a GPS-provided location to be collected by someone while standing first at the midpoint of one side of the building, then at the midpoint of the opposite side.

While this action proposes to retain the angle-based approach, the EPA continues to consider a second option that would phase-out the angle-based approach in the future. This "Single Fugitive Approach Option" would provide less overall complexity for the data system and allow for easier quality control. It also would compel States that may incorrectly assume that their data are accurate to regenerate that data using the new approach, improving the accuracy of the emissions data. If the EPA were to eliminate the angle-based approach from the reporting structure, it would consider doing so as early as the 2023 inventory year (which would be due under this proposal by January 15, 2025) or as late as the 2032 inventory year (which would be due under this proposal by May 31, 2033). The EPA urges commenters to provide input on the advisability of retaining the angle-based approach indefinitely or phasing it out during the periods suggested.

11. Changes To Reporting the North American Industrial Classification System Code

The current AERR requires that point source reports include a single NAICS that applies to a facility. The EPA has observed that multiple NAICS may apply to a single facility. To support the interest that some States and owners/operators may have in reporting all applicable NAICS codes, the EPA has included in its latest reporting formats (as included in the docket for this proposal) a capability that allows States to report multiple NAICS for the same

facility. When multiple NAICS are reported voluntarily, States need to provide an additional data element to indicate which NAICS is considered the primary NAICS and allows for labeling the other NAICS provided as secondary, tertiary, etc.

EPA is proposing to formalize this voluntary approach by including an additional NAICS Type data element, and that this data element is only required when multiple NAICS are reported. The EPA proposes that reporting multiple NAICS and including the NAICS Type data element would be voluntary for both States and owners/operators. However, when multiple NAICS are voluntarily reported, the NAICS Type data for at least one NAICS would be required to indicate the primary NAICS. The EPA would assume that any State and owner/operator reporting a single NAICS is reporting the primary NAICS.

With the addition of the concept of primary NAICS, the EPA has identified the need to define that term. The EPA considered definitions available from the small business administration (13 CFR 127.102), the GHGRP (40 CFR 98.3), and the TRI program (40 CFR 372.22). After reviewing these available definitions, the EPA is proposing to define primary NAICS as "the NAICS code that most accurately describes the facility or supplier's primary product/activity/service. The primary product/activity/service is the principal source of revenue for the facility or supplier."

In addition, the EPA is proposing to specify the number of digits for the NAICS value that States and owners/operators must include when reporting. The NAICS system allows for NAICS codes from 2-digits to 6-digits, where more digits provide more specifics about the business activity. As previously described in section IV.A.8, the EPA is proposing a list of NAICS codes for which facilities with that primary NAICS code would report HAP for those emitted pollutants that exceed proposed reporting thresholds. This list of NAICS sometimes includes 5- and 6-digit NAICS, so it will sometimes be necessary for facilities to identify a NAICS at that degree of specificity.

In its work with States, the EPA has learned that some State systems continue to allow facilities to report emissions with only Standard Industry Codes (SICs), which OMB replaced for use by Federal agencies in 1997.⁵⁸ In 2008, the EPA required that NAICS be used in State reports under the AERR

⁵⁸ See U.S. Census, North American Industry Classification System, 2023. <https://www.census.gov/naics/?99967>.

(73 FR 76539); however, when States collect SIC, they must map it to a NAICS code for reporting for this subpart. This mapping can result in less specific NAICS. For this and other reasons, some States have been unable to report NAICS beyond a 4-digit degree of specificity.

As will be described in section IV.R, the AERR is referenced as providing a required data format for numerous SIP inventory requirements. Given nearly every State has at some point since 2008 needed to prepare SIP emissions inventories, the EPA does not know why some States do not collect NAICS from their facilities for meeting the AERR and SIP inventory reporting requirements. The EPA seeks comment from States on what obstacles exist for modernizing their collection. Considering that the EPA now provides the CAERS for use by States and CAERS includes collection of NAICS, the EPA expects all States should update their emissions collections from facilities to meet the AERR requirements for NAICS, originally issued in 2008.

Additionally, the EPA describes in section IV.A.6 its proposal to allow States to voluntarily report HAP on behalf of owners/operators, which would require States to adopt the same reporting requirements for HAP as the EPA has issued in a final AERR rulemaking. If finalized, this provision would make collection of NAICS by States essential to being able to report on behalf of owners/operators.

As part of its efforts through CAERS to better share facility data across emissions inventory programs, the EPA has evaluated the requirements of the TRI, CEDRI, and GHGRP collections and the requirement for NAICS. The TRI program requires a 6-digit NAICS code (40 CFR 372.85(b)(5)). The CEDRI program does not require NAICS, but when it is provided voluntarily, requires that it be provided with 6 digits. Finally, the GHGRP program requires at 40 CFR 98.3(c)(10) that the NAICS be provided “that most accurately describes the facility or supplier’s primary product/activity/service.” The GHGRP has implemented this using a 6-digit NAICS requirement.

Given these considerations, the EPA is proposing to require 6-digit NAICS in reports from States and owners/operators under this subpart. In many cases, 5-digit NAICS are the same as 6-digit NAICS available by appending a zero. In cases where there are more specific 6-digit NAICS that correctly describe a facility, then States and owners/operators should use it. When a 5-digit NAICS is the best representation of a facility, such as when none of the more specific 6-digit NAICS correctly

describe the primary economic activity at a facility, States and owners/operators may instead report a 5-digit NAICS. For those owners/operators of facilities also reporting to other programs with a 6-digit NAICS, the EPA would encourage reporting with the same NAICS when appropriate. In addition, a 6-digit NAICS would support determination by States and owners/operators whether they are subject to reporting requirements if the EPA finalizes the proposal to use NAICS as one basis for HAP reporting requirements for non-major sources. Further, if the EPA were to finalize the SBA Definition Alternative for defining small entities (see section IV.A.14), 6-digits would be necessary for implementing NAICS-specific criteria for small business definitions. This proposed requirement would also provide the EPA more specific information about activities at each facility and better standardize the available data to the agency, States, and the public.

12. Clarification About Definition of the Facility Latitude/Longitude

Since the inception of the NEI program, the EPA has observed problems with the accuracy of facility locations. In the current AERR, Table 2a to Appendix A of this subpart specifies that for point sources, States must report “latitude and longitude at facility level.” However, the AERR provides no definition of this location.

As described in sections IV.A.11, EPA is additionally proposing requirements to collect coordinates for release points, to allow for appropriately accurate estimation of cancer risk and other health impacts associated with HAP. This “facility-level” coordinate serves several purposes in implementing the NEI program. First, EPA uses the facility-level coordinate to quality assure release point coordinates as they are being submitted electronically, to make sure that the release point coordinates are within a reasonable distance to the facility-level coordinate (EPA has adjusted and may further customize these “reasonable” distances for each facility to further improve the quality assurance). In addition, the single facility-level coordinate is used to provide a mapping location of the facility for displaying facility-level emissions data for products such as AirToxScreen. Under the current AERR, the facility-level coordinates serve as a default location for all release points at a facility, and those release point locations are used in air quality modeling that supports EPA’s NAAQS and air toxics programs. Under this proposal, those facility-level locations

would continue to serve as a default for certain small businesses that choose to use the alternative reporting requirements available as part of this proposal.

Many ways exist for interpreting a facility-level coordinate. As a result, States provide various interpretations of the location, which includes geocoded addresses (which results in a coordinate at the roadside) as well as points taken manually from a map. This variability is understandable considering the lack of detail in the current rule. Without a more specific definition, it is difficult for the EPA to obtain quality data to best implement the NEI program.

The EPA also recognizes that a single facility may have many contexts in which a facility-wide coordinate could be used appropriately. Thus, the EPA is considering which terms would best describe the requirements of this subpart, while also allowing for other contexts. Any such term would ideally not conflict with terms that may be used to set geocoded addresses or locations in the context of regulations related to other environmental mediate (e.g., water and solid waste).

Within the NEI program, the facility coordinates are important for two primary reasons: (1) to display the location of the facility on maps for end users and (2) to provide a centroid location that defines a facility-specific quality assurance perimeter. Using the facility coordinates and a facility-specific radius, the EIS can QA release point coordinates to ensure that all such coordinates fall within such a radius. To address these considerations, the EPA is proposing a specific definition of facility coordinates in 40 CFR 51.50 to ensure high quality data for mapping purpose and to allow for the effective implementation of release point coordinates.

The proposed definition reads as follows: “*Facility air centroid coordinates* means a latitude/longitude using the WGS84 or NAD83 datum that maps to or near the centroid of the air emissions activities at a facility.” This definition would allow for separation of this facility-wide coordinate from other coordinates that currently exist outside of the NEI program. In addition to the definition, Table 2a to Appendix A of this subpart would be modified to include the term “facility air centroid coordinates” rather than “latitude and longitude at facility level.”

In addition to defining the term, this proposed change would add the specification of which datum should be used when determining coordinates to report. In past collections, the EPA has received other types of datum without

specification. The previous AERR did not require specific datum or require that a field identifying the datum be included in the report. The EPA identified this error in the data after the data had been reported, rather than before the data was accepted by the EPA from the State. To allow for checking the datum used for the coordinates reported, the EPA proposes to add a new required field for States and owners/operators to fill in when reporting any coordinates (facility air centroid coordinates and release point coordinates).

13. Clarification To Use the Latest Reporting Codes for Electronic Reporting

The EPA has observed that, in past emissions inventory reporting cycles, States may try to report their emissions inventory data using outdated emissions inventory reporting codes, such as SCCs, unit type codes, or control measure codes. When States use outdated codes and report to the EIS, the data records using such codes are rejected by EIS. If States do not review the EIS feedback report notifying them that certain data were rejected, correction of the error(s) is delayed, creating unnecessary additional work for both States and EPA.

To help avoid this problem for States and prevent this problem for owners/operators who may be required to report directly to the EPA under a final version of this proposed action, the EPA proposes to add new requirements about use of the latest EPA codes in submitting emissions inventories. The EPA is proposing to add a statement in 40 CFR 51.5(j) that would require States and owners/operators of point sources reporting directly to the EPA under this subpart to use the most current data reporting codes for electronic reporting that are available at the time of reporting. Reporting codes can change over time, and the EPA will strive to publish the reporting codes that can be used for each inventory year by June 30th of each inventory year. For example, the EPA would plan to publish codes that are to be used for reporting 2024 emissions will be published by June 30, 2024. Since the proposed regulations would require reporting in accordance with the most current codes, entities responsible for reporting should check to see if the EPA has published updated reporting codes before they report.

14. Clarification About Reporting Individual Pollutants or Pollutant Groups

Some HAP pollutants have different degrees of specificity in how they can be reported. For example, mercury could be reported as total mercury compounds (*i.e.*, compounds that include mercury but have other elements that comprise the compound mass), total mercury (*i.e.*, only mercury), or reported separately for elemental gaseous mercury, gaseous divalent mercury, and particulate divalent mercury. In proposing the addition of HAP reporting to the AERR, the EPA is clarifying in this proposed action whether individual pollutants or grouped pollutants should be reported.

EPA has developed experience in collecting HAP information based on the existing voluntary HAP reporting from States. As part of this voluntary program, the EPA has implemented choices for each case where a pollutant group or a specific pollutant could be reported. This choice depends on many factors that change over time, including source measurement methods, available emissions factors, data system capabilities, and QA approaches. To provide a degree of flexibility for the data collection approach, the pollutants that are permitted to be reported are listed via the EIS for State reporters and via CAERS for use by owners/operators. The EPA lists the pollutants that may be reported following the reporting codes schedule described in section IV.I.13 of this preamble.

The EPA is proposing that States or owners/operators would be required to report the most detailed pollutants possible based on the available data (*e.g.*, continuous monitors, source tests, emissions factors), so long as the system allows it to be reported. The pollutants to be reported may be more detailed than when the pollutant group is used to determine if a facility is a point source. For example, in section IV.A.4 of this preamble, the EPA proposes that a facility could be determined to be a point source when the sum of dioxins/furans exceeds a mass-based reporting threshold. The EPA is proposing to require the individual congeners of dioxins/furans to be reported, in a manner similar to how dioxins/furans are reported to TRI, because they have different degrees of toxicity. EPA would use the latest available toxicity information to compute the TEQ of the dioxin/furan group.

To implement this approach, the EPA proposes to add § 51.5(q) to require owners/operators or States reporting on their behalf to report the most detailed pollutants available (*e.g.*, the component

pollutants from Table 1D to Appendix A of this subpart) preferentially over pollutant groups. The specific cases listed are polychlorinated biphenyls, and mercury. This action further proposes that, when the detailed pollutants do not comprise the total mass of the pollutant group, owners/operators report the remaining portion of mass for the pollutant group. In all cases, owners/operators must only report detailed compounds or pollutant groups that are supported by the EPA electronic reporting system.

15. Clarification About How To Report HAP That Are Part of Compounds

For pollutant groups such as “Lead compounds” or “Nickel compounds,” the existing voluntary HAP program has caused confusion about how to report such emissions. This confusion stems from the fact that the HAP portion of such compounds can be a different amount of mass than the total compound, which includes mass of other non-hazardous elements.

To avoid further confusion for States or owners/operators who may report HAP, this action proposes at § 51.5(p) to require that emissions must be reported for the metal portion of the metal group (Pb or Nickel in these examples). This proposed approach is consistent with the guidance that the EPA has provided to States informally when NEI reporting questions have arisen, but this proposed action attempts to formalize the approach. If finalized, this proposed action would further clarify that no adjustment is needed to estimate the metal portion when using emissions factors and source tests, because the source measurement methods used to create emissions factors and source tests already reflect the metal portion of the compounds. Other estimations methods such as material balance or engineering judgement may need to include calculations to adjust the mass to reflect just the toxic portion of the pollutant group. When no composition information is known, the EPA proposes that the entire mass of the material emitted be considered and reported as HAP.

16. Requirement To Include Certain Mobile Sources Within Point Source Reports

The EPA has received questions during past NEI years regarding whether emissions from mobile sources operating within a facility site should be included as emissions from that point source. These mobile sources can include mining equipment and other vehicles and have emissions both from combustion engines and from road dust

generated by the vehicles. To resolve any confusion that may exist, the EPA proposes to include a statement to clarify that such emissions should be included in point source reports.

The EPA further proposes to define which mobile sources should be included to distinguish the mobile sources that are part of the functioning of the facility (which would be included) from vehicles like cargo trains, employees' personal vehicles, or delivery trucks (which would not be included). To accomplish this, the EPA proposes to include a statement in 40 CFR 51.5(b) that would require States and owners/operators to include in their point source reports the emissions from those "mobile sources (excluding aircraft and ground support equipment (GSE)) operating primarily within the facility site boundaries of a point source or multiple adjacent point sources". The EPA additionally proposes that this requirement applies when assessing whether its facility emissions exceed the emissions reporting thresholds in Tables 1A and 1B to Appendix A of this subpart and when submitting point source emissions data under this subpart.

EPA is proposing to exclude aircraft and GSE from 40 CFR 51.5(b) to ensure that the section does not conflict with the proposed approach for States to report data about aircraft and GSE described in section IV.I.1 of this preamble. As previously described, the EPA is proposing that for these sources, the EPA would provide LTO data for States to review, accept, or provide comments about. Based on the LTO data, the EPA would calculate emissions of aircraft and GSE. If those sources were to be also included in 40 CFR 51.5(b) to determine point source status of a facility, then States and owners/operators would need to calculate those emissions independently of EPA. Rather than impose this additional burden, the EPA is proposing to exclude those sources from point source determinations. Other sources at airports such as combustion units and other mobile sources as defined by 40 CFR 51.5(b) should be included in making any determination of point source status for airports.

The proposed inclusion of the "multiple adjacent" phrase exists account for co-located facilities that may share the use of such mobile equipment or vehicles. This part of the proposed requirement is intended to capture emissions from equipment used in the production and operation of a facility, for example, nonroad vehicles and trucks at mines, forklifts, and movable electricity generators. The proposed

requirement is intended to exclude vehicles of employees, temporary or occasional on-site contractors (such as temporary construction, landscapers, or repair services), and other mobile sources operated in many other locations and/or for other purposes.

17. Cross-Program Identifiers Option

During the SBAR panel, small entities asked about whether the EPA would be able to use activity data about industrial throughput that the EPA already collects as part of the Toxic Substances Control Act (TSCA) section 8. They indicated that that activity data could be especially relevant for helping small entities use facility-wide throughputs that could be used to estimate emissions using EPA's emissions estimation tool (see section IV.A.13 of this preamble). During discussions with the panel, the EPA explained that to be able to use such information, the EPA would need to be able to match facilities across the NEI and TSCA programs. As a result of these discussions, the SBAR panel recommended that the EPA take comment on whether small entities would prefer to provide the EPA an additional data element with the TSCA section 8 facility identifier, so that the EPA could use those identifiers to support owners/operators use of the TSCA data, when appropriate, for estimating facility-wide emissions. The EPA expects that if TSCA identifiers were available, then connections between TSCA section 8 data and emissions estimates for AERR could likely be included in the emissions estimation tool and/or the CAERS collection approach.

Based on this recommendation and other information included in this section, the EPA urges small entities and other commenters to provide information about cross-program identifiers. In the case of the TSCA section 8 identifiers, the EPA seeks to clarify our current understanding that the throughput information from TSCA section 8 may not be the relevant throughput for a particular facility, depending on the emissions factors and other information available to EPA, to use to estimate facility-wide air emissions. In addition, the EPA believes that it would be impractical to require reporting of TSCA section 8 facility IDs only in certain circumstances. Thus, if the EPA implemented this approach in any final action, the EPA expects that the TSCA section 8 identifier would be an optional data field that could be used to help small entities estimate emissions only when provided and relevant.

In addition to TSCA section 8 identifiers, the EPA has many air

emissions programs with different identifiers from the facility and other identifiers that have been collected under the AERR for many years and would continue to be collected. Through the CAERS program, the EPA has developed a conceptual model of facilities, by which emissions from each unit, process, and release point within a facility are linked to different air emissions programs. If the detailed data reported under the AERR also had cross-program identifiers, then EPA, States, and other air emissions data users could better understand the relationship among these programs. In some cases, facilities have the same definitions across programs and a facility-level cross-program identifier is sufficient to map across two programs. In other cases, units within a facility as defined by the AERR may be grouped and reported as two separate facilities based on the facility definition of another program. Similarly, emissions processes (e.g., emissions from a primary fuel) might be relevant for reporting separately to one program from a different process at the same unit (e.g., emissions from a secondary fuel, which happens to be biomass).

Based on experience with cross-program mapping for air emissions programs, the EPA has observed that its attempts to map across programs can be error prone. While it is extremely difficult for the EPA to do this mapping, the EPA believes that the owners/operators of facilities are aware of which units and processes within a facility contribute emissions for reporting to each program. Based on discussions with owners/operators and States, the EPA is aware that owners/operators often estimate emissions at a unit or process level before aggregating emissions to a facility level before reporting facility total emissions.

For source test collections involving CEDRI, the EPA is aware that owners/operators perform source tests on a specific unit and/or process with control devices installed. When reporting these source tests however, facilities are not required to use the identifiers that are used for reporting emissions under the AERR. If these identifiers were used, then EPA, States, and owners/operators could easily map the source test data reported to CEDRI to use in calculating emissions when it is appropriate to do so. If the EPA had this information from source test reports, then it could use it in CAERS to provide the source test data to owners/operators using CAERS for calculating their emissions. This would lessen burden on owners/operators (and States adopting CAERS) to meet the

proposed requirement to use source test data when it is available. Under this scenario, CAERS could link to CEDRI and provide the available source test data, and if not selected, require an explanation for why it is not suitable as is also proposed to be required by this action.

As mentioned above, the EPA urges commenters to provide information regarding the advisability of requiring or optionally allowing cross-program identifiers, called the “Cross-Program Identifiers Option” for TSCA section 8, CEDRI, TRI, and GHGRP. If the EPA decided to include such a provision in any final action, the EPA would include additional data elements in Table 1A to Appendix A of this subpart that would allow for owners/operators to report these identifiers. The EPA seeks information about the availability of information, the burden associated with providing such information, whether cross-program identifiers should be required, which programs should be included, and what the EPA can do to encourage such reporting, and other ideas for using cross-program mapping information to reduce burden on owners/operators and States.

18. New Requirements When Using Speciation Profiles To Calculate Emissions

One approach for estimation of emissions that may be used when other approaches are not available includes speciation profiles. A speciation profile is a set of pollutants with associated fractions of some other related or “base” pollutant. For example, a speciation profile could provide a ratio between a benzene and VOC to use to estimate emissions of the benzene when a VOC emission value is available. If the amount of VOC has been computed for a particular source, the fraction of benzene from the speciation profile could be multiplied by the mass of the base VOC emissions to calculate benzene. This calculation would only be appropriate when the speciation profile is relevant for the emissions source. A speciation profile is relevant when it has been compiled based on measurements of sources like the one for which the speciation profile is being applied.

Emissions reporting by States under the current AERR allows States to use speciation profiles to estimate emissions. Since this approach is generally a lower quality method of estimating emissions as compared to source tests, emissions factors, or mass balance approaches, speciation profiles are typically used only if other sources of data are not available.

To address these considerations, the EPA proposes that a State or owner/operator may use the SPECIATE database⁵⁹ or other credible, publicly available speciation profile data to calculate ratios of related pollutants if relevant speciation profiles are available. In addition, to allow the EPA to assess the quality of the information provided, the EPA proposes to collect additional information about the speciation profile. Specifically, the EPA proposes that starting with the 2026 inventory year, when using a speciation profile, a State or owner/operator must provide (1) the speciation factor used, (2) the SPECIATE profile code when a SPECIATE profile is used or in the case of other speciation profiles, the journal citation or reference to a publicly available report, and (3) the actual emissions value and all relevant required fields (e.g., throughput, emissions factor) used for calculating the base pollutant emissions.

This proposed change would require the emissions value and associated required data fields for the base pollutant even if not otherwise required by the AERR. For example, some SPECIATE profiles are based on total organic gases (TOG), but the current AERR does not require TOG reporting. Under this proposed change, however, if a State or owner/operator used a TOG-based speciation profile to estimate and report emissions, then the State or owner/operator would also need to report TOG and the other required elements included in Table 2B to Appendix A of this subpart.

19. New Requirement for Small Entity Type

The EPA has a need to collect and retain information about which facilities are owned by small entities and to be able to distinguish which small entity definitions apply to a facility. As previously described, the EPA expects the proposed revisions to impact small entities, and the degree of that impact will depend on the definition of small entity that the EPA uses in a final action. Irrespective of that definition, the EPA expects States to continue to report emissions for whatever businesses State regulations require, including voluntary reporting of facilities smaller than the reporting thresholds included in this proposal. If these reports included information about which facilities are owned or operated by small entities, the EPA recognizes that such information would

be beneficial for several reasons as follows.

First, generally knowing whether a facility is owned or operated by a small entity would allow the EPA to implement different reporting options for small entities. Without a facility self-identifying as a small entity, the EPA would not be able to provide such options or analyze its data to know which facilities that owners/operators have reported as a facility total versus which have been reported only a single facility, unit, and process. Second, knowing which owners/operators meet the CAA definition of small entities would support implementation of the various expectations of SBEAPs for outreach and support of these businesses. Third, knowing which owners/operators meet the SBA Definition of small entities would allow the EPA to have more information about such entities to more efficiently and effectively analyze whether regulations being developed or revised may have a significant impact on small entities, as is required by the RFA as amended by the SBREFA. Finally, the EPA anticipates interest in reviewing the AERR requirements as they apply to small entities in the future. For example, the EPA may be expected to assess the utility of collecting from small entities. By having this information in the data for any small entities reporting under this proposed action, the EPA would be able perform any such reviews and assessments.

Based on these considerations, the EPA proposes to require reporting of a Small Entity Type at the facility level starting with the 2026 inventory year. This data element would be defined as the small entity definitions that apply to an owner/operator responsible for reporting emissions for a given facility, and it would be reported as an attribute of a facility. We further propose that the available types would be “None,” “CAA,” and “SBA,” where “CAA” refers to the definition of CAA section 507(c) and “SBA” refers to the definition previously described as the SBA Definition Alternative (see section IV.A.14 of this preamble).

J. Nonpoint Activity Data Reporting and Nonpoint Survey

The current AERR requires States to report nonpoint emissions of CAPs in triennial years. Nonpoint emissions can be estimated by multiplying throughput or activity data (e.g., volume of fuel used) by an emissions factor (e.g., quantity of nitrogen dioxide gas produced per unit of fuel) to arrive at an emission value (e.g., amount of NO_x emitting in a year). Nonpoint emissions

⁵⁹ SPECIATE Database available at <https://www.epa.gov/air-emissions-modeling/speciate>.

estimates using emissions factors may also be adjusted by a control factor when the emissions factor does not already account for emissions reductions achieved by owners/operators due to their compliance with regulations. More rarely, nonpoint emissions are estimated by collecting point source data and summing it across counties to report as a county total. In review of the current AERR, the EPA has documented some significant reporting gaps that result from the current requirements. As described below, the EPA is proposing to retain the triennial reporting requirement for nonpoint sources and is proposing to make other changes to reduce burden and improve the reporting process.

One key gap is that some States do not submit any nonpoint emissions data. As part of the normal collaboration with States for the NEI program, some States have explained that they do not have sufficient resources to fulfil all AERR the requirements (*i.e.*, lack of staff or time). Another gap results when States submit incomplete datasets that may exclude whole sectors or parts of sectors. Also, a gap is caused when States do supply nonpoint emissions data but have calculated emissions using an outdated method, a method that State staff cannot explain, or a method without documentation. Another issue is not knowing whether the State is using a different SCC or data category to report emissions; in other words, some emissions may be reported under an SCC that aligns with how the State categorizes a sector, but this may not be the same categorization that the EPA uses based on documented methods.

The current AERR does not have a requirement to submit documentation of emissions estimation methods alongside the data. Thus, when States do submit their emissions estimates, they do not provide documentation unless the EPA requests additional information. The result can be a lengthy correspondence with State staff to try to understand how they estimated emissions. The current AERR includes in 40 CFR 51.15(c) a provision for the EPA to ask States to voluntarily provide supporting information, but the EPA has found this approach to be very inefficient. Data quality issues, completeness problems, or lack of documentation can be found months after the data have been submitted, which has caused the EPA and State to redo work and creates delays in completing the emissions inventory. For the 2020 triennial inventory year, the EPA has developed enhanced nonpoint QA approaches that could further improve quality control of

NEI nonpoint sources with additional adjustments.

Since the last AERR revision in 2015, the EPA has observed the problems just described in recent NEI cycles. While the EPA provides emissions calculation methods with extensive documentation to ensure robust methods and reduce State burden, the current AERR process does not require use of those emissions methods. Further, when a State has emissions calculation methods the State believes represents emissions more accurately than EPA's methods, the EPA wants States to report emissions totals for nonpoint sources; however, emissions data without documentation explaining how it was calculated poses a problem. The EPA needs to obtain documentation about those methods to assess State data in comparison to the EPA methods and to consider it for possible improvements to the EPA methods for future NEI years. Documentation is also needed to support transparency of the data and for reproducibility for subsequent inventory cycles or release of updated activity to improve the estimates.

Further, both the EPA and States benefit from a process that considers the possibility of new information after a State submits and other factors. For example, if a State reports emissions and the EPA uses that data, the State's calculation method could be superseded by improvements in an EPA method. Further, because the EPA uses the NEI to estimate future emissions for use in regulatory development, documentation of State emissions supports the EPA projecting those emissions to the future with full understanding of the origin of those data. Without a clear understanding of State methods, it is difficult for the EPA to ensure emissions projections are consistent with the assumptions a State may make to create their nonpoint emissions submission. These considerations support EPA's interest in collecting documentation of State emissions calculation methods.

States continue to experience resource constraints, and any approach taken by the EPA should consider that such resource constraints could likely continue. At the same time, the nonpoint emissions in the NEI are growing in relative importance to other sources due to regulations that have significantly reduced point source and onroad mobile source emissions over the past 20 years. This is illustrated by research in Los Angeles County, CA, where VOC emissions (among other pollutants) are important precursors to ozone and PM_{2.5} formation. In Los Angeles, mobile-source VOC emissions have decreased, but emissions from

pesticides, coatings, printing inks, adhesives, cleaning agents, and personal care products have decreased less, or in some cases, have increased. In addition, recent studies have shown that the chemical components of the VOC emissions from these and other nonpoint categories can have an outsized influence on both ozone and secondary PM_{2.5} formation. As a result, nonpoint VOC sources have been identified as an increasingly important area of study for contribution to public health harms.⁶⁰ Thus, any adjustment to the AERR for nonpoint sources should support States without sufficient resources as well as promote high-quality and well documented data collection.

Through EPA's work with States, the EPA has continued to refine and publish new nonpoint emissions methods and tools for use by the EPA and States. The EPA provides States with extensive opportunities to give input on the nonpoint emissions methods and incorporates state-provided emissions factors and ideas. As a result of this work and State input, the EPA has developed a nonpoint estimation tool called the Wagon Wheel (WW) as described most recently by the 2020 NEI TSD. The WW Tool provides a central hub of the activity data inputs for estimation of emissions for many nonpoint sectors. It also provides templates for States to submit input activity data and estimation tool assumption parameters, and it calculates emissions using county-specific data and the latest emissions calculation methods. Under the current AERR, States have been using the WW Tool (and its predecessors) voluntarily because it reduces the burden of devising their own calculation methods, tools, and submitting the emissions data to EIS.

The EPA and States have also worked together to create other tools and approaches (*e.g.*, spreadsheets). Primary among these is the oil and gas tool, which the EPA has revised each triennial inventory year since 2011. States and other stakeholders work closely with the EPA and provide comments and input data to improve calculation approaches.

When EPA's tools are used by States, this provides a consistent, documented approach. Also, the burden on States who do not have the resources to develop their own tools is greatly reduced with the WW Tool and other EPA tools. Using these tools reduces the reporting burden on States because the

⁶⁰ McDonald et al. (2018), <https://www.science.org/doi/10.1126/science.aag0524>.

process collects activity data in simpler formats (e.g., text, comma-separated value) than the XML formats required when States report emissions to EIS. In addition, when States provide activity data, the States can upload this directly to the WW Tool to obtain updated emission estimates and provide updated activity data to the EPA to ensure more expedient error corrections in emissions estimates when the EPA reruns these emissions calculation tools.

Sometimes States are ahead of the EPA regarding the latest emissions from certain nonpoint sectors, or the EPA tools do not yet meet a State's needs. For example, some States are not yet able to use the Oil and Gas Tool to estimate emissions from that sector while other States do not believe that the WW Tool represents their residential wood combustion emissions properly. The EPA has observed over the years while collecting data for past inventories that there are cases where States have better local input data and/or emissions calculation methods for sectors that the EPA does not yet have tools for, or others in which EPA's tools are not as appropriate for estimates in the State as the State's own tools. For example, in past inventory years, States have submitted emissions for such categories as cigarette smoke, human perspiration, and industrial composting. In these situations, it is appropriate for States to provide emissions totals. However, the EPA must still be able to access documentation about emissions submissions.

In addition to the WW Tool, input templates, and other calculation tools, the EPA has implemented and used for the 2017 and 2020 triennial years an online nonpoint survey as part of NEI collection, as most recently explain in the 2020 NEI Plan.⁶¹ This "Nonpoint Survey" allows States to indicate their plans for nonpoint sources so that States can communicate their intentions for accepting EPA data or reporting their own data. This survey greatly assists States and the EPA in QA to compare what States submitted to what they intended and to allow States to accept EPA estimates.

As explained in the TSD, the EPA identified about 53,000 instances for which State emissions data submissions for the 2017 triennial inventory were inconsistent with EPA's expectations and were, therefore, removed from the inventory. In these cases, the EPA needed to use its own estimates from the WW Tool and other tools instead of

relying on state-submitted data. The EPA also prefers to use EPA methods because of the consistency and transparency that approach provides but wants to make sure that those methods best represent State activity inputs. An improved process would both recognize the lack of State reporting in many cases as well as steer towards a consistent and transparent approach. Any such process might also allow for the case where States want the EPA to consider their emissions totals even when the calculation method is different from EPA methods and when the State is obligated to report emissions that are not estimated by the available EPA tools.

Based on these considerations, the EPA proposes to include a requirement at § 51.15(d)(2) for States to complete and submit an online survey (the "nonpoint survey") to indicate for which nonpoint sources States intend to: (1) report input data for tools, (2) accept EPA input data, (3) report emissions data, and (4) notify the EPA whether or not to supplement data because the emissions are covered by a different submitted SCC, the State does not have a particular source, or the source is included in a point inventory submission. The EPA further proposes at § 51.15(d)(3)(i) that for nonpoint sources, excluding commercial marine vessels and locomotives, States would be required to report input data for EPA nonpoint tools using the formats provided by EPA. In lieu of reporting tool inputs, the EPA proposes at § 51.15(d)(3)(ii) to allow States to comply with this requirement by reviewing and accepting EPA-provided nonpoint tool inputs.

For nonpoint sources with EPA tools excluding commercial marine vessels and locomotives, the EPA additionally proposes to add an option at § 51.15(d)(3)(iii) that would allow States to optionally report emissions of any pollutants allowed by the EPA electronic reporting system and would require States to provide documentation that describes how the emissions estimates were made and QA steps performed. The EPA intends to evaluate the documentation provided to determine the best approach for ensuring complete data from nonpoint sources that uses sufficiently robust and transparent approaches. If documentation were to be insufficient or approaches of lower quality than the EPA provided approach, then some state-submitted nonpoint data may not be used.

The EPA additionally proposes provisions for commercial marine and locomotive sources. These requirements

differ from those of other nonpoint sources because of processes available to the Agency. In the case of commercial marine vessels, the EPA processes satellite-based data available from the Automatic Identification System (AIS), which is an automatic tracking system that uses transceivers on ships. In the case of locomotives, section IV.I.2 of this preamble describes that the EPA works with rail companies to collect the data about locomotive activity that is also connected to rail yard emissions. To accommodate these special cases, the EPA proposes to add a requirement in § 51.15(d)(4) that States must either (1) report annual actual emissions of required pollutants, (2) provide comment on EPA-provided annual actual emissions data, or (3) accept EPA-provided emissions data.

In addition to those sectors for which the EPA provides tools, the AERR must reflect all nonpoint sources for CAPs to support the need for comprehensive emissions estimates. To address this need, the EPA additionally proposes to add a requirement in § 51.15(d)(5) that, for nonpoint sources without EPA tools, States must report emissions and documentation that describes how the emissions estimates were made and QA steps performed. This proposed requirement would apply for any additional sources not reported under § 51.15(d)(3) or (4) of the proposed regulatory text, not episodic windblown dust as described under § 51.15(d)(7) of the proposed regulatory text, and not such a small source that it meets a *de minimus* standard described under § 51.15(d)(8) of the proposed regulatory text. Paragraphs (7) and (8) would be moved from the current AERR § 51.20(d) to these new paragraphs. The EPA intends to evaluate the documentation provided to determine the best approach for ensuring complete data from nonpoint sources that uses sufficiently robust and transparent approaches. If documentation were to be insufficient, then some state-submitted nonpoint data may not be used.

The EPA has revised the windblown dust exemption from the current AERR at 40 CFR 51.20(d) which states, "[e]pisodic wind-generated particulate matter (PM) emissions from sources that are not major sources may be excluded, for example dust lifted by high winds from natural or tilled soil." The EPA proposes at § 51.15(d)(7) to retain this exemption but remove the limitation of "PM emissions" from the exemption. The EPA proposes this change because the EPA does not need to receive any emissions information about windblown dust, which would also exclude HAP. While the EPA is not proposing to

⁶¹ 2020 NEI Plan, August 2020, U.S. EPA, <https://www.epa.gov/air-emissions-inventories/2020-national-emissions-inventory-nei-plan>.

require HAP from nonpoint sources for other categories, the EPA also prefers States not to voluntarily report HAP from windblown dust currently.

In general, the goal of the documentation will be to replicate the key information provided in the Nonpoint Emissions Method and Operation (NEMO) documents. In some cases that type of documentation would not be relevant because a State nonpoint estimate could be summed from data collected from individual facilities. To define documentation to be reported by States, the EPA would require different information in each of these cases. For the general case of nonpoint emissions computed as a county total, the EPA proposes that for each SCC and pollutant, the State would need to provide any equations used to compute emissions, all input values used for those equations, and all references for those input values (e.g., government agency websites or publications). These input values would need to include activity data, emissions factors, and any other parameters of the equations.

In the case of documentation needed when States provide nonpoint emissions as a summed value from facilities, the EPA proposes to require States to provide a spreadsheet that contains for each facility: the State's facility identifier, a facility name, a facility address, a primary NAICS code, the nonpoint SCC to which the emissions were mapped, the facility emissions for each pollutant, the emissions factor used to compute those emissions (when applicable), any control measure applied to the emissions factor, and the type of control (using EIS control measure codes). The EPA would provide a template for that information for States to use, but States would be free to provide such information in other formats.

In cases where a State is both required to report input data for EPA tools and voluntarily submits emissions data, the State burden would be higher than under the current AERR. The EPA is considering requiring documentation even though the trigger for that requirement is a voluntary reporting of emissions by a State. The EPA is proposing that such additional burden is warranted for the following reasons. First, a State may believe its emissions estimates to be preferable to EPA methods, but the EPA must decide that issue on the merits of the method documentation provided by the State. Second, the EPA would use the required state-provided tool input data to be able to make a fair comparison of EPA's method emissions totals compared to the state-provided emissions totals.

Third, the completion of the Nonpoint Survey would remove confusion from differing SCCs, meaning potential differences in State and EPA categorization of specific sectors could be noted and resolved. Fourth, through discussions with States in past NEI efforts, the EPA realizes that States may not be familiar with the latest approaches and choose to report emissions even if they are unable to find the underlying data that would be needed for complete transparency. Finally, if the State later realizes that its provided emissions totals are in error, or if the EPA revises its calculation method to further improve the emissions estimations in a way the State prefers, then the EPA would already have in hand the necessary EPA tool input data to calculate emissions for the State.

The EPA will QA all state-submitted input data and emissions with associated documentation. Quality assurance will focus on the resulting state-submitted emission estimates compared to EPA input data/methods, if available, and previous state-submitted data, checking for data completeness for pollutants and geographic coverage, and magnitude. The EPA may not use state-submitted input data and/or emissions if it does not pass QA checks, so the EPA can comply with the OAQPS Quality Management Plan.⁶² Therefore, the EPA proposes to add paragraph § 51.15(l) stating that the EPA may elect not to use the state-provided data if it does not pass QA or if a State's documentation does not adequately explain the origin and quality of the submitted data.

K. Nonpoint Year-Specific Data and Timing of Reporting

One key goal for the NEI program is to ensure emissions are accurately reported for the year of the inventory, and an important question for how to achieve that goal is when the submissions should be due. This section discusses the considerations and EPA's proposal for the timing of AERR submissions.

Part of ensuring accurate nonpoint emissions is point-nonpoint reconciliation as previously explained in section IV.I.4, which prevents double counting and can be done with appropriate accuracy only when nonpoint activity data are specific to the inventory year. Furthermore, because the NEI is used as a starting point for SIPs that require the use of "accurate"

data (see CAA section 172(c)(3)), the NEI program goal is consistent with that requirement and the expectation of data users that the emissions reflect the listed year of the inventory. Finally, when the EPA uses the NEI for regulatory actions, it is appropriate for the EPA to follow the Agency's guidance on inventories that emissions reflect the year in which they occurred as best as possible. For these reasons, this action considers how best to achieve year-specific nonpoint emissions inventories.

On the issue of triennial versus annual reporting, the EPA intends to retain the current triennial nonpoint reporting approach for nonpoint sources. The EPA is not yet ready to support annual reporting for nonpoint sources but may be able to do so in the future (in which case we may conduct further rulemaking to require more frequent reporting for nonpoint sources). Additionally, the EPA has successfully used the data from States during triennial years, EPA tools, and data collected from other Federal agencies to estimate emissions on years other than triennial years. By retaining triennial nonpoint reporting, the EPA additionally would not increase burden on States.

The current AERR requires that, for each triennial inventory year, States must report nonpoint emissions by December 31 of the following year. As described in section IV.J of this preamble, this action proposes to change the nonpoint requirement such that a State would: (1) complete a nonpoint survey, (2) provide inputs for sources where EPA tools are available, and (3) report emissions for other nonpoint sources without EPA tools. As also described above, States may (4) voluntarily report emissions for sources with EPA tools and (5) when emissions data are provided, the State must also include documentation. This section proposes when each of these required and optional submissions would be due.

In addition to collection of data, the EPA collaborates on a continuous basis with States to improve nonpoint emissions calculation tools. Based on input from States, peer reviewed literature, and EPA research, the EPA develops NEMO documents for comment by States.⁶³ States can voluntarily comment on these documents over some review period provided by EPA. This work can be done independently of any annual

⁶² U.S. EPA, Office of Air Quality Planning and Standards Quality Management Plan, May 20, 2020, https://www.epa.gov/sites/default/files/2021-05/documents/final_oaqps_qmp_2020-05-20.pdf.

⁶³ The EPA has provided the most recent NEMO documents with the release of its 2017 NEI. These documents are available on the EPA website at https://gaftp.epa.gov/air/nei/2017/doc/supporting_data/nonpoint/.

reporting NEI cycle, but in many cases, new methods are developed in time for their inclusion in a particular inventory reporting year. The EPA has monthly webinars with States to provide many updates including the review and discussion of NEMO documents and new methods.

Nonpoint emissions calculation methods rely on activity data from other Federal agencies and other sources, and these data are released after the current AERR deadline for nonpoint sources. For example, the U.S. Census County Business Patterns dataset is important for nonpoint calculations, but it is released approximately in April, about 16 months after the end of the inventory year. In the current AERR, States must report emissions data 12 months after the end of the inventory year and, thus, would need to use county business pattern data from the prior year to estimate emissions.

While using input data for a different year may be acceptable for some sectors where the input data does not change much, other nonpoint sectors can have significant local and national changes in emissions from year to year (e.g., oil & gas exploration and extraction, residential wood combustion). These sectors vary greatly depending on unpredictable economic, weather, and other unexpected events. To address this year-specific importance for some nonpoint categories and the challenges caused by the current deadlines, the EPA is proposing changes to the timing of nonpoint requirements.

Another factor to consider is a current AERR provision that undermines the argument for using year-specific data. Within the current AERR, § 51.35 provides States directions regarding how to equalize the emission inventory effort from year to year, since a triennial inventory means more effort on every third year. This section explains that States may ease the workload spike by collecting one third of their point sources that are not reported every year (i.e., the sources that are Type B but not Type A) and collect data for one-third of the nonpoint, nonroad mobile, and onroad mobile sources. This section further explains that States must use a consistent approach between the 3 years for whatever source category is collected over 3 years. This section of the current AERR provides a burden equalization approach for States but does not reflect the points made above about the importance of year-specific inventories.

In section IV.G of this preamble, the EPA proposes to require States and owners/operators to use the same criteria each year to determine which point sources should report. This

provision would make the current § 51.35 “burden equalization” approach irrelevant for point sources. In addition, this section has described the importance of having year-specific data for nonpoint sources in some cases. At the time that § 51.35 was originally published, the EPA had a much less robust support system to help States estimate emissions from nonpoint sources. Now, many tools are available for States to estimate nonpoint emissions, and it is important that States all use current methods to do so. With the ongoing development of emissions methods by EPA, allowing a State to make estimates based on an old methodology 2 years before the data are due does not promote the data quality needed for the NEI.

Additionally, the EPA has realized that, even with this burden reduction approach available to States, many States have not met their nonpoint source reporting requirements in recent past NEI years. As a result, the EPA has described in section IV.J of this preamble how States would be able to comply with this proposed action simply by reviewing and accepting EPA-provided activity data. Further, under this proposed action, States would be required to use the emissions calculation methods provided by the WW Tool. None of these provisions would be workable under the current provisions of § 51.35. As a result of these considerations and in addition to the reasons described in section IV.G of this preamble, the EPA proposes to remove the equalization provisions of § 51.35 and add a new set of timing requirements that would allow the EPA to obtain appropriate, year-specific data as needed while still including provisions that spreads out the work for States.

As previously described, nonpoint tool inputs can become available after the current AERR reporting deadline. Depending on the data, they are available to the EPA and States starting approximately 6 months after the end of an inventory year (e.g., June of 2024 for the 2023 inventory year) through October of the second year (e.g., October of 2025 for the 2023 inventory year). As a result, the EPA targets March of the third year after the inventory year for the final NEI nonpoint data (e.g., March 2026 for the 2023 inventory year). Since the EPA does not control the timing of release of that data, the EPA also recognizes the importance of building flexibility into the process.

Based on these considerations, the EPA proposes several changes to the timing of the nonpoint collection. First, this action proposes that States would

complete the nonpoint survey in EIS by 15 months after each triennial inventory year (e.g., March 31, 2025, for the 2023 inventory year). In addition, for any emissions sources without an EPA tool, but not meeting the *de minimis* criteria included in this proposed action, the State would report emissions and documentation by March 31, 15 months after a triennial inventory year. These deadlines and others are summarized below in section IV.S of this preamble.

Second, the EPA proposes to spread out requirements for submission of input data for EPA tools, including the option to review and accept EPA tool inputs. The EPA expects to release draft tool inputs and emissions results on an incremental basis between July after the inventory year (e.g., starting July of 2024 for the 2023 inventory year) and December of the second year after the inventory year (e.g., through December 2025 for the 2023 inventory year). The EPA proposes to add regulatory text stating that the States would have no fewer than 30 days to review, comment, and/or provide revised tool inputs based on the information released by EPA, and that the EPA may allow a longer period for review source categories with more complicated input data or calculation approaches and would notify the States of this when the data are released. To communicate a longer period, the EPA proposes to indicate the period for review to States at the time the data are provided for review. The EPA intends to include this information in its periodic NEI newsletters included on the NEI Sharepoint site.

After receiving the emissions based on EPA methods, States may determine that the EPA tool calculation is insufficient. In this case, the EPA proposes to add regulatory text stating that the States would submit *nonpoint tool inputs* within 30 days of the EPA providing tool inputs to the State, or within the period defined by the EPA at the time the tool inputs are provided to States, whichever is longer. For example, if the EPA released tool input data and draft emissions on August 1 for State review with a 30-day review period (until August 31), States would have until September 30 to review/submit revised tool inputs. Additionally, the EPA proposes to add regulatory text that would set a timeline for States optionally *submitting emissions and the associated documentation* within 60 days of the EPA providing inputs to the State, or within the period defined by the EPA at the time the tool inputs are provided, whichever is longer.

In addition to collection of tool inputs, a key aspect of nonpoint

emissions work with States is the emissions calculation approach, captured in the NEMO documents. While the EPA does not plan to require States to contribute to these documents at this time, it anticipates that many States will continue to do so voluntarily. To accommodate this voluntary State collaboration, each NEI Plan gives States timeframes during which they may provide these voluntary comments so that the emission methods would be ready for use in a triennial inventory. In cases where a State misses these deadlines, the Agency is under no obligation to consider late-filed State comments but rather intends to defer consideration of such late comments into the method improvements that would be done for the next triennial inventory cycle.

Under this proposal, the bulk of State's burden for nonpoint submitting data would occur in the starting 6 months after the triennial inventory year and continuing through the second year after the triennial inventory year. Given this timing, the EPA plans to coordinate the timing of the voluntary State review of emissions methods so that States' work would be done primarily during periods the EPA has proposed to require triennial nonpoint emissions data. For example, for 2023 (the next triennial inventory year), the EPA would plan to support voluntary comments from States on methods between January 2023 and June 2024.

L. Nonpoint Reporting for Tribes and States With Counties Overlapping Indian Country

With this action, the EPA is proposing new requirements that would resolve existing challenges associated with use of nonpoint emissions submitted by tribes and prevent double counting with state-submitted county total emissions. The EPA and States estimate nonpoint emissions data with techniques that use county total activity data from other agencies such as the U.S. Census Bureau. There are two cases that can cause the potential for double counting without the approach that the EPA proposes in this action.

In the simplest case, EPA's nonpoint emissions tools multiply county total activity data with emissions factors to estimate emissions. When counties overlap with Indian country, the tools do not automatically account for the portion of the county that is within Indian country. When States report emissions for areas overlapping an area reported by a tribe, the NEI could potentially double count emissions unless those reporters take additional

steps to adjust the activity data prior to calculating emissions.

The second case can occur when States accept emissions from EPA's tools. In these cases, because EPA's tools include activity for the entire county, double counting would occur when a tribe reports nonpoint emissions data for Indian country overlapping those counties using EPA's estimates. Further, the current AERR does not require activity data for nonpoint categories from tribes that could be used to subtract from the counties' data to avoid double counting. As a result of this complexity, to date the EPA has chosen to use only the State provided nonpoint data when using the NEI as an input for air quality modeling. The EPA prefers and considers it more equitable for tribes to be able to have tribal data used in the same ways as State data.

The current AERR at 40 CFR 51.1 says that “[s]tates must inventory emission sources located on nontribal lands and report this information to EPA.” This is the only reference under the current AERR to the concept of excluding Indian country from emissions estimates. Further, this statement is confusing because, as explained in the preamble to the original AERR (71 FR 69), the term “states” is defined in the AERR as referring to States, locals, or tribes with a TAS agreement. The EPA is proposing at § 51.1(b) language that describes the specific situation in which an Indian Tribe would be required to report under Subpart A of 40 CFR part 51.

In addition to the potential confusion created by the current text of § 51.1, other parts of the current AERR could be read to be inconsistent with § 51.1. First in § 51.25, entitled “What geographic area must my state's inventory cover?”, the current AERR makes no mention of Indian country but rather says “because of the regional nature of these pollutants, your State's inventory must be statewide, regardless of any area's attainment status.” “Statewide” could potentially be read as inclusive of Indian country. In addition, the current version of § 51.15(b)(2) explains that for nonpoint submissions, “states may choose to meet the requirements for some of their nonpoint sources by accepting EPA's estimates for the sources for which the EPA makes calculations.” Given that EPA calculations have not excluded (and are not planned to exclude) Indian country emissions from the emissions that States report, this statement neglects to clarify that a State would need to make an adjustment based on the requirement to exclude Indian country as specified in the current AERR at § 51.1. As a result

of these potentially confusing requirements, the approach taken by States has been inconsistent in submitting emissions data. Under the current AERR, some States exclude Indian country emissions from their emissions while others do not.

With this action, the EPA proposes an updated reporting approach for nonpoint sources with EPA tools such that all agencies (including tribes with TAS status) would report tool inputs, including activity data. For those tribes that would report nonpoint activity data, the EPA would need to have sufficient information from tribes to be able to reconcile the county-total activity with the tribal activity to avoid double counting.

Based on these considerations, the EPA is proposing several revisions intended to ensure clarity for States and tribes. First, the EPA proposes to add paragraph (b) to § 51.1 to clarify that tribes that have obtained TAS status are subject to the AERR to the extent allowed in their TIP, and that, to the extent a tribal government has applied for and received TAS status for air quality control purposes and is subject to the AERR under its TIP, the use of the term “state” in the AERR should be read to include that tribal government.

Additionally, the EPA proposes additional nonpoint requirements to address the issues described in this section. Taken together, these requirements will allow both State/local and tribal nonpoint tool inputs and emissions to avoid double counting and to be used as inputs to air quality modeling. First, the EPA proposes at § 51.15(d)(9) of the proposed regulatory text that a State with counties that overlap Indian country would avoid double counting by excluding the activity and/or emissions associated with Indian country when the Tribe is expected to report emissions. A State would need to become familiar with which of the tribes with Indian country that overlaps a State's counties would be required to report under this proposed action and which tribes intend to voluntarily report. Similarly, tribes can assist in preventing double counting by notifying States of their plans to submit emissions (though the EPA is not proposing that tribes would be required to do so).

Second, the EPA proposes at § 51.15(d)(10) of the proposed regulatory text that tribes meeting the TAS and TIP criteria of the new § 51.1(b) of the proposed regulatory text would be required to report nonpoint tool inputs or emissions from Indian country by reporting those data separately for each portion of a county across which Indian

country boundaries overlap. To assist tribes in making such calculations, the EPA could provide tribes with ratios that they may use for performing these calculations. A tribe meeting the criteria of the proposed § 51.1(b) would be subject to the nonpoint reporting requirements associated with the new § 51.15(d)(3) through (8) of the proposed regulatory text when the tribe has sources that meet the criteria for reporting a nonpoint source (*i.e.*, sources that have the EPA nonpoint tools or are not small enough to meet a *de minimus* percentage of the tribe total emissions). The EPA believes that tribes could use the EPA tools by adjusting the county values included in the default templates to provide tribe-specific activity levels. Similarly, tribes submitting emissions would report those data in association with county boundaries by apportioning the total tribal emissions to each of the county areas overlapping Indian country.

M. Requirements for Prescribed Burning

Recent increases in the frequency of damaging wildfire events underscore the need for improved management schemes that anticipate and consider climate change factors like drought and temperature extremes. Prescribed burning (of forestland, shrubland, grassland, wetlands, wildland urban interfaces (WUIs), and timberland)⁶⁴ is a way to prepare for and mitigate wildfire events and manage grasslands, and many States⁶⁵ have implemented burning programs to improve ecosystem health and reduce chances of catastrophic wildfires. The U.S. Department of Agriculture Forest Service (USFS) Wildfire Crisis Strategy,⁶⁶ published in January 2022, indicates an interest in increasing prescribed burning to treat up to an additional 20 million acres on National Forest System lands and up to an additional 30 million acres of other Federal, State, Tribal, and private lands.⁶⁷ While these prescribed burns

are controlled and limit emissions as compared to wildfires, they still produce significant emissions of CAPs such as PM, VOC, HAP, and carbon dioxide, all of which are important contributors to environmental health risks and climate change. The EPA proposes additional requirements for States to report prescribed burning data and consequently allow the EPA to have access to improved data sources as compared to the data it has been collecting voluntarily under the current AERR.

The EPA currently uses satellite data to identify the locations of fires and uses various techniques and data from other agencies to label fires as wildfires, prescribed fires, or agricultural fires. The EPA has a goal of improving emissions estimates for all types of fires, and this proposal strikes a balance between the information proposed to be required and the burden that will be incurred by the many States that will need to implement new data collection programs. The EPA's experience over the past decade has determined that without more data, it is not possible to accurately differentiate prescribed burning from other types of fires in most States. The satellite data provide estimates of the extent of burning each day but, in many cases, the EPA must assume information about the type of fire, the biomass fuel type, the amount of biomass consumed and other critical parameters. National-level and other data sources are available to identify wildfires, and these allow the EPA to reasonably conclude that other fires are prescribed or agricultural fires. Using these sources of wildfire data has also revealed that the additional fuel and burning data greatly affect and improve the emissions estimates. For prescribed burning, however, there is no central collection of national data, and few States collect the information that the EPA would need to properly label each fire.

Available evidence indicates that wildfire acres burned have increased over time,⁶⁸ which, in turn, has drawn attention to prescribed burns as a mitigating measure.⁶⁹ Thus, the EPA expects that prescribed burning activity will increase, making it important to properly estimate the emission impacts

from these sources. Additionally, new satellites have become available in the last few years that detect many more (and smaller) fire events. As a result, we now have information about more fires and have an opportunity to improve the current approach for estimating emissions from fire events.

While some States currently submit data on prescribed burns voluntarily, there is currently no national minimum approach to ensure collection of information about prescribed burning. While some States have permitting programs for prescribed burning to ensure that the burns do not cause undue impact on communities, most of those programs have not led to collection of data. Many permits may be issued that do not result in a burn and its only possible to determine some aspects of a burn (such as the acres burned) after it occurs. A minimum set of prescribed burning data collected from all States would allow both for higher quality emissions data and more equitable characterization of the emissions that impact downwind communities.

The 2015 AERR eliminated the requirement that States report emissions from wildfires and prescribed fires, which had been required via the 2008 AERR as county totals. At that time, the EPA had believed that the satellite-based approach and other available datasets would be sufficient to properly characterize emissions from these fires. While EPA's expectation has come to pass for wildfire emissions, based on the reasons described above, the satellite-based approach is too uncertain to properly characterize prescribed burning. Further refinement of the wildfire estimation technique will be sought, and EPA encourages voluntary submission of wildfire data such as fuel type and consumption information that provides refinement of these emissions estimates.

The National Interagency Coordination Center (NICC) estimates that between 2009 and 2018, in the United States, on average about 86,300 prescribed fires burned about 3 million acres annually; however, these data are known to be incomplete. The National Prescribed Fire Use Survey Report⁷⁰ is a more complete source for estimating prescribed acres burned nationally, and the 2020 survey puts the national estimate at about 9–10 million acres burned annually. About 75–80 percent of these acres burned are in the eastern

⁶⁴ In this section, the use of the term "prescribed fire" and "prescribed burning" refers to burns that could occur on all of these land types, unless otherwise specified.

⁶⁵ In Section III of this preamble, the EPA has previously defined "States" to mean delegated local agencies and certain tribes.

⁶⁶ U.S. Department of Agriculture, Forest Service, *Confronting the Wildfire Crisis: A Strategy for Protecting Communities and Improving Resilience in America's Forests*, January 2022. See also <https://www.fs.usda.gov/sites/default/files/Confronting-Wildfire-Crisis.pdf>.

⁶⁷ U.S. Department of the Interior, "Infrastructure Investment and Jobs Act, Wildfire Risk Five-Year Monitoring, Maintenance and Treatment Plan," April 2022. See also https://www.doi.gov/sites/doi.gov/files/bil-5-year-wildfire-risk-mmt-plan.04.2022.owf_final_.pdf.

⁶⁸ U.S. EPA, *Climate change indicators: Wildfires*, Figure 5: Change in Annual Burned Acreage by State Between 1984–2001 and 2002–2018. <https://www.epa.gov/climate-indicators/climate-change-indicators-wildfires>.

⁶⁹ Hunter, M. E. and Robles, M. D., *Tamm review: The effects of prescribed fire on wildfire regimes and impacts: A framework for comparison*. Forest Ecology and Management, 475, 118435. <https://www.sciencedirect.com/science/article/pii/S0378112720312044>.

⁷⁰ National Association of State Foresters and the Coalition of Prescribed Fire Councils, 2020 National Prescribed Fire Use Survey Report, December 2020, <https://www.stateforesters.org/newsroom/2020-national-prescribed-fire-use-report/>.

U.S.; the amount of prescribed burning in the western States is small in comparison. The 2018 National Prescribed Fire Use Survey Report provided an estimate of 11.3 million acres treated with prescribed fire in 2017.⁷¹

Other information suggests that even the National Prescribed Fire Use Survey report is incomplete. The 2017 NEI estimate that includes satellite-based observations and excludes wildfires as best as possible put the national prescribed acreage burned for that year at about 14–15 million. While this may be an over-estimate because many of those fire sizes were not documented, the difference in the satellite-based estimate as compared documented fires suggests that the National Prescribed Fire Use Survey may be incomplete. Another challenge in determining whether a fire detection is a wildfire or prescribed fire is that both activities sometimes occur at the same time especially in areas with high use of prescribed fire such as the southeast.

The importance of accurate wildfire and prescribed burning data is

highlighted by the many uses of that data by the EPA and States for air quality management: exceptional event determinations, non-attainment area inventories for PM and ozone, ozone and PM transport analysis, and EPA's air quality modeling to support risk analysis, NAAQS review/risk assessments, and regional haze. In addition, the EPA includes the fire emissions data in emissions trends to provide environmental information for the public and to meet international reporting agreements.

For the 2017 NEI, prescribed fire emissions data (either activity information or emissions) were estimated with voluntary help from 19 State air quality agencies.⁷² A mandatory prescribed burning reporting program would be to the benefit of the many data uses listed above. To assess how a mandatory program might be designed, the EPA is considering what attributes would need to be part of any mandatory prescribed burning reporting program. These attributes are (1) the frequency of reporting, (2) the timing of reporting, (3) the size of burn events to be reported, (4) the type of burn events to be reported, and (5) the minimum

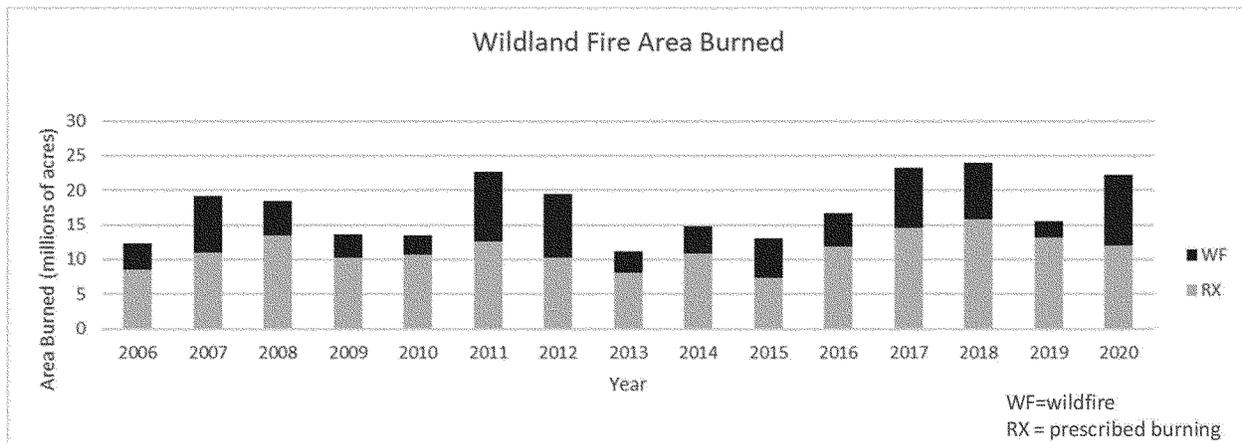
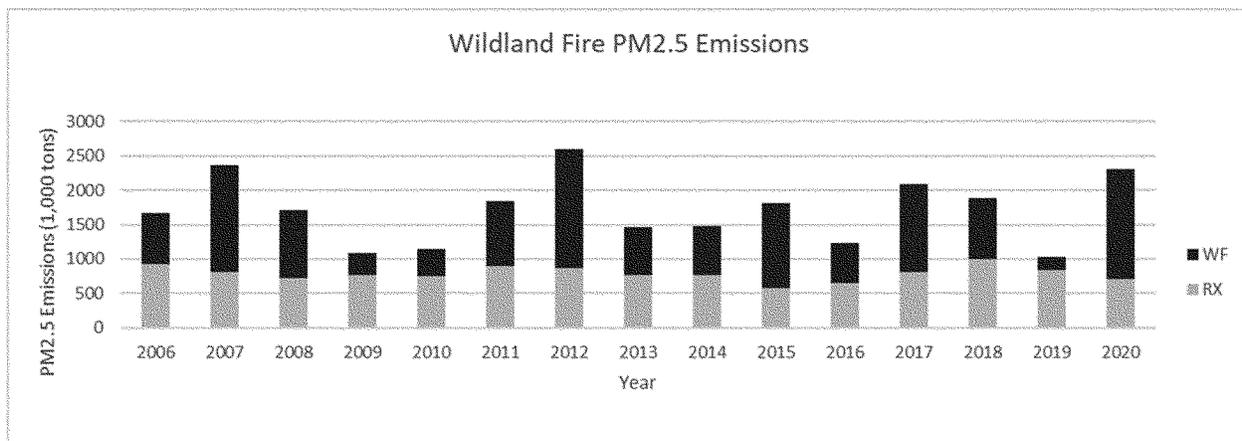
data fields needed to address the current limitations of the voluntary program. Each of these considerations is described here.

The EPA has been estimating daily emissions of prescribed fires for CAPs and HAP every year since 2005. These data inform annual fire trends and the EPA uses the daily event data as input to annual air quality modeling that supports both regulatory and non-regulatory agency priorities. As previously described in section IV.G, regulatory modeling needs may arise for the EPA and for State SIPs for any year and not only triennial inventory years. Thus, the EPA must assume in any policy the same potential need for data for every year. Additionally, existing data shows that prescribed burning acres can vary widely from year to year. As shown in Figure 1a (which is Figure 7–6 of the 2020 NEI TSD), from between 2006 and 2020, prescribed burning acreage ranged from about 7 million acres per year to more than 15 million acres. Similarly, as shown in Figure 1b (which is Figure 7–5 of the 2020 NEI TSD), the PM_{2.5} emissions from prescribed burning ranged from about 600,000 tpy to about 1,000,000 tpy. These ranges suggest sufficient variability from year to year to support annual collection of data.

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⁷¹ National Association of State Foresters and the Coalition of Prescribed Fire Councils, 2018 National Prescribed Fire Use Survey Report, December 2018, <https://www.stateforesters.org/wp-content/uploads/2018/12/2018-Prescribed-Fire-Use-Survey-Report-1.pdf>.

⁷² While EPA received the 2017 NEI data from state air quality agencies, EPA is aware that many of those states have coordinated with their state forestry agencies to provide EPA the data.

Figure 1a: Annual comparison of wildland area burned for the lower 48 States**Figure 1b:** Annual comparison of wildland fire emissions for the lower 48 States

In addition to an annual need for prescribed burning data, the spatial and temporal differences across years should impact a decision on reporting frequency. While grassland prescribed burning tends to occur every year in the same locations, forest prescribed burning usually occurs in different locations because the undergrowth burned in one year is not in need of clearing again the following year. Further, for both grasslands and forest prescribed burning, while the general time periods are similar from year to year in each State, the specific burn timing necessarily varies based on meteorological and air quality considerations each year. Consequently, the variability of the data suggests that collecting it each year is consistent with the nature of the activity which the EPA is seeking to collect data on.

The EPA is considering both the date that States would report data and which inventory year would be the first for any

proposed requirements. For the reporting date, the EPA is aware that State air quality and forestry agencies are in a cycle of managing the current fire season and preparing for the next fire season. In recent years, in some areas, the fire season has become longer and less predictable, which complicates finding an optimal time for any data reporting requirement. In general, however, wildfires tend to occur in the summer and fall as temperatures are high, vegetation dries out from lack of rain, and lightning is more prevalent. Time periods allowed for prescribed burning usually occur outside of the wildfire season, depending on the area. These facts suggest that, while the summer is a busy time because of wildfires, the spring and fall can be a busy time for prescribed burning and that the added workload for any prescribed burn data reporting might, therefore, benefit from a flexible time window during which to report data.

This workload consideration would also need to be balanced with when States could practically complete data collection, QA, and data submission, including any coordination necessary between State air quality and forestry departments. Not only must State coordination internally be considered, but also any coordination needed with the representatives of military bases who are responsible for prescribed burning on those Federal lands. A final relevant factor for a proposed due date is when the EPA would need the data to meet timing objectives for the NEI, allowing enough time for review by data partners at State air quality and forestry departments.

To determine the first year for any requirements to report prescribed fire data, the EPA is considering the extent to which agencies are providing detailed data voluntarily. It is expected that any agency not currently providing voluntary input may not have a program

to collect prescribed burning data after the burn has occurred. In the 2017 and 2020 NEIs, 19 agencies voluntarily participated in providing input to the prescribed burning activity data, which is one of the best participation rates of any triennial NEI years. To aid in deciding on a proposed action and to assess burden, we assumed that 63 State, local, or tribal agencies would need to develop some aspect of a prescribed burning data collection program. We recognize that there are some areas in which prescribed burning does not occur. It is expected that most air agencies (States, locals, or tribes) encompassing areas in which prescribed burning activity occurs may have a permitting program in place from which they could build a data collection program. The EPA urges commenters to provide any additional information about how many State, local, or tribal agencies may be required to report prescribed fire data if the EPA were to

finalize the proposed requirements of this action.

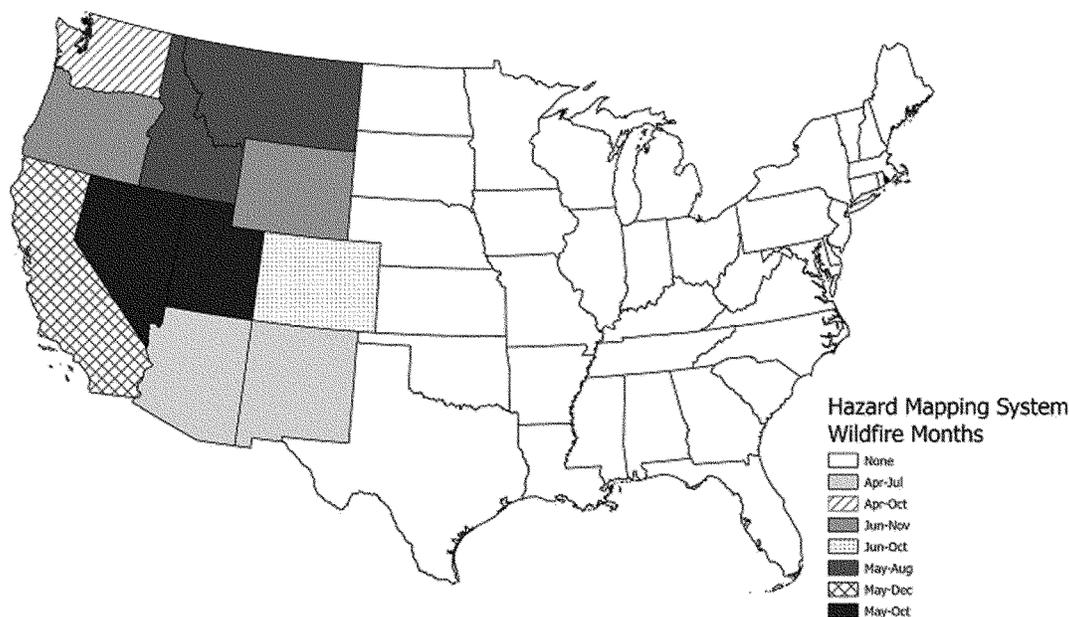
EPA is considering the locations from which fires should be reported and the size of fires to be included. Regarding the locations of fires, the EPA is already able to obtain data needed for some Federal lands from national databases,⁷³ but military prescribed burning is not usually included. Based on analysis of available data sources, prescribed burns on private lands within States and on military lands appear to be the bulk of the data not currently available.

The EPA has analyzed voluntarily reported data from States for the 2017 NEI to consider an acreage reporting threshold above which data would be required to be reported. The higher the acreage reporting threshold, the fewer burns would need to be reported and the lesser the burden on States. In that data, almost 90 percent of the acres from prescribed burns were from events of 50 acres or more, and 95 percent of the acres burned were from burns of 25

acres or more. This finding suggests that setting the reporting threshold at either 50 or 25 acres should capture the bulk of prescribed burning events occurring on State, military and private lands that would be required under this proposal. These data generally do not include prescribed burns on military lands, and thus no information about those is currently available to the EPA for analysis.

The burden consideration should be balanced with the need to characterize satellite-detected burns as being prescribed burns, since otherwise they could be characterized as wildfires and assigned higher emission rates in creating the NEI. Without other information, the NEI approach assigns fires as prescribed burns or wildfires based on the satellite data, the State, and the month; a chart of these assumptions is available in Figure 2 (based on Figure 7–3 of the 2020 NEI TSD). Additional information from States would improve this approach.

Figure 2: 2020 Hazard Mapping System Default Wildfire Months



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The satellite data can also cause uncertainty in the acres burned per fire, without ground-based observation data. The pixel size of the satellite images determines the default size of these

burns, which is from 12 to 62 acres per pixel, depending on where in the U.S. the fire occurs. Emissions from burns smaller than the assumed acres based on pixel size would be overestimated, and

emissions from burns larger than the assumed size would be underestimated.

Additionally, the EPA is aware of various types of prescribe burns: broadcast burns, understory burning/underburning, and pile burns. These

⁷³ Hazard Mapping System (National Oceanic and Atmospheric Administration); Incident Command

System Form 209: Incident Status Summary; Forest Service Activity Tracking System (U.S. Forest

Service); U.S. Fish and Wildland Service fire database.

burn types are defined by the Bureau of Land Management (BLM) on their Prescribed Fire Terminology website.⁷⁴ Broadcast burns are defined as “a prescribed fire ignited in areas with little or no forest canopy present.” Understory burning is defined as “A prescribed fire ignited under the forest canopy that focuses on the consumption of surface fuels but not the overstory vegetation,” and pile burns are defined as “a prescribed fire used to ignite hand or machine piles of cut vegetation resulting from vegetation or fuel management activities.” These burns can have different emission rates and other characteristics, so the EPA would ideally have data from all these fire types and would know the type of each fire reported. Additionally, evidence suggests that in general, broadcast and understory burns impact larger acres per event, because collecting material for pile burns tends to happen over smaller, more manageable areas. Broadcast and understory burning can include cuttings from fuels reduction treatments and logging slash.

Different information is needed about prescribed burns depending on the type of burning. The EPA recognizes that certain data fields needed for pile burns are not available in the current reporting formats. After consideration, the EPA proposes that for broadcast burns and understory burns, the minimum data fields needed are: (1) a unique identifier for the State, (2) the date of the burn, (3) State and county code or tribal code, (4) the centroid of the latitude/longitude coordinates of the burn for that date, (5) SCC (which provides the type of burn), and (6) either the acres burned or the total planned acres and percent burned. Additional data fields would be available for optional reporting, including fuel type, fuel loading per acre, fuel moisture (any or all of 1-hr, 10-hr, 100-hr, and 1000-hr values), emission reduction technique, and burn perimeter geographic information system (GIS) shape data. Emission reduction techniques are smoke management practices that are used by fire managers to reduce air quality impacts from prescribed fire and include burning fewer acres, burning when large woody fuels have a higher fuel moisture content, removing fuels before ignition among other techniques.⁷⁵

⁷⁴ Bureau of Land Management, “Prescribed Burn Terminology,” https://www.blm.gov/or/resources/fire/prescribedburns/burn_terminology.php.

⁷⁵ National Wildfire Coordinating Group, “NWCG Smoke Management Guide for Prescribed Fire,” November 2020, PMS 420–3/NFES 001279, Chapter 4, Section 2, pp. 146–164.

For pile burns for each event, the EPA is considering that the minimum data fields are essentially the same as for broadcast or understory burns, but rather than acres burned (or total planned acres and percent burned) a State would be required to report the number of hand piles per acre and the number of machine piles per acre. In addition, optional data fields for pile burns would include average height and diameter of the piles.

Given these considerations, this action proposes to require that States report data for prescribed burns for certain burns within State boundaries, including burns conducted on state-owned/managed, private, and military lands. This proposed requirement would exclude reporting of burns for which such data are already documented by certain agencies or Federal Land Managers via freely provided Federal databases. This proposed requirement considers that the EPA already has access to prescribed burning data provided by USFS and the Department of the Interior and thus avoids duplication of effort by States by excluding such data from the proposed requirements (however, States are free to report data from Federal lands if they choose to do so). This proposal includes new data formats for reporting prescribing burning activity data.

The EPA additionally proposes that agricultural and land clearance burns be excluded from the prescribed burns required to be reported. To facilitate this exclusion, the EPA proposes to use the definition of prescribed burns defined by 40 CFR 51.301 and proposes a definition of agricultural burns to mean “the use of a prescribed fire to burn crop residue.”

EPA is additionally proposing a requirement that State reports on prescribed burns would be due within 6 months of the end of the inventory year (*i.e.*, the calendar year in which the emissions occurred) starting with the 2026 inventory year; thus, if finalized, prescribed burning data would be due by July 1, 2027, and then every July 1 thereafter. This deadline and others are summarized below in section IV.S. The EPA also proposes a requirement for States to report data for broadcast and understory burns when such burns impact 50 acres or more and to report data for pile burns when biomass is collected from 25 acres or more. Further, the EPA proposes to require States to report for burns with aspects of both broadcast/understory and pile burning that are 25 acres or more and to report each aspect of a burn separately. For all burns, the EPA proposes to require the minimum data

elements previously listed. States would still be able to voluntarily report data about fires smaller than those proposed to be required above.

The EPA also is considering the size of the prescribed burns and believes that it would be possible to calculate the acreage of a prescribed burn in such a way as to avoid additional reporting requirements. Therefore, the EPA is proposing a requirement that, in determining whether a burn must be reported, States would add acres of adjoining parcels of land together when those parcels would be burned on the same day (*e.g.*, if two pile burns were conducted on adjoining parcels in increments of 15 acres on the same day, those burns would be considered as 30 acres and would, under these proposed requirements, be reported together because they would exceed the proposed 25-acre reporting threshold for pile burns). Finally, irrespective of any acreage threshold for mandatory reporting, the EPA intends to retain voluntary reporting for fires of any size or type for both wildfire and prescribed burning, which includes allowing States to report prescribed burns that occurred on Federal lands when they are included in State databases.

One approach to ensure that the EPA has all needed data for prescribed burning would be an effort to consolidate existing data collection from other Federal agencies with State data collection; however, this approach would require additional time, coordination, and agreement with other Federal agencies. Proposing an approach that requires such coordination would likely delay implementation; therefore, in this proposed action, the EPA relies on other Federal agencies continuing to provide such data voluntarily. This proposed approach would allow the EPA to obtain the information currently unavailable (*i.e.*, prescribed burns on state-owned/managed land, private land, and military land) without delaying its collection as would occur if a coordinated state-Federal approach needed to be devised. A similar voluntary approach has been used for point sources, in which the Bureau of Ocean Energy Management voluntarily provides point source emissions data for offshore oil platforms.

The EPA is also considering several alternatives in addition to the preferred alternative requirements described above. In the preferred alternative, the EPA is proposing the 2026 inventory year as the first inventory year to allow States more time to develop a prescribed burning data collection program. These data would be required by July 1, 2027,

and every year thereafter. The EPA requests comment on Alternative M1, which would include all aspects of the preferred alternative but would start the reporting for the 2025 inventory year and data would be due by July 1, 2026, and every year thereafter. The EPA requests comment on Alternative M1 because we recognize the importance of creating this new data flow about prescribed fires as soon as possible. In support of Alternative M1 are several considerations: (1) many States already permit prescribed fires and, therefore, the data collection may be more easily developed building from a permitting program, (2) the regulatory approach for prescribed burning is not on industrial facilities, and thus States may have more flexibility in implementation, and (3) States may want to push forward quickly with collection of this information to better reflect the fire emissions in their State. The EPA urges commenters to provide any additional information for the EPA to consider that would address the challenges and benefits of an earlier start to a prescribed fires requirement.

The EPA is also soliciting comment on Alternative M2, which would provide States more time to implement a prescribed burning reporting requirement. Alternative M2 would include all aspects of the proposed approach but would delay the reporting to start for the 2027 inventory year, with the first collection on July 1, 2028. The primary reason to consider this option is that it provides more time for States to implement the necessary collection. The disadvantage of this approach is that the data are not available sooner when compared to the preferred alternative.

Finally, the EPA is soliciting comment on Alternative M3, which would be significantly different from the proposed requirements above. Rather than collect data on a per-burn basis, Alternative M3 would require States to report the counties, dates, and/or months in which prescribed burns occurred. With Alternative M3, the EPA would use the satellite detection information along with the additional information from States such as comprehensive ground-based wildfire activity to improve EPA's assumptions about which fires are prescribed burns. Fires identified by satellite would be mapped to the counties, dates, and/or months provided by States to better determine whether a fire is a prescribed burn or a wildfire and to allow the EPA to use the most appropriate emissions factors to estimate emissions. The primary advantage of Alternative M3 over the preferred alternative is that it

lowers the burden on States and could presumably be implemented more quickly. If the EPA were to select Alternative M3 (either alone or in combination with one of the other alternative above), the EPA could implement such a requirement as early as the 2024 inventory year, with the same July 1 deadline as described above for the preferred alternative. The disadvantage of Alternative M3 is that it does not include information about the actual size or type of each burn, which would allow for improved emissions estimates. For example, the number of acres burned would continue to be estimated based on the pixel size, which as previously described can overestimate or underestimate the area burned and the emissions.

N. Revisions to Requirements for Agricultural Fires and Optional Reporting for Wildfires

Agricultural burning is an important source of emissions at the regional scale and poses a unique challenge on the days in which burns occur. The current AERR collects data on emissions of agricultural burning from States as a nonpoint source (*i.e.*, annual total emissions by county and SCC). However, the day-specific nature of agricultural burning can be critical because it can impact local air quality on specific days and could contribute to regional haze or other episodic pollutant problems in urban and rural environments. As a result of this difference between the data collected from States and the timescale on which the emissions occur, the EPA has concluded that the current AERR requirements are insufficient to fully understand the impact of those emissions. In considering improvements to the AERR, the EPA has explored how to best gather information on agricultural burning emissions.

The EPA has developed a method to devise day-specific agricultural burning emissions. This approach does not rely on state-submitted data but can benefit from State input. The EPA is considering that the availability of this method to calculate day-specific fires could provide useful data without burdening States.

The idea of day-specific agricultural burning was received as part of comments during the public review of the 2013 AERR proposed rule.⁷⁶ The EPA's response to those comments stated, "[t]he the EPA disagrees with this comment because the lower

emissions associated with agricultural fires do not necessitate having the fires as daily events."⁷⁷ However, since the AERR was finalized in 2015, the EPA continued to explore the possible impacts of agricultural burning events and has determined that such events could, under the right conditions, have a significant enough impact on downwind air quality that a day-specific approach could be warranted.

Under the current AERR and for the 2017 NEI, six States and four tribes submitted nonpoint, annual total emissions of agricultural fires. To use these emissions for air quality modeling, the EPA uses its own day-specific estimates to apportion the state-submitted nonpoint data to days. This process can lead to errors when compared with using day-specific "event" data, as is done for wildfires and prescribed burning. The remaining State, local, and tribal agencies either notified the EPA that they excepted EPA agricultural fire emissions, or they were silent on this topic. This information suggests that most States support EPA's agricultural fires method and would not be impacted by any changes made to reporting requirements.

Based on these considerations, the EPA proposes to add a new subparagraph § 51.15(h) in the proposed regulatory text that would specify that when States report agricultural burning emissions, the data would need to be reported in the same event-based data format as is used for prescribed burning. Furthermore, this action allows for the EPA to continue to provide the agricultural fires as day-specific data for States to review, comment, or revise event-based submissions. This proposed revision would take effect starting with the 2023 inventory year.

The current AERR allows for voluntary reporting by States of wildfire emissions. Rather than reporting emissions, most States have reviewed and commented on EPA's activity data compiled from national databases in conjunction with satellite data. To formalize that approach, the EPA proposes that States could voluntarily review and comment on EPA-provided wildfire activity and emissions data. In addition, the EPA proposes that a State may report wildfire timing and activity data using the same event-based data format as is used for prescribed burning.

O. Revisions for Onroad and Nonroad Emissions Reporting for California

The EPA approves onroad mobile models for California for transportation

⁷⁶ Comments submitted by Washington Department of Ecology, see docket entry EPA-HQ-OAR-2004-0489-0066.

⁷⁷ See "AERR Response to Comment document" see docket entry EPA-HQ-OAR-2004-0489-0077.

conformity purposes and for use in SIPs. For the current AERR, California is already required to report emissions from onroad mobile sources rather than report MOVES inputs. While there is no EPA-approved nonroad model, California has its own state-specific model. The current AERR requirements, however, have limitations on two points that the EPA has reconsidered in developing this proposed action.

First, the current AERR does not specify what version of the California onroad mobile model should be used when reporting to EPA, nor what pollutants should be reported for onroad and nonroad mobile sources. In reevaluating the existing requirements, the EPA is proposing new language that would specify using an approved version of the California onroad mobile model. This would ensure data quality and that the latest methods are used, which would be consistent with EPA's use of the latest version of MOVES for other States. In addition, the EPA proposes that this subpart requires the same CAPs from California as States.

Second, the existing requirements cause a limitation in EPA's understanding of how California has applied its model to estimate emissions. Since there is no requirement to provide documentation, there is no way for the EPA to provide transparency for NEI users about the emissions data or QA measures that have been taken.

Based on these considerations, the EPA proposes to add a new § 51.15(e)(3) in the proposed regulatory text to specify that the EPA would retain the existing approach of requiring California to report CAP emissions from onroad and nonroad sources. The EPA additionally proposes to include three new requirements to this subpart to address the issues identified during EPA's review.

First, to resolve the question of the latest version of the onroad mobile model, the EPA proposes to add a new § 51.15(m) in the proposed regulatory text that would require California to use the latest model version approved by the EPA as of January 1 of the emissions inventory year and may optionally use a newer approved model. For example, the onroad model approved as of January 1, 2023, should be used to estimate and report emissions to meet the proposed requirements in the new subparagraph § 51.15(e)(3) of the proposed regulatory text for the 2023 reporting year, or the State could optionally choose to use a model approved by the EPA after that date.

Second, to resolve the question of which pollutants should be reported, the EPA proposes to add a new

subparagraph § 51.15(e)(3)(i) in the proposed regulatory text that would require California to report emissions values for the same pollutants estimated by the EPA model for criteria pollutants and precursors. Additionally, this action proposes to add a new subparagraph § 51.15(e)(3)(iii) that would specify that California may voluntarily submit emissions of HAP, greenhouse gases, or other pollutants, consistent with those pollutants that are estimated by the MOVES model. If California does not report these data, the EPA intends to use CAP/HAP ratios consistent with the MOVES model and if California does report such emissions, the EPA will evaluate the data and documentation to decide which approach would be to the best advantage for the purposes of the NEI.

Third, to resolve the lack of documentation about California's onroad and nonroad mobile emissions, the EPA proposes to add a new subparagraph § 51.15(e)(3)(ii) in the proposed regulatory text that would require California to submit documentation that describes the model inputs, use of the model and any options selected, post-processing steps, and the QA performed to estimate the emissions for each county and SCC. This proposed requirement would allow commensurate documentation, quality review, and transparency for California's onroad and nonroad emissions as exists for mobile sources in the NEI for other States. The EPA intends to evaluate the documentation provided by California, particularly for HAP, and determine the best approach for ensuring complete HAP data from mobile sources that uses sufficiently robust and transparent approaches.

P. Clarifications for Reporting Emission Model Inputs for Onroad and Nonroad Sources

The current version of the AERR requires States, except for California, to report MOVES model inputs for onroad and nonroad sources or to accept EPA-provided emissions data. The EPA has reviewed the current process and is aware that States may have access to better data than the EPA can obtain on its own, for example, to vehicle registration data and inspection and maintained program data maintained by States that are not available in any national databases (except as collected under this subpart). The EPA recognizes that the current AERR is not specific about which parts of the MOVES model inputs are most critical or whether there are some parts of those inputs that the EPA would not use. Additional clarification about which MOVES

inputs are the most important could encourage States to submit at least that minimum amount of data and could also help to avoid misunderstandings regarding which data elements the EPA does not intend to use.

In addition, the current AERR does not specify a mechanism by which States may express their review and acceptance of EPA-provided MOVES inputs and emissions. Like nonpoint sources as described above, such a mechanism would be useful to allow the EPA to develop a formal record of States' choices about submitting model inputs or accepting EPA inputs and emissions.

Furthermore, some States do not notify the EPA of their acceptance of MOVES inputs or emissions. While the EPA might simply assume that no notification means that States do accept it, such an approach does not create a clear record for the EPA if disputes in emissions data arise later. Resolving this limitation of the current process would avoid possible conflicts in the future.

While many States submit MOVES inputs, some States still do not. Section 5.5 (Table 5–4) of the 2020 NEI TSD describes that 28 States, including the District of Columbia, and 5 local agencies provided MOVES inputs, out of 82 total States and local agencies reporting. Furthermore, different agencies provided different degrees of input, suggesting that an approach to clarify the most important data formally with this action could be useful to agencies seeking to prioritize their efforts. While there are many separate inputs listed in the 2020 NEI TSD, just a handful of these are most important to receive from States.

To ensure more data provision by States and avoid confusion, the EPA proposes to list the minimal MOVES input requirements. Specifically, the new § 51.15(e)(1) included in the proposed regulatory text would require that the minimum requirements for States to provide are: (1) a county database checklist, (2) vehicle miles travelled by county and road type, and (3) vehicle population by county, vehicle type, fuel type, and age.

Further, this action proposes to clarify with the new § 51.15(e)(2) in the proposed regulatory text that if a State has relevant data for the inventory year, States may optionally provide inputs to the latest EPA-developed mobile emissions model for the following data: (1) hourly average speed distribution by vehicle type, ideally different for weekday and weekend (distance traveled in miles divided by the time in hours), (2) vehicle age distribution, (3) inspection and maintenance program

information, and (4) documentation that describes how model inputs were created and the QA steps performed. The intent of listing out these optional MOVES inputs is to explicitly exclude those MOVES inputs that the EPA does not intend to use, which are fuel data and meteorological data. Any fuel data that States would like the EPA to consider should be incorporated into the default MOVES database. If available, States may optionally send fuel data to the EPA at mobile@epa.gov.

As noted above, some States do not notify the EPA of their acceptance of EPA-provided MOVES inputs and emissions. To address this issue, the EPA is proposing a more formal approach in future inventory years. If a State were to not respond using the standard approach provided, the EPA could follow up with the State to notify them of the compliance concerns and allow the State the opportunity to comply with the AERR.

To address this issue, the EPA proposes to add a new subparagraph § 51.15(e)(4) in the proposed regulatory text to clarify that States other than California may, in lieu of submitting any data, review and accept existing the EPA model inputs and emission estimates. The EPA further proposes in the paragraph that States would be required to use an electronic data collection approach provided by the EPA to review, comment on, and accept EPA model inputs and emission estimates. The approach that the EPA would implement to support that proposed requirement would be in EIS like the Nonpoint Survey described in section IV.J of this preamble or an approach to upload data files and enter data on a shared folder such as Sharepoint. This goal with these proposed provisions is to achieve the consistency needed for the Agency to avoid the potential problems created under the current less specific approach.

Q. Definition of Actual Emissions

The term “actual emissions” is used in CAA sections 112, 172, and 182 among others, but no definition is provided of that term by the Act. In CAA section 112(a), the term is used to define the terms “modification,” “offsets,” and “early reduction.” In CAA section 172(c)(3) and section 182(a)(1), the term is used to describe the emissions that must be reported by States as part of SIPs. Because this subpart implements aspects of the Act for emissions reporting to EPA, a definition of this term that is appropriate for reporting of emissions would be useful to ensure clarity about

which emissions are required to be reported. The EPA recognizes that the phrase “actual emissions” is used in other contexts within 40 CFR part 51 that are distinct from the emissions data reporting context. The proposed definition would only apply to the provisions of the AERR; therefore, it would affect both annual emissions data reporting as well as emissions included in SIP inventories.

The current AERR regulations in Subpart A of Part 51 have not previously provided a definition of “actual emissions” for use in implementing this subpart. A lack of a definition has caused confusion because emissions generating activities can be divided into categories, including emissions occurring during (1) steady State operating conditions, (2) periods of process startup or shutdown, and (3) periods of process malfunction. This confusion has prompted the need for the EPA to clarify.

To attempt to clarify what should be reported for SIP purposes, the EPA has previously included a definition of “actual emissions” through the guidance document “*Emissions Inventory Guidance for Implementation of Ozone and Particulate Matter National Ambient Air Quality Standards (NAAQS) and Regional Haze Regulations.*”⁷⁸ The guidance definition States, “actual emissions means the emissions of a pollutant from an affected source determined by taking into account actual emission rates associated with normal source operation and actual or representative production rates (*i.e.*, capacity utilization and hours of operation) (40 CFR 51.491). This is in contrast with potential emissions or allowable emissions. These actual emissions should include emissions of a pollutant that occur during periods of startup, shutdown, and malfunction.”

The EPA is also considering the connection between the term actual emissions and duration of the emissions for the NEI (annual) versus for SIPs that can include other durations (*e.g.*, ozone-season-weekday for the ozone NAAQS or average season day for the 24-hour PM_{2.5} NAAQS). To support all EPA functions that use data collected by the AERR, the term actual emissions in the context of the AERR must reflect the types of activities relevant to include in an emission value rather than whether that emissions value is annual or some other temporal resolution like average day. Thus, an ideal definition for the

AERR would allow for the annual NEI reporting to refer to “annual actual emissions” while an ozone SIP requirement ozone-summer-weekday emissions could also be “actual emissions” associated with summer weekdays.

Based on these considerations, the EPA proposes to add a definition of “actual emissions” within § 51.50 of this subpart. The proposed definition states, “*Actual emissions*” means, for the purposes of this subpart, the emissions of a pollutant from a source that is required to be reported under this rule, determined by accounting for actual emission rates associated with normal source operation and actual or representative production rates (*i.e.*, capacity utilization and hours of operation). Actual emissions include emissions of a pollutant that occur during periods of startup, shutdown, and may include malfunctions. Since malfunctions are, by nature, unpredictable and given the myriad different types of malfunctions that can occur, malfunction emissions are difficult to estimate. However, to the extent that malfunctions become a regular and predictable event, then such emissions should be quantified with regular and predictable emissions and included in actual emissions.”

To the extent that malfunction emissions can be included in the emissions reported under the AERR, the EPA is additionally considering that emissions from malfunctions may need to have special treatment for use in both the NEI and SIP contexts. For example, when the emissions are used for air quality modeling for model performance evaluation, it would be critical to have the time span during which malfunction-related emissions occurred. If malfunction emissions were included as a single value summed with other emissions, then the emissions would not exhibit the hourly or daily peaks in emissions associated with the malfunction. This would not only miss those peak impacts during the times of the malfunction, but also could increase emissions across the entire year to a level not useful for model performance evaluation. Another example is that for projected inventories required for the nonattainment area for the PM_{2.5} SIP or for ozone and PM_{2.5} modeled attainment demonstrations, including malfunctions from the base year in future year modeling may not result in the best policy outcomes. This is because malfunctions, if they occurred in the future year, would undoubtedly be different in both timing and magnitude. Since malfunctions by definition are not

⁷⁸ Emissions Inventory Guidance for Implementation of Ozone and Particulate Matter National Ambient Air Quality Standards (NAAQS) and Regional Haze Regulations, U.S. EPA, EPA-454/B-17-002, May 2017.

predictable, including them in future year modeling could be problematic.

The EPA is soliciting comment on a possible additional requirement that may be included in any final action on this proposal. This additional "Malfunction Option" requirement would be for States and owners/operators to report their malfunction emissions as a separate value from the other emissions. This would allow for consistency across NEI, SIPs, and all States to ensure that both malfunction emissions are included (based on the proposed definition), but also the malfunction emissions do not adversely impact the use of the emissions data for some purposes such as modeling and projected inventories. If the EPA were to require the Malfunction Option in the final rule, States and owners/operators would need to report the approximate date of occurrence, the approximate number of days of the occurrence (if more than one day), and the estimated emissions associated with each malfunction. These additional fields would be reported as associated with the affected units and processes (when applicable) and release points. The EPA proposes that reporters would assign each emissions value with an emissions operating type code that denotes the emissions as being associated with a malfunction. In addition, the EPA intends to adjust the available codes in the EIS (and CAERS) by retiring the existing codes and creating codes for routine (steady-state and startup/shutdown), malfunction, and startup/shutdown. Under this proposed requirement, the routine value would always be required (and as described above, would be expected to include startup/shutdown). The malfunction value would be required in the event of a malfunction. The startup/shutdown value would be an optional value that a State or owner/operator could provide to give additional information about the startup/shutdown portion of the routine emissions.

EPA is additionally considering an alternative implementation of the Malfunction Option. In this alternative implementation, rather than requiring approximate date, approximate duration, and associated emissions, owners/operators would only need to report the annual total emissions and the emissions operating type code for all malfunctions that occurred each year.

R. Provisions for State Implementation Plans

To promote a consistent approach to emissions inventory data collection from States, portions of 40 CFR part 51 that address SIP requirements reference

the current AERR when addressing SIP inventory requirements. Within Part 51, Subparts G, P, X, Z, AA, and CC all reference the AERR. The EPA has reviewed these references to the AERR to ensure that the changes proposed to the AERR do not require changes to those other subparts. The EPA determined that no such changes to these other subparts were necessary. However, the EPA did identify certain aspects of the current AERR and proposed AERR revisions that could cause confusion for SIP inventory requirements. As a result, the EPA is proposing additional revisions within the AERR to prevent such confusion, and these changes relate to three considerations: (1) the definition of point sources, (2) the level of detail required for emission inventories, and (3) the timing of the triennial NEI. Each of these considerations is handled separately in the paragraphs below.

1. Point Source Thresholds

Subpart G refers to the AERR point source definition directly or indirectly at § 51.122(g); Subpart X at § 51.915; Subpart Z at § 51.1008(a)(1), (a)(2) and (b)(1); Subpart AA at § 51.1115(d) and (e), and Subpart CC at § 51.1315(d) and (e). Subpart G directs States to submit a statewide NO_x emissions inventory and, in doing so, to use the AERR point source definition. The ozone implementation rules (Subparts X, AA, and CC) require States to report point sources for the base year inventory for the nonattainment area using the AERR point source definition. Finally, the PM implementation rule of Subpart Z directs States to use the AERR point source definition to determine point sources, which applies for both the base year inventory and for the attainment projected inventory for the nonattainment area.

In referencing the AERR, the SIP inventory requirements do not mention specific pollutants for which the AERR point source definition (which uses reporting thresholds for all CAPs) should be used. For example, the ozone implementation rules' inventory requirements rely on CAA section 172(c)(3), which requires emissions of "the relevant pollutant or pollutants" when preparing nonattainment SIP inventories for ozone. In the case of ozone, these relevant pollutants are NO_x and VOC, but the references from the ozone SIP requirement rules to the AERR are not specific to these pollutants. Thus, under the current approach, one could incorrectly assume that all AERR point sources defined with all CAP PTE reporting thresholds would need to be treated as point

sources for an ozone SIP, irrespective of the level of NO_x and VOC at those sources. This proposal clarifies that only those sources with NO_x or VOC emissions exceeding the AERR point source PTE reporting thresholds would be required to be reported as point sources in an ozone SIP. Similarly, this proposal would include similar clarifications for PM_{2.5} and its precursors when preparing nonattainment SIP inventories for PM_{2.5}. In addition, the EPA intends for the addition to the point source definition included in this proposal based on HAP should not impact the point source definition for SIPs.

To ensure no change to the other subparts that refer to the AERR's point source requirements, the EPA proposes to revise § 51.10 of this subpart by adding paragraph (b) to list Part 51 Subparts G, X, Z, AA, and CC and specify the parts of the point source definition that are applicable to each. Specifically, for Subpart G, the EPA proposes that only the NO_x reporting threshold of the proposed Table 1A to Appendix A of this subpart would be relevant. For ozone implementation under Subparts X, AA, and CC, the EPA proposes that the NO_x and VOC reporting thresholds of the proposed Table 1A to Appendix A of this subpart would be relevant. For PM implementation under Subpart Z, the EPA proposes that the NO_x, VOC, SO₂, NH₃, PM_{2.5}, and PM₁₀ reporting thresholds of the proposed Table 1A to Appendix A of this subpart would be relevant.

2. Detail Required by Emission Inventory Provisions of SIP Implementation Rules

In addition to the point source definition referenced throughout Part 51, the SIP requirements within Part 51 refer to the AERR by requiring that the detail of the emissions inventory under those subparts "shall be consistent with the data elements required by 40 CFR part 51, subpart A" (see 40 CFR 51.122(g), § 51.915, § 51.1008 (a)(1)(vi), § 51.1115(e), and § 51.1315(e)). Several revisions are being proposed by this action that would impact the "detail of the emissions inventory," so additional information has been included in this proposed action to clarify which changes do not apply to the SIP inventory requirements.

The proposed revisions to this subpart for State requirements regarding the "detail of the emissions inventory" have been described above and are summarized here to provide clarity about which changes would need to be considered when interpreting the Part

51 references to the AERR. Table 4 below lists the proposed changes to relevant requirements of action in the left column and how the EPA proposes that they would or would not impact the “detail of the emission inventory” requirement included in the SIP inventory requirements.

TABLE 4—IMPACTS OF PROPOSED STATE REPORTING REQUIREMENTS ON 40 CFR SUBPARTS G, X, Z, AA, AND CC

| | Proposed new or revised State reporting requirement for the AERR | Impact of proposed requirement on 40 CFR subparts G, X, Z, AA, and CC? (Yes/No) |
|----|---|---|
| 1 | Requirement to report intermittent electricity generation fuel use (section IV.D of this preamble). | No: Does not change emissions required to be reported under these subparts. Emissions (but not daily activity data) from intermittent electricity generation sources would continue to be required to be included in SIP inventories. The proposed AERR revisions improve States’ ability to gather the data they need to estimate and consider these emissions in SIPs. |
| 2 | Requirements to use source test data when available, indicate why it is not used, and otherwise use best available emissions estimation method (sections IV.I.6 and IV.I.7 of this preamble). | Yes: Point source emissions would need to be estimated as proposed in new § 51.5(a) through (d) of the proposed regulatory text. |
| 3 | Additional required point source data fields (sections IV.E, IV.I.3, IV.I.4, IV.I.5, IV.I.8, IV.I.10, IV.I.11, IV.I.12, and IV.I.16 of this preamble). | Yes: Point source inventories developed and submitted under these subparts would need to include additional data fields. See new § 51.15(j)(1) and § 51.40(b) of the proposed regulatory text. |
| 4 | More specific airport and rail yard requirements and implementation options (sections IV.I.1 and IV.I.2 of this preamble). | No: Airport and rail yard emissions are still required as point sources if those facilities exceed the point source reporting thresholds in Table 1A to Appendix A of this subpart. See new § 51.15(j)(1) of the proposed regulatory text. |
| 5 | Requirement to complete an online nonpoint survey (section IV.J of this preamble). | No: Only relevant for NEI process and not for SIPs. See New § 51.15 and § 51.15(j)(2) of the proposed regulatory text. |
| 6 | Requirement to report nonpoint activity data and optionally report emissions data for some emissions sectors, including an option to review and accept EPA-provided data to comply (section IV.J of this preamble). | No: Nonpoint emissions are still required. See new § 51.15 and § 51.15(j)(2) of the proposed regulatory text. |
| 7 | Requirement for documentation when nonpoint emissions are reported (section IV.J of this preamble). | No: Nonpoint emissions are still required and no additional documentation requirement. See new § 51.15 and § 51.15(j)(2) of the proposed regulatory text. |
| 8 | Requirement for documentation when onroad and nonroad emissions are reported by California or by other States when they optionally provide emissions in addition to MOVES inputs (section IV.O of this preamble). | No: Onroad and nonroad emissions are still required and no additional documentation requirement. See new § 51.15 and § 51.15(j)(3) of the proposed regulatory text. |
| 9 | Specific approach for reporting nonpoint activity data and emissions when Indian country boundaries overlap with county boundaries (section IV.L of this preamble). | Yes (for States overlapping tribes that have emissions inventory reporting obligations): Clarifies how States and tribes should report nonpoint, onroad, and nonroad emissions when both the State and the tribe have implementation planning authority within a nonattainment area. See new § 51.15 and § 51.15(j) paragraphs (2)(iv) and (3)(ii) of the proposed regulatory text. |
| 10 | Requirement to report prescribed burning activity data (section IV.M of this preamble). | No: Prescribed fire emissions are still required. See new § 51.15 and § 51.15(j)(2)(ii) of the proposed regulatory text. |
| 11 | Change to make agricultural burning optional and submitted as an event source (section IV.N of this preamble). | No: Agricultural burning emissions are still required as a nonpoint source. See new § 51.15 and § 51.15(j)(2)(ii) of the proposed regulatory text. |

As shown in the table above, only three of the proposed changes for State annual or triennial reporting under this action impact the requirements of Part 51 Subparts G, X, Z, AA, and CC. The three that do impact the requirements help with resolving ongoing nonattainment emissions data challenges, so it is appropriate for these subparts to continue to refer to the AERR as revised.

For the proposed requirement 1 in Table 4, more completely described in section IV.D of this preamble, the proposed change to the AERR has a positive impact on emissions data that would be available to the State after implementing the provisions of this

action. This proposed action facilitates activity data collection from small generating units as an annual requirement, which would allow States with small generating units operating to offset or meet peak electricity demand to have the data that they need to better reflect emissions from such sources in their planning inventories for SIPs.

The proposed set of requirements listed as item 2 in Table 5 specifies data quality requirements for calculating and reporting emissions for point sources. These are described more completely in sections IV.I.6 and IV.I.7 of this preamble. If these proposed requirements were finalized, point sources reporting CAP emissions to

States for both annual emissions reporting to the EPA and SIP purposes would need to meet new data quality requirements.

The proposed requirement 3 in Table 4 is a collection of specific new data fields that are more completely described in section IV.I of this preamble and the proposed Table 2A to Appendix A of this subpart. 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, this

action 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.

Finally, the proposed requirement 9 of proposed Table 4 is fully described in section IV.L of this preamble addresses an existing challenge for both the NEI and SIP planning inventories. As previously described, a clear approach for States and tribes to share reporting of county total emissions data has not been available. When both a State and an Indian Tribe share implementation planning authority for a nonattainment area, this action proposes a new requirement for how States and tribes (or the EPA on their behalf) should develop and report nonpoint, onroad, and nonroad emissions. As proposed in new paragraph § 51.15(j), subparagraphs (2)(iv) and (3)(ii) of the proposed regulatory text, the approach would apply the same technique described for nonpoint activity and emissions for triennial reporting to the emissions reporting for the nonattainment area needed for SIPs. To be clear, this situation would arise if the nonattainment area included some lands that fell within the geographic scope of the State's implementation planning authority as well as some lands within the geographic scope of the tribe's implementation planning authority in accordance with TAS for that tribe.

In evaluating the connection between the elements required to be reported under the AERR and the elements required to be provided in SIP submissions pursuant to other Part 51 subparts that generally reference the AERR, the EPA noticed several differences. The current AERR includes some requirements that were intended to apply only to the triennial NEI emissions data collection and not to impact requirements for SIPs. The primary discrepancy is that as per CAA Section 172(c)(3), SIPs "shall include a comprehensive . . . inventory of actual emissions from all sources of the relevant pollutant or pollutants." The "comprehensive" and "all sources" part of this requirement are not technically satisfied for certain provisions of the AERR. For example, the AERR allows for reporting model inputs (rather than "emissions") for mobile sources. Similarly, the AERR makes optional certain important emissions sources such as windblown dust, biogenic emissions from soils and vegetation, prescribed fires, and wildfires, but these sources must generally be included in inventories pursuant to 172(c)(3). The

EPA provides guidance documents and training for SIP inventory preparation that help ensure that these differences do not result in inadequate SIP inventories. This action proposes to provide additional clarity on these issues regarding what States need to report.

Part of this additional clarity has previously been described in section IV.R.1 of this preamble regarding which pollutants should be included in SIP planning inventories associated with the Part 51 subparts that reference the AERR. In addition, this proposed action includes a new paragraph § 51.15(j) in the proposed regulatory text that lists out inventory requirements for SIPs required under Part 51 Subparts G, X, Z, AA, and CC that are different from requirements for annual or triennial reporting for the NEI. First, this proposed action, when referring to SIP planning inventories, would define point sources only by the relevant CAP point source reporting thresholds under a new paragraph § 51.10(b) in the proposed regulatory text and not by the other criteria such as the new criteria for HAP for major and non-major sources. This proposed revision would retain the existing definition of point sources in this subpart for references from other Part 51 subparts to the AERR. Second, this proposed action would clarify that for SIP planning inventories, airports and railyards would need to be reported as point sources only when they meet the point source reporting threshold and otherwise could be included as a nonpoint (county-total) source. This contrasts with the triennial requirement for which the EPA provides data for review and comment by States for all airports and railyard data, including ones much smaller than the point source reporting thresholds. Third, this proposed action would further clarify in new paragraph § 51.15(j)(2)(iii) that SIP planning inventories should include emissions from all sources, irrespective of any other approaches required or made optionally available by the AERR for the triennial submission of nonpoint, onroad, and nonroad sources.

3. Emission Inventory Years

The third and final type of reference to the AERR from other subparts within Part 51 is about the year of the triennial NEI. Such references appear in Subpart P at § 51.308(f)(2)(iii) and § 51.308(g)(4); Subpart X at § 51.910(d); Subpart AA at § 51.1110(b), and Subpart CC at § 51.1310(b).

Subpart P provides requirements for State implementation of the regional haze program, and § 51.308(f)(2) provides the requirements for the long-

term strategy to be included in periodic revisions of regional haze SIPs. For emissions inventories, paragraph (f)(20)(ii) states that "[t]he emissions information must include, but need not be limited to, information on emissions in a year at least as recent as the most recent year for which the State has submitted emission inventory information to the Administrator in compliance with the triennial reporting requirements of Subpart A of this part." Additionally, paragraph (g)(4) of the same section provides requirements for periodic reports describing progress towards the reasonable progress goals; and this paragraph has a similar reference to the year of triennial submissions to indicate the period over which the State must perform an analysis tracking the change in emissions. No provision of this proposed action would impact the inventory year required for regional haze SIPs, because this action proposes to retain triennial inventory requirements. Thus, under this action, the subpart P requirement that references triennial reporting is still relevant since emissions inventories would continue under this proposed action to be collected on triennial inventory years.

Within Part 51 Subpart X, § 51.910(d) addresses what year should be used for the baseline emissions inventory for Reasonable Further Progress (RFP) plans. This paragraph requires that the appropriate year is at least as recent as the most recent year for which a complete inventory is required to be submitted to the EPA under the provisions of the AERR. The phrase "complete inventory" means the triennial inventory, which are the only inventories for which all source categories could be reported by a State under the AERR. No provision of this proposed action would impact the inventory year required for SIPs under Subpart X, because this action proposes to retain triennial inventory requirements.

Part 51 Subpart AA includes the same statement to specify the baseline emission inventory year needed to meet requirements for RFP, which appears at § 51.1110(b). In addition, § 51.1115(a) refers to the year used for the baseline emission inventory for RFP to explain which years can be used for the base year inventory for the nonattainment area. Likewise, Part 51 Subpart CC includes the same reference to the triennial inventory year at § 51.1310(b). In all cases, no provision of this proposed action would impact the inventory year required for SIPs under Subparts X, AA, or CC because this

action proposes to retain triennial inventory requirements.

S. Summary of Expected Timing for Proposed Revisions

Unless otherwise noted, the proposed revisions in this action would apply for the first inventory reporting year after

promulgation of the final rule. 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

rule promulgation date prior to December 2024. If a final version of this subpart were delayed beyond December 2024, the EPA may delay the phase-in of earlier deadlines. Table 5 below summarizes the intent of this proposed action with respect to deadlines.

TABLE 5—PROPOSED FIRST POSSIBLE DATE FOR DEADLINES ASSOCIATED WITH PROPOSED REVISIONS TO 40 CFR 51 SUBPART A

| First possible date | Requirement |
|--|--|
| Dates for States—point sources | |
| 11/1/2025 | Proposed first deadline to notify the EPA if intend to use CAERS (for 2026 inventory year). |
| 9/30/2024 | Proposed first deadline for States/locals to submit landing and takeoff data for the 2023 inventory year (could be later than this, since States have minimum of 60 dates to review). |
| 1/15/2025 | Proposed deadline for air agencies 2023 NEI point source reporting (for CAP and voluntary HAP including airports and rail yards). |
| 1/15/2026 | Proposed deadline for air agencies 2024 NEI point source reporting (for CAP and voluntary HAP). |
| 3/31/2026 | Proposed first deadline for States to submit their HAP reporting application (for the 2026 inventory year). |
| 1/15/2027 | Proposed deadline for 2025 NEI point source reporting (for CAP and voluntary HAP). |
| 1/15/2028 | Proposed deadline for 2026 NEI point source reporting, for CAP and mandatory HAP when the State has an approved HAP reporting application. Includes the first year for mandatory reporting for intermittent EGUs and required new data fields including release point coordinates, title V permit ID, regulatory codes, and changes to portable sources reporting. |
| 9/30/2028 | Proposed first deadline for earlier State point source reporting (for 2027 inventory year). This is also the first deadline for which the same point sources must be reported each year (no higher reporting thresholds for non-triennial inventories). |
| 5/31/2031 | Proposed first deadline for even earlier State point source reporting (for 2030 inventory year and later). |
| Dates for States—other sources besides point | |
| 1/15/2025 | Proposed deadline for 2023 NEI for rail yards, mobile source inputs, California mobile source emissions and documentation, and nonpoint source emissions and documentation for sources without EPA tools. |
| 3/31/2025 | Proposed deadline for 2023 NEI nonpoint survey. |
| 7/1/2027 | Proposed first deadline for required annual prescribed burning activity data. |
| Within 30 days, or longer as provided by EPA. | Proposed timing for States to report nonpoint tool inputs during the year of the inventory and the year after (e.g., during 2023 and 2024 for the 2023 triennial inventory year). |
| Within 60 days, or longer as provided by EPA. | Proposed timing for States to report nonpoint emissions data for nonpoint sources with EPA tools (e.g., during 2023 and 2024 for the 2023 triennial inventory year). |
| Dates for owners/operators | |
| 10/31/2024 | Proposed deadline for the “One-time Collection Option” for HEDD-related small generating units (if this option were selected for the final rule). |
| 5/31/2025 | Proposed deadline for voluntary reporting by owners/operators (for the 2024 inventory year). |
| 5/31/2026 | Proposed deadline for owners/operators with point sources within Indian country not reported by tribes to report CAP and HAP (for the 2025 inventory year). Also, the deadline for voluntary reporting by other owners/operators. |
| 5/31/2027 | Proposed first deadline for all owners/operators to report HAP for 2026 reporting year. |
| 3/31/2028 | First earlier proposed deadline for owners/operators to report for the 2030 reporting year. |
| To meet Federal or State testing requirement or otherwise within 60 days after completing testing. | Source test/performance test collection. |

T. Summary of Regulatory Impact Analysis

In this preamble section, we briefly summarize the costs and benefits of this proposal. The RIA for this proposed rule provides additional detail on these costs and benefits.⁷⁹ The EPA encourages commenters to provide any additional information not considered in the RIA for this proposed rule or to provide

comments on EPA’s cost estimation approaches.

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 directly attributed to the greater availability and quality of emissions data, and in particular HAP emissions, we present a qualitative discussion of benefits. These benefits

include those to communities that may be particularly impacted by pollutant emissions, whether they be HAP or CAP.

The benefits of the proposed revisions to the AERR of collecting additional HAP, CAPs, 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

⁷⁹ The RIA is available through the docket for this action.

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.

This proposed action would ensure that communities have the data needed to understand significant sources of air pollution that may be impacting them and address existing environmental justice issues that are discussed previously in this preamble. Additional benefits to these communities include building public confidence through clear and transparent emission measures and reports and the ability of the public to better make facilities accountable for their emissions. Availability of increased information on HAP emissions can also be used to advance the Agency's environmental justice goals by increasing the understanding of the potential impacts of air toxics emissions from regulated facilities on minority and disadvantaged communities who have been historically burdened by often difficult to detect and undisclosed pollution that is experienced on a regular basis. The required reporting of HAP emissions data will increase EPA's ability to accurately conduct technology reviews pursuant to CAA section 112(d)(6), and risk reviews under CAA section 112(f)(2), which should lead to future regulation of HAP that will be more effective in reducing the burden of exposure of such emissions from what has occurred in the past. These provisions are additionally informed by Federal policy on environmental justice, including 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 to assess local-scale community impacts and devise solutions for high-risk areas.

The proposed amendments 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, including communities, that bear the social cost of the pollution.

Finally, the proposed provision of additional information could also lead to behavioral changes that could result in 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 additional emissions data. Potential changes in facility operations, such as reductions in pollutant releases, could yield health and environmental benefits. There may be instances where pollutant emissions are themselves valuable product from a market standpoint (*e.g.*, natural gas, that includes HAP and methane, leaking from a pipeline), and their control or capture may not only be beneficial to the environment but also beneficial to the firms that own the natural gas. 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.

Regarding the costs of this proposal, the proposed rule's cost to 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 is estimated at \$89.0 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. All of these costs are in 2021 dollars. 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.

Regarding the population of affected sources for the 2024–2026 time period,

the EPA estimates the proposed rule would impact 85 State/local/Tribal respondents and 820 owners/operators of facilities outside of States' implementation planning authority. Owners/operators for an estimated 40,315 facilities per year would also need to prepare for new reporting requirements 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, the EPA estimates that, under the proposed AERR, owners/operators from about 129,490 facilities would be required to report HAP as would about 235 owners/operators for reporting small generating unit data. More information on the costs and estimates of affected facilities can be found in the ICR supporting statement and the RIA for this proposal, located in the docket for this action.

In addition, 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, an analytical timeline that is approximately the first 10 years after this rule is finalized as proposed. 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 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 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 6 summarizes the costs and benefits of this proposal.

TABLE 6—SUMMARY OF BENEFITS, COSTS AND NET BENEFITS FOR THE PROPOSAL FROM 2024 TO 2033, DISCOUNTED TO 2023

[Million 2021\$^a]

| | Proposal impacts | | | |
|---|---|-------|-----------|-------|
| | 3 Percent | | 7 Percent | |
| | PV | EAV | PV | EAV |
| Total Monetized Benefits ^a | N/A | | N/A | |
| Total Costs | \$3,057 | \$358 | \$2,410 | \$343 |
| Net Benefits | N/A | | N/A | |
| Non-Monetized Benefits | Improved emissions data access for State, local, and tribal government agencies. Increased emissions data for addressing local (environmental justice) issues. Better data to inform regulatory decision making Increased emissions data to incentivize voluntary emission reduction efforts by industry and others. | | | |

^a We have determined that quantification of benefits cannot be accomplished for this proposed rule. This is not to imply that there are no benefits of the proposal; rather, it is a reflection of the difficulties in monetizing the benefits for the listed categories with the data currently available. N/A = not available.

These cost estimates include those for impacts to State, local, and Tribal organizations that are engaging in voluntary activities that would become codified as a result of this proposal if finalized. The EPA has broken out those costs separately and provides discussion of them in the RIA for this proposal. Similarly, we acknowledge that the cost estimates for this proposal include those for revisions to SIP planning activities, and we also break out these costs separately and provide discussion of them in the RIA for this proposal.

V. Statutory and Executive Order Reviews

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

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

This action is a “significant regulatory action,” as defined under section 3(f)(1) of Executive Order 12866, as amended by Executive Order 14094. Accordingly, EPA, submitted this action to the Office of Management and Budget (OMB) for Executive Order 12866 review. Documentation of any changes made in response to the Executive Order 12866 review is available in the docket. The EPA prepared an analysis of the potential costs and benefits associated with this action. This analysis, “Regulatory Impact Analysis for the Proposed Revisions to the Air Emissions Reporting Requirements,” is also available in the docket and is briefly

summarized in section IV.T of this preamble.

B. Paperwork Reduction Act

The information collection activities in this proposed rule have been submitted for approval to the Office of Management and Budget (OMB) under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* The draft Information Collection Request (ICR) document prepared by the EPA has been assigned the EPA ICR number 2170.09. You can find a copy of the ICR in the docket for this rule, and it is briefly summarized here.

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 revisions to the 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 ICR for this proposed action includes collection of both mandatory

and voluntary data from States (as defined in section III 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. While the focus of the draft ICR is the 2024–2026 period, additional costs from 2027 and beyond are included in Appendix A of the draft ICR to reflect additional costs associated with full implementation of the proposed revisions.

Respondents/affected entities: For the 2024–2026 period covered by the draft ICR, the EPA estimates the proposed rule would impact 85 State/local/Tribal respondents and 813 owners/operators of facilities outside States’ implementation planning authority. Also, during this period, the EPA estimates that owners/operators of 13,420 facilities would report source test and performance evaluation data each year and 120,945 facilities (40,315 per year) would collect release point latitude/longitude data for reporting in 2027. 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 129,500 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, owners/operators from an estimated 14,233 facilities (13,420 to States and 819 to EPA), and owners/operators of 7 railroads to respond. The description above provides additional detail on the numbers and types of respondents for

the draft ICR 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 draft ICR, 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 the same amount of point source data every year. Also starting in 2027, States would report prescribed burning data each year. No change is being

proposed to triennial reporting frequency for nonpoint and mobile sources.

Total estimated burden: All burden estimates include additional burden associated with proposed options included in the preamble (or the most costly option when multiple options are described). Table 6 includes total estimated burden split by respondent, activity, and mandatory or voluntary activities. Total estimated burden for all entities combined is 1,142,927 hours for mandatory activities and 99,115 for voluntary hours during the 3-year period of this ICR. Of this, the estimated burden for States is 317,454 hours for mandatory activities and 99,087 for voluntary activities. Estimated burden for owners/operators is 825,473 hours for mandatory activities and 28 hours for voluntary activities. Burden is defined at 5 CFR 1320.3(b).

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Table 6: Total Estimated Burden for proposed requirements for 2024-2026

| Entity | Activity | Mandatory Hours | Voluntary Hours | Total Hours |
|----------------------|---|----------------------------|----------------------------|------------------------|
| States | Update emissions regulations and build prescribed burning collection system | 156,784 | | 156,784 |
| | Convert to CAERS 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 | | 115,214 |
| | State AERR SubTotal | 317,454 | 99,087 | 416,542 |
| Owners/ Operators | Source test reporting | 161,040 | | 161,040 |
| | Emissions data reporting to the EPA (Indian country and rail companies) | 11,382 | 28 | 11,410 |
| | Reporting required data (for AERR) to SLTs | 144,993 | | 144,993 |
| | Preparing to report release point locations | 507,973 | | 507,973 |
| | Owners/Operators SubTotal | 825,473 | 28 | 825,501 |
| | Total | 1,142,927 | 99,115 | 1,242,043 |

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The draft ICR additionally provides, via Appendix C, State and owner/operator hours and costs associated with

emissions data activities for SIP preparation, in compliance with OMB expectations that the EPA include those costs. Since those costs are not burden

associated with the proposed revisions to the AERR, they are not included in Table 6, but are noted here as EPA

requests comment on the burden estimates.

Total estimated cost: Annual capital or operation & 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' total annualized capital costs are estimated to be \$127,500, and their operation and maintenance costs about \$10,156,000.

An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations in 40 CFR part 51 are listed in 40 CFR part 9.

Submit your comments on the agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden to the EPA using the docket identified at the beginning of this rule. You may also send your ICR-related comments to OMB's Office of Information and Regulatory Affairs via email to OIRA_submission@omb.eop.gov, Attention: Desk Officer for EPA. Since OMB is required to make a decision concerning the ICR between 30 and 60 days after receipt, OMB must receive comments no later than September 8, 2023. The EPA will respond to any ICR-related comments in the final rule.

C. Regulatory Flexibility Act

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 complete IRFA is available for review in the docket (see Chapter 4 of the RIA in the docket for this proposal) and is summarized here. 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.

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 HEDD events. The HAP data collection supports improved understanding of pollutants surrounding at-risk communities. Additionally, the proposed revisions to

the AERR would further streamline air emissions reporting, allow for improved consistency of emissions calculation methods, quality, and transparency of state-provided data.

Through this proposal, the EPA will have improved emissions data on which to make decisions affecting implementation of the Clean Air Act for both the air toxics program and the NAAQS. As described in section III of this proposal, the EPA is proposing these amendments pursuant to its authority under CAA sections 110, 111, 112, 113, 114, 129, 172, 182, 187, 189, and 301 (see also section III of this proposal). Further, EPA's proposed action supports better understanding of pollution to inform the EPA as it works to include environmental justice considerations as described by E.O. 12898 (see also section IV.A.1 of this preamble).

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 section II of this proposal. The EPA estimates that approximately 34,800 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 44,600 if the EPA were to use the SBA definition.

Based on this proposal, affected small entities would need to report unit-level information about their facilities and report facility-wide emissions in most circumstances. The small business accommodation that this proposal offers to small businesses to report with less detail could be eliminated for certain facilities if data submitted in past inventory years shows, through EPA modeling, an unacceptable level of risk. Small entities will need to be able to record basic information about their facility such as fuel consumed by certain activities, electricity used, amount of solvents consumed, amount of product produced, or number of employees. Small entities will additionally need to be able to enter this information in electronic forms.

The EPA has reviewed other EPA emissions reporting requirements for duplication and is aware of the potential for duplication of limited data elements for certain other EPA collections, though it is not aware of any collection that is wholly or significantly duplicative. Further, the EPA is actively working to avoid this duplication with its CAERS development efforts. These potentially duplicative requirements include 40 CFR parts 75, 98, and 372. The EPA requests comment on whether this list is comprehensive.

EPA is considering a number of alternatives in this proposed rule to minimize any significant economic impact of the proposed rule on small entities. These proposed approaches are described in sections IV.A.12 through IV.A.14 of this preamble. The EPA has included various accommodations for small entities in the proposed rule based on recommendations from the SBAR Panel Report, and these are additionally reflected in the IRFA and proposed ICR.

As required by Section 609(b) of the RFA, the EPA also convened a Small Business Advocacy Review (SBAR) Panel to obtain advice and recommendations from small entity representatives that potentially would be subject to the rule's requirements. The SBAR Panel evaluated the assembled materials and small-entity comments on issues related to elements of an IRFA. A copy of the full SBAR Panel Report is available in the rulemaking docket.

D. Unfunded Mandates Reform Act (UMRA)

This action does not contain an unfunded mandate of \$100 million or more for State, local, or tribal governments as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. This action does contain unfunded Federal mandates under UMRA that may result in annual expenditures of \$100 million or more for the private sector. Accordingly, the costs and benefits associated with this action are discussed in section IV.T of this preamble and in the RIA, which is in the docket for this rule.

E. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

This action has Tribal implications. However, it will neither impose substantial direct compliance costs on federally recognized Tribal governments, nor preempt Tribal law, and does not have substantial direct effects on the relationship between the Federal Government and Indian Tribes or on the distribution of power and responsibilities between the Federal Government and Indian Tribes, as specified in E.O. 13175. 65 FR 67249

(November 9, 2000). Consistent with the EPA Policy on Consultation and Coordination with Indian Tribes, the EPA will provide Tribal officials the opportunity to provide meaningful and timely input through government-to-government consultation during the development of this action. The majority of the facilities within Indian country expected to be affected by this proposed action are owned by private entities. For point sources, there would only be Tribal implications associated with this rulemaking in the case where a unit is owned by a Tribal government. The EPA notes that the reporting requirements for emissions data proposed are unlikely to impose substantial costs. For nonpoint sources, there would be Tribal implications for the proposed requirements for how Tribes should report nonpoint emissions when overlapping more than a single county within a State. Further, Tribal implications may exist for the proposed provision that directs States to include complete nonpoint source activity, inclusive of activity within Indian country, when tribes overlapping State boundaries are not required to report or optionally report nonpoint data to EPA.

G. Executive Order 13045: Protection of Children From Environmental Health and Safety Risks

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that the EPA has reason to believe may disproportionately affect children, per the definition of “covered regulatory action” in section 2–202 of the Executive Order. This action is not subject to Executive Order 13045 because it does not concern an environmental health risk or safety risk.

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

This action is not a “significant energy action” because it is not likely to have a significant adverse effect on the supply, distribution or use of energy. Further, we have concluded that this action is not likely to have any adverse energy effects because the requirements to report emission data under this proposed action are either already being met as part of the current AERR or would be a small incremental impact on regulatory requirements for any facility required to report emission data under this action. The EPA does not anticipate that the provision described in section IV.D to collect daily fuel usage data

from States for sources with intermittent electric generation would have any significant impact on the deployment of such sources.

I. National Technology Transfer and Advancement Act

This rulemaking does not involve technical standards.

J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

Executive Order 12898 (59 FR 7629, February 16, 1994) directs federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on communities with environmental justice concerns.

The EPA believes that this type of action does not concern human health or environmental conditions and, therefore, cannot be evaluated with respect to potentially disproportionate and adverse effects on communities with environmental justice concerns. This action would update reporting requirements for State, local, and tribal entities and add new reporting requirement for facilities for the collection of air emissions data that are used to inform EPA’s technical analysis of impacts on human health and the environment.

K. Determinations Under CAA Section 307(b)(1) and (d)

Section 307(b)(1) of the CAA governs judicial review of final actions by the EPA. This section provides, in part, that petitions for review must be filed only in the United States Court of Appeals for the District of Columbia Circuit: (i) When the agency action consists of “any other nationally applicable regulations promulgated, or final action taken, by the Administrator,” or (ii) when such action is locally or regionally applicable but “such action is based on a determination of nationwide scope or effect and if in taking such action the Administrator finds and publishes that such action is based on such a determination.” The CAA reserves to the EPA complete discretion to decide whether to invoke the exception in (ii) described in the preceding sentence.⁸⁰

⁸⁰ *Sierra Club v. EPA*, 47 F.4th 738, 745 (D.C. Cir. 2022) (“EPA’s decision whether to make and publish a finding of nationwide scope or effect is committed to the Agency’s discretion and thus is unreviewable”); *Texas v. EPA*, 983 F.3d 826, 834–35 (5th Cir. 2020).

This proposed action, if finalized, would be “nationally applicable” within the meaning of CAA Section 307(b)(1). In the alternative, to the extent a court finds the action to be locally or regionally applicable, the Administrator intends to exercise the complete discretion afforded to him under the CAA to make and publish a finding that the action is based on a determination of “nationwide scope or effect” within the meaning of CAA Section 307(b)(1).⁸¹

This proposed action, if finalized, would implement a national emissions data collection program in all 50 States, the District of Columbia, U.S. territories, and Indian country, a geographic area that spans all 10 EPA regions and 12 Federal judicial circuits. The proposed action applies a uniform, nationwide approach to data collection and interpretation of the various CAA provision discussed in this preamble across all of these areas, and the proposed rule is based on a common core of legal, technical, and policy determinations (as explained in further detail in the following paragraph). For these reasons, this proposed action, if finalized, would be nationally applicable.

Alternatively, to the extent a court finds this proposal, if finalized, to be locally or regionally applicable, the Administrator intends to exercise the complete discretion afforded to him under the CAA to make and publish a finding that the action is based on one or more determinations of nationwide scope or effect for purposes of CAA Section 307(b)(1).⁸² Specifically, the proposed rule is based on a common core of statutory analysis, factual findings, and policy determinations concerning the collection of emissions data from State, local, and tribal agencies nationwide and from owners/operators of emission sources located in those States, territories, and Indian country. In addition, the technical, scientific, and engineering information in support of the proposed emissions data collection requirements relies on a

⁸¹ In deciding whether to invoke the exception by making and publishing a finding that this action, if finalized, is based on a determination of nationwide scope or effect, the Administrator intends to take into account a number of policy considerations, including his judgment balancing the benefit of obtaining the D.C. Circuit’s authoritative centralized review versus allowing development of the issue in other contexts and the best use of agency resources.

⁸² In the report on the 1977 Amendments that revised section 307(b)(1) of the CAA, Congress noted that the Administrator’s determination that the “nationwide scope or effect” exception applies would be appropriate for any action that has a scope or effect beyond a single judicial circuit. See H.R. Rep. No. 95–294 at 323, 324, reprinted in 1977 U.S.C.A.N. 1402–03.

nationally consistent modeling methodology to set emissions reporting thresholds, as set forth elsewhere in this proposed rule and in the relevant supporting documents in the docket for this proposed rule.

Therefore, pursuant to CAA section 307(b), any petitions for review of this action, if and when it is finalized, must be filed in the D.C. Circuit within 60 days from the date such final action is published in the **Federal Register**.

In addition, pursuant to CAA section 307(d)(1)(V), the EPA hereby determines that this rulemaking action is subject to the requirements of section 307(d).

List of Subjects

40 CFR Part 2

Environmental protection, Emission data, Administrative practice and procedure, Confidential business information, Courts, Freedom of information, Government employees.

40 CFR Part 51

Environmental Protection, Administrative practice and procedure, Air pollution control, Emission data, Intergovernmental relations, Criteria pollutants, Hazardous Air Pollutants, Ozone, Particulate matter, Oxides of Nitrogen, Sulfur dioxide, Lead, Regional haze, Reporting and record keeping requirements, Stationary sources, Mobile sources, Prescribed fires.

Michael S. Regan,
Administrator.

For the reasons stated in the preamble, title 40, chapter I, Part 2 of the Code of Federal Regulations is proposed to be amended and Part 51 is proposed to be revised as follows:

PART 2—[AMENDED]

- 1. The authority for part 2 continues to read as follows:

Authority: 5 U.S.C. 552, 552a, 553; 28 U.S.C. 509, 510, 534; 31 U.S.C. 3717.

Subpart A—Procedures for Disclosure of Records Under the Freedom of Information Act

- 2. Amend § 2.301 by adding paragraph (k) to read as follows.

§ 2.301 Special rules governing certain information obtained under the Clean Air Act.

* * * * *

(k) Data submitted under 40 CFR part 51, subpart A.

(1) Sections 2.201 through 2.215 do not apply to data submitted under 40 CFR part 51, subpart A that the EPA has determined, pursuant to 42 U.S.C. 7414 in a rulemaking subject to 42 U.S.C.

7607(d), to be emission data as defined in paragraph (a)(2)(i) of this section.

(2) The provisions of 40 CFR 2.201 through 2.215 continue to apply for categories of reported information identified in 40 CFR part 51, subpart A for which there is no emission data determination in 40 CFR part 51, subpart A.

PART 51—[AMENDED]

- 3. The Authority citation for part 51 continues to read as follows:

Authority: 23 U.S.C. 101; 42 U.S.C. 7401–7671q.

- 4. Subpart A of part 51 is revised to read as follows:

Subpart A—Air Emissions Reporting Requirements

General Information for Inventory Preparers

§ 51.1 Who is responsible for what actions described in this subpart?

Both States¹ and certain owners/operators of facilities emitting “air pollutants” (as defined by § 51.50 of this subpart) are subject to requirements included in this section.

(a) *Owners and operators of facilities.*

(1) An owner/operator of a point source within a State’s implementation planning authority must report emissions data as described by § 51.25 of this subpart.

(2) An owner/operator of a point source that is outside the geographic scope of a State’s implementation planning authority must report emissions data as described by § 51.27 of this subpart. This could include owners/operators of facilities located within certain portions of Indian country, owners/operators of (1) deepwater ports subject to CAA requirements under the Deepwater Port Act, and (2) owners/operators of OCS sources as defined in CAA section 328(a) with the exception of owners/operators of facilities that are regulated under 43 U.S.C. 1331 *et seq.* (the Outer Continental Shelf Lands Act) and that are located (a) offshore of the North Slope Borough of the State of Alaska, or (b) offshore of the United States Gulf Coast westward of longitude 87 degrees and 30 minutes.

(3) An owner/operator of a point source that collects source test data or performance evaluations may need to

¹The term “State” is defined to include delegated local agencies and tribes that have elected to seek treatment in the same manner as a state (TAS) status and have obtained approval to implement rules such as the AERR through a Tribal Implementation Plan (TIP).

report that data as described by §§ 51.25 and 51.27 of this subpart.

(4) If the owner and operator of a facility are different parties, only one party needs to report under this subpart.

(b) *Indian tribes with Treatment as a State status.* An Indian tribe (as defined by CAA section 302(r)) may elect to seek Treatment as State (TAS) status as prescribed by the Tribal Authority Rule 40 CFR part 49, subpart A. An Indian tribe may obtain approval to implement reporting for this subpart through a Tribal Implementation Plan (TIP), but Indian tribes are under no obligation to do so. Those Indian Tribes that have obtained TAS status are subject to this subpart to the extent allowed in their TIP. Accordingly, for an Indian Tribe that has applied for and received TAS status for air quality control purposes and is subject to the AERR under its TIP, the use of the term state in this subpart should be read to include that tribal government.

(c) *State mandatory reporting.*

(1) A State must collect and report to the EPA criteria pollutant and precursor emissions data from point sources (as defined by § 51.50 of this subpart) as described by § 51.15(a) of this subpart. A State must collect and report data for all such sources within the State’s implementation planning authority, including any offshore areas within State waters or within any Federal waters for which a State agency has delegated authority. A lack of State permitting for point sources or pollutants associated with them does not exempt a facility or pollutant from being reported.

(2) A State must report to the EPA data from airports as described by § 51.15(b) of this subpart.

(3) A State must report to the EPA rail yard data as described by § 51.15(c) of this subpart.

(4) A State must report to the EPA nonpoint source data as described by § 51.15(d) of this subpart.

(5) A State must report to the EPA mobile source data as described by § 51.15(e) of this subpart.

(6) A State must report data about certain prescribed burning (as defined by 40 CFR 51.301) to the EPA (as described by § 51.15(f) of this subpart) for those prescribed burns that meet the following criteria:

(i) The prescribed burn is not an agricultural burn or a land clearance burn (as defined by § 51.50 of this subpart); and

(ii) The prescribed burn occurs on State lands or military lands, excluding prescribed burns on such lands conducted by Federal Land Managers (as defined by CAA 302(i)); and

(iii) The prescribed burn is one of the following:

(A) A broadcast burn or understory burn that impacts at least 50 acres; and/or

(B) A pile burn that includes biomass from at least 25 acres; and/or

(C) A prescribed burn that includes pile burning as well as other prescribed burn types that in total collects biomass from or burns at least 25 acres.

(7) EPA urges State environmental agencies to coordinate with State forestry agencies to collect, obtain, and report the data described by § 51.1(c)(6). A lack of State permitting requirements or other planning processes does not exempt a prescribed burn from being reported.

(d) *State optional reporting.*

(1) For inventory years 2026 and later, a State that intends to collect and report hazardous air pollutants (HAP) on behalf of owners/operators for a given emissions inventory year must:

(i) Promulgate a State regulation to collect facility inventory and actual annual emissions data for HAP to meet the requirements for owners/operators by:

(A) Replicating requirements on owners/operators from § 51.5 of this subpart, excluding paragraphs § 51.5(h) and (i);

(B) Ensuring the definition of point sources is consistent with § 51.50 of this subpart;

(C) Ensuring reporting of all HAP as described by § 51.12(b) of this subpart and requirements for specific situations described by § 51.12(d) and (e) of this subpart;

(D) Ensuring reporting of incidental criteria pollutants and precursors as described by § 51.12(c) of this subpart;

(E) Including the timing for point source reporting from owners/operators to the State as described by § 51.30 of this subpart; and

(F) Ensuring reporting of all required data elements as described by § 51.40(a) and (b) of this subpart.

(ii) Apply to the EPA in writing by March 31 of the first inventory year for which the State intends to report emissions data for HAP (*e.g.*, for the 2026 emissions inventory year, a State must apply by March 31, 2026) by providing citations to the State regulation for each of the elements listed in § 51.1(d)(1)(i).

(2) The EPA will notify a State as expeditiously as possible regarding its application, any needed adjustments, and post final approval decisions on the EPA Air Emissions Inventories website (<https://epa.gov/air-emissions-inventories>) for use by the State and owners/operators.

(3) A State must reapply for HAP reporting approval when one or more of the following events occurs:

(i) The State changes its emissions inventory reporting requirements related to any aspect of the application requirements described by § 51.1(d)(1)(i) of this subpart.

(ii) EPA revises requirements of this subpart for pollutants described by § 51.12 (b) through (e) of this subpart, HAP reporting thresholds (for which the initial reporting thresholds are presented in Table 1B to Appendix A of this subpart) or the associated required data elements as described by § 51.40.

(iii) The EPA notifies a State in writing that a new application is required for any reason, including that the State failed to meet any requirement of this subpart.

(4) If a State intends to use or integrate with the Combined Air Emissions Reporting System (CAERS) for a particular inventory year, the State should notify the EPA of this intent by two months prior to start of the inventory year (*e.g.*, for the 2024 inventory year, a State should notify the EPA by November 1, 2023).

(5) If a State intends to stop collecting and reporting HAP for point sources, the State must notify the EPA in writing by November 1 of the year prior to the inventory year (*e.g.*, for the 2024 inventory year, a State must notify the EPA by November 1, 2023).

(6) The EPA approval for a State to report HAP remains effective for subsequent inventory years until the EPA revokes that approval and transfers responsibility back to owners/operators.

(e) The State (as defined by CAA section 302(d)) may authorize a municipality (as defined by CAA section 302(f)) to fulfill the data collection and reporting requirements of this subpart on behalf of the State and to submit data to the EPA for emissions within that municipality's authority. Such authorization does not relieve the State of responsibility for carrying out the applicable requirements of this subpart. Accordingly, for municipalities that have obtained authority to collect and report under this subpart, the use of the term "State" in this subpart should be read to include that municipality.

§ 51.5 What data, tools and other considerations apply for emissions reporting?

The requirements in this section are effective starting with different inventory years, as follows: Paragraphs (b) through (f) of this section are effective starting with the 2026 inventory year. All other paragraphs are

effective starting with the 2023 inventory year.

(a) A State or owner/operator must estimate annual actual emissions as defined in § 51.50 of this subpart using the best available estimation methods for assessing whether its facility emissions exceed the emissions reporting thresholds in Tables 1A and 1B to Appendix A of this subpart and for submitting point source emissions data under this subpart. The "Introduction to the EPA Compilation of Air Pollutant Emissions Factors (AP-42)"² describes many techniques for calculating emissions and provides on page 4 a hierarchy of emissions estimation methods. For the purposes of this subpart, a State or owner/operator should preferentially use available emissions calculation methods at the top of the hierarchy over emissions calculation approaches lower in the hierarchy. Where current the EPA guidance materials are outdated or are not applicable to sources or source categories, an owner/operator (other than a small entity, as defined by § 51.50 of this subpart) should develop and document new techniques for estimating emissions, which should rely on any available source measurements applicable to the emissions source(s).

(b) A State or owner/operator must include emissions from mobile sources (excluding aircraft and ground support equipment) operating primarily within the facility site boundaries of a point source or multiple adjacent point sources when assessing whether its facility emissions exceed the emissions reporting thresholds in Tables 1A and 1B to Appendix A of this subpart and when submitting point source emissions data under this subpart.

(c) An owner/operator submitting emissions data directly to the EPA under this subpart must use continuous monitor data applicable to the units and processes that operated during the reporting year to calculate annual actual emissions. In the absence of monitored data, an owner/operator must use the most recent source test(s) applicable to the operating conditions of the units and processes during that year to estimate annual actual emissions. An owner/operator should determine which source test data should be included to best estimate annual actual emissions. If a facility has source tests, performance evaluations, or continuous emissions monitoring data for a unit or process that operated during the reporting year and the owner/operator does not use

² <https://epa.gov/air-emissions-factors-and-quantification/ap-42-compilation-air-emissions-factors>.

that data to estimate annual emissions, then the owner/operator must submit a justification for that choice for each unit and pollutant for which such data are not used to estimate emissions.

(d) A State submitting point source emissions on behalf of owners/operators under this subpart must ensure that owners/operators of facilities submitting data to the State take the same approaches as described in paragraph § 51.5(a) through (c) of this subpart. If a State submits data for an owner/operator who has not used available source test data or continuous monitor data to estimate emissions, then the State must submit a justification for each unit and pollutant for which such data are not used to estimate emissions.

(e) When source tests, performance tests, or continuous emissions monitor data are not available, a State and owner/operator may use emission rates from the EPA compilations of emission factors such as WebFIRE and AP-42 to estimate emissions. An owner/operator may also use emission factors provided by States. To estimate emissions from point sources, a State or owner/operator should use emission factors that represent the emissions process and controls at the facility. If existing emission factors are insufficient for developing representative annual actual emissions, a State or owner/operator (other than a small entity, as defined by § 51.50 of this subpart) should develop new emission factors through emission testing of point sources when existing EPA source test methods are available.

(f) When data described in paragraphs (c), (d), and (e) of this section are not available, a State or owner/operator may use the SPECIATE database³ or other credible, publicly available speciation profile data to calculate ratios of related pollutants if relevant speciation profiles are available. Starting with the 2026 inventory year, when using a speciation profile, a State or owner/operator must provide the speciation profile code with their data. When estimating emissions using speciation data, the emissions data must include:

(1) The most applicable emissions calculation method indicating the type of speciation profile used;

(2) The speciation factor used in the calculation, reported as the emission factor;

(3) The pollutant code that identifies the pollutant used to calculate another pollutant, reported as the denominator of the emission factor;

(4) The pollutant code that identifies the pollutant calculated from the

speciation profile, reported as the numerator of the emission factor;

(5) The emissions value and associated required data elements for the pollutant identified in § 51.5(f)(3), reported as an annual emissions value even if that pollutant is not otherwise required (e.g., Total organic gases); and

(6) In the case of a SPECIATE profile, the profile code reported as the emission factor comment, or in the case of other speciation profiles, the journal citation or reference to a publicly available report reported as the emission factor comment.

(g) A State must report data using the Emissions Inventory System (EIS) or analogous electronic reporting approach provided by the EPA to report data required by this subpart. Submission to the EIS can be done using EPA's Central Data Exchange (CDX).⁴ Unless otherwise noted in this section, the EPA provides states information about reporting data, required and optional data fields, and explains how to access all data needed for reporting to EIS as part of a NEI plan available at <https://epa.gov/air-emissions-inventories/national-emissions-inventory-nei>.

(h) An owner/operator reporting directly to the EPA under this subpart must use the Combined Air Emissions Reporting System (CAERS) or analogous electric reporting approach provided by the EPA to report emissions data. The EPA provides owners/operators information about reporting data, required and optional data fields, and explains how to access to all data needed for reporting with CAERS at <https://epa.gov/air-emissions-inventories>.

(i) An owner/operator reporting directly to the EPA under this subpart must use the Compliance and Emissions Data Reporting Interface (CEDRI) to report source test data and performance reports as required by §§ 51.25 and 51.27 or use an analogous electronic reporting approach provided by the EPA. CEDRI can be accessed through the CDX.⁴ CEDRI works with the EPA's Electronic Reporting Tool (ERT) available from EPA's ERT website (<https://epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert>). A list of test methods, performance evaluations, and pollutants compatible with the Electronic Reporting Tool (ERT), as well as the date on which those methods or performance evaluations were available on the ERT, is available from the EPA via the ERT website <https://epa.gov/system/files/>

[documents/2021-09/ert-compatible-methods-and-pollutants.pdf](https://epa.gov/system/files/documents/2021-09/ert-compatible-methods-and-pollutants.pdf).

(j) A State or owner/operator of point sources reporting under this subpart must use the most current data reporting codes for electronic reporting that are available at the time of reporting.

Reporting codes can change over time, and the EPA will strive to publish the EIS reporting codes that can be used for each inventory year by June 30 of inventory year. For example, the EPA would plan to publish by June 30, 2024, codes that are to be used for reporting 2024 emissions. Codes are published by the EPA as follows:

(1) Source classification codes (SCCs) can be obtained from the EPA SCC website (<https://epa.gov/scc>). Materials provided on this website explain what to do if a SCC is not available for an emissions process; and

(2) Other reporting codes are available through EPA's electronic reporting data systems (e.g., EIS and CAERS), and the EPA may make them available through references within the NEI plan for each inventory year.

(k) The EPA provides States for their use nonpoint emissions calculation methods, associated tools/spreadsheets, and draft activity and emissions data for nonpoint sources, point source aircraft, and point source rail yards. The nonpoint information includes approaches and data based on county totals for commercial marine vessels that are treated in this subpart as nonpoint sources for reporting purposes. The EPA provides on its Air Emissions Inventories website (<https://epa.gov/air-emissions-inventories>) an NEI Plan that includes directions for which methods, tools, and models should be used and instructions for accessing data described in this paragraph.

(l) The EPA provides the Motor Vehicle Emissions Simulator (MOVES) model including quality assurance tools for input data at the MOVES website (<https://epa.gov/moves>). The EPA also provides draft and final onroad and nonroad emissions data based on the MOVES model. States, except for California, must use MOVES model input formats and the quality assurance tools or the same for the latest available on-road and nonroad EPA models to meet the requirements of § 51.15(e). The model version to be used for a given inventory reporting year will be defined in an emissions inventory plan as per paragraph (k).

(m) For onroad mobile sources, the EPA approves onroad mobile models for California for transportation conformity purposes and for use in State Implementation Plans (SIPs). For this

³ SPECIATE Database available at <https://epa.gov/air-emissions-modeling/speciate>.

⁴ Central Data Exchange is available at <https://cdx.epa.gov/>.

subpart, California must report emissions from onroad mobile sources using the latest model version approved by the EPA as of January 1 of the emissions inventory year and may optionally use a newer approved model. For example, the onroad model approved as of January 1, 2023, should be used to estimate and report emissions to meet the requirements in § 51.15(e)(3) for the 2023 reporting year, or the State could optionally choose to use a model approved by the EPA after that date.

(n) *Confidential data/Confidential Business Information (CBI)*. Emissions data are defined by 40 CFR 2.301(a)(2)(i) and are not confidential pursuant to 42 U.S.C. 7414(c). The specific data elements submitted under this subpart all fall within the definition of emissions data and are therefore not entitled to confidential treatment. Further, pursuant to 42 U.S.C. 7414(c), the EPA is required to make emissions data available to the public. Thus, all data elements submitted under this subpart will not be protected as CBI and will be made publicly available without further notice to States or the owner/operator of facilities.

(o) An owner operator or State reporting on their behalf must consider the recommendations and requirements of paragraphs (a) through (f), (n), (p), and (q) of this section when:

(1) Estimating emissions to determine whether a facility's annual actual emissions of HAP exceed point source reporting thresholds in Table 1B to Appendix A of this subpart; and

(2) When estimating emissions to report to EPA.

(p) To estimate emissions for pollutant groups (e.g., "Lead and compounds" or "Nickel and compounds"), an owner/operator or a State reporting on their behalf should ensure emissions values accurately reflect the mass of the metal/toxic portion of the group (Lead or Nickel in these examples) by:

(1) Using emission factors or source test emission rates without any adjustments; or

(2) Accounting for chemical compounds to reflect only the toxic portion of the pollutant group when estimating emissions based on material balance or engineering judgement; or

(3) When no other information is available, assuming the entire mass of the HAP reported is the toxic portion.

(q) Some HAP may be measured or have emission factors for a pollutant group as well as for individual compounds within the group. An owner/operator or a State reporting on their behalf must report the most detailed pollutants available

preferentially over pollutant groups. When the detailed pollutants do not comprise the total mass of the pollutant group, the remaining portion of mass for the pollutant group must be reported as implemented in the electronic reporting approach (as described by § 51.5(g)). Specific compound groups and individual pollutants are provided in Tables 1B and 1D to Appendix A of this subpart.

§ 51.10 What criteria determine when facilities must be reported as point sources?

(a) For point sources (as defined by § 51.50 of this subpart), when determining whether emissions data from a facility must be reported as a point source, States and owners/operators must:

(1) Include total annual actual emissions from all stack and fugitive release points at the facility; and

(2) Include emissions from mobile sources as described by § 51.5(b) of this subpart, and in doing so, may exclude emissions from aircraft and ground support equipment occurring at the facility.

(b) For point sources associated with emission inventories required by Part 51 Subpart G, Subpart X, Subpart Z, Subpart AA, Subpart CC, States must interpret the definition of point sources (as per § 51.50 of this subpart) as follows:

(1) Use only the criteria of Table 1A to Appendix A of this subpart in assessing the definition;

(2) For Subpart G, the reporting threshold applies for oxides of nitrogen (NO_x);

(3) For Subparts X, AA, and CC, the reporting thresholds apply for NO_x, carbon monoxide (CO), and volatile organic compounds (VOC); and

(4) For Subpart Z, the reporting thresholds apply for NO_x, CO, VOC, sulfur dioxide (SO₂), ammonia (NH₃), total particulate matter whose aerodynamic diameter is 2.5 microns or less (PM_{2.5}), and total particulate matter whose aerodynamic diameter is 10 microns or less (PM₁₀).

(c) If EPA finalizes revisions to any HAP reporting thresholds presented in Table 1B to Appendix A of this subpart, only those revised reporting thresholds published in the **Federal Register** at least 6 months before the start of an inventory year apply for that inventory year (e.g., revised thresholds finalized by June 30, 2026, would apply for the 2026 emissions reports).

(d) To develop new HAP reporting thresholds for revisions of this subpart, the EPA would apply the following formula for changes to UREs: Revised

reporting threshold = (Initial threshold in Table 1B to Appendix A of this subpart x URE in 2022)/Revised URE; and

(e) To develop new HAP reporting thresholds for revisions of this subpart, the EPA would apply the following formula for changes to RfCs: Revised reporting threshold = (Initial threshold in Table 1B to Appendix A of this subpart x Revised RfC)/RfC in 2022.

§ 51.12 What pollutants must be reported for point sources?

(a) *Criteria air pollutants and precursors*. For the purposes of reporting emissions data for this subpart, criteria pollutants and precursors are CO, NO_x, VOC, SO₂, NH₃, total PM_{2.5}, total PM₁₀, Pb, and either condensable PM (when emitted by the facility), or filterable PM_{2.5}. When the facility potential to emit of any such pollutant is greater than or equal to the reporting thresholds listed in Table 1A to Appendix A of this subpart, all such pollutants must be reported.

(b) *Hazardous air pollutants*.

(1) For major point sources, reported HAP must include all HAP as listed in section 112(b)(1) of the Clean Air Act, 42 U.S.C. 7412(b)(1), and 40 CFR 63.64(a).

(2) For point sources other than major sources, reported HAP must include any pollutant listed in Table 1B to Appendix A of this subpart when the annual actual emissions of that pollutant or pollutant group is greater than or equal to the HAP reporting threshold (presented in Table 1B to Appendix A of this subpart).

(c) *Incidental criteria air pollutants or precursors*. If a facility meets the point source definition of § 51.50 because of the facility HAP emissions but does not have PTE or actual emissions of criteria pollutants or precursors exceeding the reporting thresholds of Table 1A to Appendix A of this subpart, emission reports for that facility must include incidental criteria pollutants or precursors as listed in the "Associated CAPs" columns Tables 1B and 1D to Appendix A of this subpart.

Specific Reporting Requirements for State Reporters

§ 51.15 What data does my State need to report to EPA?

State annual and triennial requirements are included in paragraphs (a) through (f) of this section, with the first inventory year for each requirement included in § 51.20. At a State's option, a State may report other emissions data described by paragraphs (g) through (i) of this section. Requirements on a State for inventories required by 40 CFR

Subparts G, X, Z, AA, and ZZ are included at paragraph (j) of this section.

(a) *Point sources.*

(1) A State must report the facility inventory and annual actual emissions of all criteria pollutants and precursors as described by § 51.12(a).

(2) If the EPA has approved a HAP reporting application as per § 51.1(d)(2) of this subpart, a State must report emissions of HAP consistent with § 51.12(b) and (c) of this subpart. A State may report one or more HAP voluntarily through the 2025 inventory year and may not report HAP without an approved application starting with the 2026 inventory year.

(3) Starting with the 2026 inventory year, a State must report the facility inventory and daily fuel consumption and associated required data elements as described in § 51.40 for small generating units when:

(i) Hourly or daily emissions and activity data from the unit are not otherwise reported to the EPA, and

(ii) The unit was operated to offset electricity demand from the electricity grid; and

(iii) The unit is located at a facility that operates on land.

(4) For electricity generation to offset electricity demand from the electricity grid, a State need not include any units in their report when an owner/operator has reported daily or hourly emissions or activity data directly to the EPA. The unit is located at a facility that operates on land.

(5) A State may report additional pollutants not required by § 51.12 of this subpart when supported by the EPA electronic reporting approaches (as described by §§ 51.5(g) and (h) of this subpart).

(6) A State must report point source data consistent with the required data elements described by § 51.40 of this subpart.

(b) *Airports.* Airport data includes emissions from aircraft that occur lower than 3,000 feet above the ground surface (the typical height considered to be part of the take-off or landing cycle) and emissions from ground support equipment (GSE). A State must report stationary sources and qualifying mobile sources as defined by § 51.5(b) (other than aircraft and GSE) at airports as part of § 51.15(a) and report aircraft and GSE data for triennial inventory years for all airports within a State's implementation planning authority:

(1) A State must submit activity data (*i.e.*, landings and takeoffs).

(2) In lieu of submitting aircraft activity data required by § 51.15(b)(1), a State may instead review EPA-provided data as described in § 51.5(k) of this

subpart, submit comments on that data, and/or notify the agency that the State accepts these data.

(3) In addition to § 51.15(b)(1) or (2), a State may voluntarily submit annual actual emissions of aircraft and GSE for some or all airports. If submitting annual actual emissions, a State must:

(i) Use the latest aircraft emissions model specified by the NEI plan (as described by § 51.5(k) of this subpart);

(ii) Submit all pollutants estimated by the latest aircraft emissions model;

(iii) Submit documentation that describes how the State used the aircraft emissions model to estimate annual actual emissions and quality assured the data; and

(iv) Report aircraft data consistent with the required data elements described by § 51.40 of this subpart.

(c) *Rail yards.* Rail yard data include emissions from yard locomotive switchers and can include other emissions sources if present. For triennial inventory years for all rail yards within a State's implementation planning authority:

(1) A State must submit activity data and documentation that explains how the State collected or created the data.

(2) In lieu of submitting rail yard activity data and documentation required by § 51.15(c)(1), a State may instead review EPA-provided data as described in § 51.5(k) of this subpart, submit comments on that data, and/or notify the EPA that the State accept these values.

(3) In addition to § 51.15(c)(1) or (2), a State may voluntarily submit annual actual emissions for some or all rail yards. If submitting annual actual emissions, a State must:

(i) Submit all pollutants estimated by the EPA rail yard emissions method;

(ii) Submit documentation that describes how the State estimated rail yard annual actual emissions and quality assured the data; and

(iii) Report rail yard data consistent with the required data elements described by § 51.40 of this subpart.

(d) *Nonpoint sources.* For triennial inventory years, a State must report nonpoint sources, including information for all stationary source emissions not reported as point sources. For reporting purposes, nonpoint sources include commercial marine vessels and underway locomotives.

(1) For this section, "tool" refers to any calculation tool, spreadsheet, or other electronic instrument provided by the EPA for the purpose of nonpoint source emission calculations.

(2) A State must complete an online survey in the electronic reporting approach described in § 51.5(g) to

indicate by source classification code (SCC) for which nonpoint sources a State will report nonpoint tool input data, accept EPA-provided tool input data, and/or report annual actual emissions.

(3) For nonpoint sources with EPA-provided emissions calculation tools (as described by § 51.5(k)), excluding commercial marine vessels and locomotives:

(i) A State must report input data for the nonpoint tools in the formats provided by EPA; or

(ii) In lieu of submitting tool inputs, a State may review and accept EPA-provided nonpoint tool input data; and

(iii) In addition to § 51.15(d)(3)(i) or (ii), a State may voluntarily submit annual actual emissions of any pollutants allowed by the electronic reporting approach (as described by § 51.5(g)).

(4) For commercial marine vessels and locomotives, a State must either:

(i) Report annual actual emissions of pollutants described by § 51.12(a); or

(ii) Provide comment on EPA-provided annual actual emissions data; or

(iii) Accept EPA-provided emissions data.

(5) For nonpoint sources without the EPA tools:

(i) A State must report annual actual emissions of pollutants described by § 51.12(a) of this subpart if the nonpoint source is not excluded by paragraphs (a) (6) and (8) of this section.

(ii) A State may report emissions of HAP listed in Table 1B.

(6) For actual annual emissions reported under § 51.15 (d) (3) through (5) of this subpart, a State must submit documentation that describes how the State estimated nonpoint annual actual emissions and quality assured the data.

(7) A State should exclude episodic wind-generated emissions from sources that are not point sources and exclude biogenic sources of emissions from vegetation and soils.

(8) A State may exclude nonpoint sources when such sources are reasonably estimated by the State to represent a *de minimus* percentage of total county and State emissions of a given pollutant.

(9) The EPA nonpoint tools include input data for the entire area within county boundaries and State waters, including any Indian country. For paragraphs § 51.15 (d) (3) through (6), a State must either:

(i) Include total activity input (inclusive of Indian country) when reporting nonpoint emissions; or

(ii) For a State that includes counties overlapping Indian country for an

Indian Tribe expected to report emissions as per § 51.1(b), the State must avoid double counting by excluding the activity within and emissions from Indian country from the county total data reported.

(10) An Indian tribe that reports nonpoint tool inputs and/or emissions to meet the requirements of paragraphs (3) through (7) of this section must report that data separately for each county that includes Indian country. When an Indian tribe reports nonpoint emissions, the EPA encourages the tribe to coordinate with the State(s) and to use EPA-provided tools and include documentation with their submissions.

(e) *Onroad mobile and nonroad mobile sources.* For triennial inventory years, a State must report onroad mobile and nonroad mobile data and include information for all onroad and nonroad categories included in the EPA mobile emissions model, such as the MOVES model.

(1) A State must provide model inputs to the EPA model. A State must include at a minimum:

- (i) A county database checklist;
- (ii) Vehicle miles travelled (by county and road type); and
- (iii) Vehicle population (by county, vehicle type, fuel type and age).

(2) If a State has relevant data for the inventory year, a State may optionally provide inputs to the latest EPA-developed mobile emissions model for the following:

- (i) Hourly average speed distribution by vehicle type, ideally different for weekday and weekend (distance traveled in miles divided by the time in hours);
- (ii) Vehicle age distribution;
- (iii) Inspection and maintenance program information; and
- (iv) Documentation that describes how the State created these inputs and quality assured the data.

(3) In lieu of submitting model inputs for onroad and nonroad mobile sources, California:

- (i) Must submit emissions values for the same pollutants estimates by the EPA model for criteria pollutants and precursors;
- (ii) Must submit documentation that describes the model inputs, use of the model and any options selected, post-processing steps, and the quality assurance performed to estimate the emissions; and
- (iii) May submit emissions of HAP, greenhouse gases, and other pollutants. The EPA urges California to include these other pollutants when they are estimated by the EPA onroad and nonroad model.

(iv) Must submit data consistent with the required data elements described by § 51.40 of this subpart.

(4) In lieu of submitting any data, States other than California may review and accept EPA-provided model inputs and emission estimates. Such States must use the electronic reporting approach provided by the EPA (as described by § 51.5(g) of this subpart).

(f) *Prescribed fires other than agricultural burning or land clearance burning.* A State must annually report data for any prescribed burn other than an agricultural burn or land clearance burn that meets the criteria described by § 51.1(c)(6) of this subpart. The EPA urges States to coordinate between State environmental agencies and forestry agencies, and forestry agencies may submit for the State.

(1) A State must report data consistent with the required and optional data elements described by § 51.40 and Table 3 to Appendix A of this subpart and other optional data fields as provided by the EPA through reporting format instructions.

(2) For burns that are a combination of broadcast or understory burns and pile burns, a State must submit separate entries for the broadcast or understory portion of the burn and for the pile burn.

(g) *Wildfires.* A State may report wildfire timing and activity data using the data elements described by § 51.40 of this subpart. A State may review and submit comments about EPA-provided emissions and activity data. The EPA urges States to coordinate between State environmental agencies and forestry agencies, and forestry agencies may submit for the State.

(h) *Agricultural Fires.* A State may report agricultural fire timing and activity data using the data elements described by § 51.40(f) of this subpart. A State may review and submit comments about EPA-provided emissions and activity data.

(i) A State may submit sub-annual data to EPA.

(1) A State may choose to report NO_x and VOC summer day emissions as required by the ozone SIP requirements rules (40 CFR Subparts, X, AA, or CC) or report CO winter work weekday emissions for CO nonattainment areas or CO attainment areas with maintenance plans to the EIS using the data elements described in this subpart.

(2) A State may choose to report ozone season day emissions of NO_x as required under the NO_x SIP Call and summer day emissions of NO_x that may be required under the NO_x SIP Call (40 CFR 51.122) for controlled sources to

the EIS using the data elements described in this subpart.

(3) A State may choose to report average day emissions of any pollutants submitted under the PM_{2.5} SIP Requirements Rule (40 CFR Subpart Z) to the EIS using the data elements described in this subpart.

(j) *Inventory requirements for State Implementation Plans required under Part 51 Subparts G, X, Z, AA, and CC.* The following paragraphs provide specifications that define how a State shall be consistent with the data elements required as per 40 CFR 51.122(g), §§ 51.915, 51.1008 (a)(1)(vi), 51.1115(e), and 51.1315(e).

(1) *Point sources, aircraft and GSE, and railyards.* A State must:

- (i) Report sources as point sources as defined by § 51.50 of this subpart;
- (ii) Meet the requirements of § 51.15(a)(1), limiting reports to those pollutants required by the SIP; and
- (iii) Compile point source data consistent with the required data elements described by § 51.40 of this subpart.

(2) *Nonpoint sources.* A State must:

- (i) Compile emissions for pollutants required for the SIP using the required data elements as described by § 51.40 of this subpart;
- (ii) Include any airports (including aircraft and GSE) not reported as a point source; commercial marine vessels, locomotives, agricultural burning, prescribed burning, and wildfires;
- (iii) Include all sources of emissions (including biogenic and geogenic sources) allowing for the provision of § 51.15(d)(8) of this subpart; and
- (iv) Meet the requirements related to adjacent State land and Indian country of § 51.15(d) paragraphs (9) and (10) of this subpart when Indian country is within a nonattainment area.

(3) *Onroad and nonroad.* A State must:

- (i) Compile emissions for pollutants required for the SIP rather than model input data using the required data elements as described in § 51.40 of this subpart; and
- (ii) Meet the requirements related to adjacent State land and Indian country described by § 51.15(d) paragraphs (9) and (10) of this subpart when Indian country is within a nonattainment area. While § 51.15(d) paragraphs (9) and (10) are for nonpoint sources for the triennial reporting requirement under this subpart, they apply to onroad and nonroad sources for the purposes of this paragraph.

(k) *Supporting information.* A State must report the data elements in Tables 2A and 2B to Appendix A of this subpart and other data required for use

of EPA's electronic reporting approach (as described by § 51.5(g)). The EPA may ask States to report other data or documentation as needed to meet special purposes.

(l) *Quality assurance and supporting information.* In addition to the required reporting and documentation described in paragraphs (a) through (k) of this section, the EPA may ask States to review or revise data concerns identified through EPA quality assurance. The EPA may ask States for other data or documentation to support a State submission when the information provided does not fully explain the source or quality of the data. Based on the EPA quality review, the EPA may elect not to use the state-provided data if it does not pass quality assurance checks or if the State's documentation does not adequately explain the origin and quality of the submitted data.

§ 51.20 When does my State report which information to EPA?

A State is required to report both annual and triennial emission inventories to the EPA. The content of these inventories may vary depending on the inventory year and choices made by a State in accordance with the provisions of § 51.1(d).

(a) Annual inventory.

(1) For the 2023 through 2026 inventory years, a State must report data for point sources to the EPA (as defined by § 51.15(a) of this subpart) within 12 months and 15 days of the end of the inventory year (e.g., for the 2022 inventory year, by January 15, 2024). For 2023 through 2025, this requirement excludes reporting of data for small generating units consistent with the requirements of § 51.15(a)(3) of this subpart.

(2) Starting with the 2026 inventory year, a State is required to report prescribed fire data (except for agricultural burning and land clearance burning, as described by § 51.15 (f)) within 6 months after the end of the inventory year. For example, 2026 data will be due by July 1, 2027, and then every July 1 thereafter. Prior to the 2026 inventory year, a State may report prescribed burning data or review EPA-provided data within 6 months after the end of the inventory year.

(3) A State may report wildfire and agricultural burning data or review EPA-provided data as identified in § 51.15 (g) and (h) by the same deadline of § 51.20(a)(2).

(4) For the 2027 through 2029 inventory years, a State must report point source data to the EPA (as described by § 51.15(a) of this subpart)

within 9 months after the end of the inventory year (e.g., for the 2027 inventory year, by September 30, 2028).

(5) Starting with the 2030 inventory year and for every inventory year thereafter, a State must report point source data to the EPA (as described by § 51.15(a) of this subpart) within 5 months after the end of the inventory year (e.g., for the 2030 inventory year, by May 31, 2031).

(b) *Triennial inventory.* In addition to the annual inventory requirements of § 51.20(a) of this subpart, a State must report additional data starting with the 2023 inventory year and every triennial year thereafter (2026, 2029, etc.) by the dates provided below.

(1) A State must report airport data (as described by § 51.15 (b) of this subpart) within 9 months after the inventory year, or 60 calendar days after the EPA provides airport data to a State, whichever is later (i.e., for the 2023 inventory year, by September 30, 2024, or later).

(2) A State must report data within 12 months and 15 days after the end of the inventory year (i.e., for the 2023 inventory year, by January 15, 2025) for:

(i) Rail yard sources (as described by § 51.15 (c) of this subpart);

(ii) Onroad and nonroad sources (as described by § 51.15 (e) of this subpart); and

(iii) Nonpoint emissions for sources without EPA tools (as described by § 51.15(d)(5) of this subpart).

(3) A State must submit an online nonpoint survey (as described by § 51.15(d)(2) of this subpart) within 15 months after the end of the inventory year (i.e., for the 2023 inventory year, by March 31, 2025).

(4) A State must submit nonpoint tool inputs (as described by § 51.15(d)(3) of this subpart), within 30 days of the EPA providing tool inputs to the State, or within the period defined by the EPA at the time the tool inputs are provided, whichever is longer.

(5) When a State optionally provides nonpoint emissions for nonpoint sources with EPA tools (as described by § 51.15(d)(3)(iii) of this subpart), a State must report such data and documentation (as described by § 51.15(d)(6) of this subpart) within 60 days of the EPA providing tool inputs to the State, or within the period defined by the EPA at the time the tool inputs are provided, whichever is longer.

Specific Reporting Requirements for Owners and Operators of Facilities

§ 51.25 What data do owners or operators of facilities within States need to report to EPA?

(a) An owner/operator of a facility within a State must report the facility inventory and annual actual emissions of HAP consistent with § 51.5 provisions of this subpart for owners/operators, § 51.12(b) and (c) of this subpart, and associated required data elements (as described by § 51.40 of this subpart) if:

(1) The facility is in a State that does not have an approved application (as per § 51.1(d)(1) of this subpart); and

(2) The facility is a point source as defined by § 51.50 of this subpart.

(b) An owner/operator of a point source must report results of source tests and performance evaluations if:

(1) Such results are not otherwise reported to the EPA based on regulations listed at <https://epa.gov/electronic-reporting-air-emissions/cedri#list>;

(2) Such results are gathered to meet any other Federal or State requirement;

(3) Such results are supported by an EPA electronic reporting system at the time the test conducted as described in § 51.35 of this subpart; and

(4) The tests are not subject to confidential treatment in accordance with exceptions for emission data provided by 40 CFR 2.301 paragraphs (a)(2)(ii)(A) and (a)(2)(ii)(B).

(c) *Quality assurance and supporting information.* The EPA may require an owner/operator of a point source to review and/or revise data that do not meet quality assurance criteria. The EPA may require an owner/operator of a point source to provide other data or documentation to support their submissions when information provided does not fully explain the source or quality of the data provided.

§ 51.27 What data do owners or operators of other facilities need to report to EPA?

(a) An owner/operator of a point source outside the geographic scope of a States' implementation planning authority is subject to the requirements of § 51.25(b) and (c) of this subpart.

(b) An owner/operator of a point source outside the geographic scope of a States' implementation planning authority must:

(1) Report the facility inventory and annual actual emissions of criteria pollutants, precursors, and HAP consistent with § 51.5 provisions for owners/operators, § 51.12(a) through (c) of this subpart and associated required data elements as described in § 51.40 of this subpart;

(2) Report the facility inventory and daily fuel consumption and associated required data elements as described in § 51.40 for small generating units when:

(i) Hourly or daily emissions and activity data from the unit are not otherwise reported to the EPA;

(ii) The unit was operated to offset electricity demand from the electricity grid; and

(iii) The unit is located at a facility that operates on land.

(3) For portable facilities operating across State and/or Indian country boundaries, report the facility inventory and the portion of annual emissions not reported by those States and/or tribes.

(c) For owners/operators of offshore facilities subject to Title V emissions reporting and/or emissions quantification requirements, owners/operators should use approaches consistent with those permits to identify the emissions sources of such facilities and to estimate and submit emissions data.

(d) An owner/operator of a facility subject to the requirements of 40 CFR 49.138 that also meets the point source definition of this subpart is still required to report in accordance with this subpart except that such facilities:

(1) Are exempt from the requirements of this subpart to report emissions of those pollutants which are reported under 40 CFR 49.138, and

(2) May at the option of the owner/operator, report those exempt pollutants to the EPA electronic reporting system described in § 51.5(h) of this subpart.

§ 51.30 When do owners or operators of facilities need to report data to EPA?

(a) *Optional reporting for 2024 and 2025.* For the 2024 and 2025 emissions inventory years, an owner/operator of a point source has the option to complete submission of data in accordance with §§ 51.25(a) and 51.27(b) through (d) of this subpart within 6 months after the end of the inventory year. The first date for meeting this optional reporting approach is May 31, 2025, for the 2024 inventory year.

(b) *Mandatory reporting for 2025.* For the 2025 emissions inventory year, an owner/operator of a point source within Indian country must complete submission of data in accordance with §§ 51.25(a) and 51.27(b) through (d) of this subpart by May 31, 2026.

(c) *Mandatory reporting for 2026.* For the 2026 emissions inventory year, an owner/operator of a point source reporting under this subpart directly to the EPA must complete submission of data required by §§ 51.25(a) and 51.27(b) through (d) of this subpart by May 31, 2027.

(d) *Mandatory reporting for 2027 and subsequent years.* Starting with the 2027 emissions inventory year and every year thereafter, an owner/operator of a point source reporting under this subpart directly to the EPA must complete submission of data required by §§ 51.25(a) and 51.27(b) through (d) of this subpart within 3 months after the inventory year. The first date for meeting this requirement is March 31, 2028, for the 2027 inventory year.

(e) Owners/operators conducting performance tests and performance evaluations that meet the requirements of § 51.25(b) of this subpart must report results from all such tests electronically to the EPA using approaches required by § 51.35 of this subpart. Test results conducted on and after the effective date of the final rule must be reported by:

(1) The earliest scheduled reporting date for any form of reporting (electronic or otherwise) as required by the Federal or State action motivating the measurements; or

(2) If no scheduled date exists, within 60 days of completing the measurements.

§ 51.35 How do owners or operators of a facility report emissions, source test, and performance evaluation results?

For purposes of this section, the terms ERT and CEDRI mean ERT and CEDRI or analogous electronic reporting approaches provided by the EPA, as per § 51.5(i).

(a) *Performance Tests and Performance Evaluations.* Owners or operators of facilities must submit performance test and performance evaluation data following the procedures specified in paragraphs (a)(1) through (3) of this section. Section § 51.5(i) of this subpart provides more information on ERT and a list of test methods, performance evaluations, and pollutants supported.

(1) *Performance Test Methods that are supported by the ERT as listed on the ERT website at the time the test is conducted.* Upload the ERT project data file or an electronic file consistent with the XML schema with the appropriate data to CEDRI as a part 51 submission.

(2) *Performance Evaluations of CEMS measuring relative accuracy test audit (RATA) pollutants that are supported by the ERT as listed on the ERT website at the time the evaluation is conducted.* Submit the results of the performance evaluation to the EPA via CEDRI.

Submit the data in a file format generated using the ERT. Alternatively, submit an electronic file consistent with the XML schema listed on the ERT website.

(3) *Performance Test Methods or Performance Evaluations that are not supported by the ERT as listed on EPA's ERT website at the time of the test or evaluation is conducted.* The results of the performance test method or performance evaluation must be included as an attachment (such as a Portable Document Format (PDF) file) in the ERT or an alternate electronic file consistent with the XML schema listed on EPA's ERT website. Submit the ERT-generated package or alternate file to the EPA via CEDRI.

(b) *Performance Test and Performance Evaluation Submission Content.* In addition to the data required to be submitted in § 51.35(a) of this subpart, unless otherwise approved by the Administrator in writing, submit the following elements identified in paragraphs (b)(1) through (11) of this section. If the elements are not already included as part of the performance test method or performance evaluation, put these elements in an attachment (such as a PDF file) in the ERT or an alternate electronic file consistent with the XML schema listed on EPA's ERT website. Submit the ERT-generated package or alternate file to the EPA using CEDRI.

(1) The capacity of the unit being tested.

(2) The load of the unit, in terms of percent capacity, during the testing period.

(3) The level of activity of the unit during the testing period (e.g., input consumption rate, product consumption, heat input, and/or output production rate).

(4) The operating conditions of the unit during the testing period.

(5) The process data, such as temperatures, flow rates, pressure differentials, pertaining to the unit and its control devices during the testing period.

(6) General identification information for the facility including a mailing address, the physical address, the owner or operator or responsible official (where applicable) and his/her email address, and the appropriate Federal Registry System (FRS) number for the facility.

(7) Purpose of the test or evaluation including the applicable regulation requiring the test (if any), the pollutant(s) and other parameters being measured, the applicable emission standard (if any), any process parameter component, and a brief process description.

(8) Description of the emission unit undergoing testing or evaluation including fuel burned, control devices, and vent characteristics; the appropriate source classification code (SCC); the

permitted maximum process rate (where applicable); and the sampling location.

(9) Description of sampling or evaluation and analysis procedures used and any modifications to standard procedures, quality assurance procedures and results, record of process operating conditions that demonstrate the applicable test or evaluation conditions are met, and values for any operating parameters for which limits were being set during the test or evaluation, as applicable.

(10) Where a performance test method or performance evaluation requires you to record or report, the following shall be included in your submission: Record of preparation of standards, record of calibrations, raw data sheets for field sampling, raw data sheets for field and laboratory analyses, chain-of-custody documentation, and example calculations for reported results.

(11) Identification of the company conducting the performance test or evaluation including the company's primary office address, telephone number, email address, and the name of the company employee who conducted the test.

(c) *Extensions for CDX/CEDRI Outages.* If you are required to electronically submit a report through CEDRI in the CDX, you may assert a claim of an EPA system outage for failure to timely comply with that reporting requirement. To assert a claim of an EPA system outage, you must meet the requirements outlined in paragraphs (c)(1) through (5) of this section. The decision to accept the claim of an EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(1) You must have been or will be precluded from accessing CEDRI and submitting a required report within the time prescribed due to an outage of either the CEDRI or CDX systems.

(2) The outage must have occurred within the period beginning five business days prior to the date that the submission is due. The outage may be planned or unplanned.

(3) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.

(4) You must provide to the Administrator a written description identifying:

(i) The date(s) and time(s) when CDX or CEDRI was accessed, and the system was unavailable;

(ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to an EPA system outage;

(iii) A description of measures taken or to be taken to minimize the delay in reporting; and

(iv) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.

(5) In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved.

(d) *Extensions for Force Majeure Events.* If you are required to electronically submit a report through CEDRI, you may assert a claim of *force majeure* for failure to timely comply with that reporting requirement. To assert a claim of *force majeure*, you must meet the requirements outlined in paragraphs (d)(1) through (4) of this section.

(1) You may submit a claim if a *force majeure* event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period beginning five business days prior to the date the submission is due. For the purposes of this section, a *force majeure* event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents you from complying with the requirement to submit a report electronically by the due date. Examples of such events are acts of nature (e.g., hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (e.g., large scale power outage).

(2) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.

(3) You must provide to the Administrator:

(i) A written description of the *force majeure* event;

(ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to the *force majeure* event;

(iii) A description of measures taken or to be taken to minimize the delay in reporting; and

(iv) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.

(4) In any circumstance, the reporting must occur as soon as possible after the *force majeure* event occurs.

(5) The decision to accept the claim of *force majeure* and allow an extension to the reporting deadline is solely

within the discretion of the Administrator.

(e) *Recordkeeping.* Any records required to be maintained by this subpart that are submitted electronically via EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a State or the EPA as part of an on-site compliance evaluation. For a minimum of 5 years after a performance test or performance evaluation is conducted, an owner/operator must retain and make available upon request, for inspection by the Administrator, the records or results of such performance test or performance evaluation and other data needed to determine emissions from a source.

Additional Specifications for Emission Reports

§ 51.40 In what form and format should emissions data be reported to EPA?

(a) *General.* A State or owner/operator reporting annually or triennially under this subpart must report the required data elements described in this section using the formats required by the EPA electronic data collection approaches described in § 51.45 of this subpart. A State or owner/operator must use reporting code values for certain data elements consistent with § 51.5(j) of this subpart. Because electronic reporting technology changes over time, the EPA provides the latest reporting format information and reporting codes on the EPA websites referenced in § 51.5 of this subpart.

(b) *Point sources.*

(1) A State or owner/operator (unless the facility is eligible for and elects to comply with reporting as provided in § 51.40(b)(3)) must:

(i) Report facility inventory data for the data elements listed in the "point" column in Table 2A to Appendix A of this subpart;

(ii) Report emissions data for the data elements listed in the "point, airports, railyards" column in Table 2B to Appendix A of this subpart;

(iii) Use the same unit, process, and release point identifiers for all pollutants emitted from the same unit, process, and release point at the facility; and

(iv) Report daily activity data for small generating units described by §§ 51.15(a)(3) and 51.27(b)(2) of this subpart using the data elements listed in Table 2C to Appendix A of this subpart.

(2) An owner/operator of a facility (or a State reporting on their behalf) is eligible to use the alternative reporting

approach of § 51.40(b)(3) for a facility when:

(i) The owner/operator is a small entity (as defined by § 51.50 of this subpart);

(ii) The owner/operator of the facility has never been notified that the EPA has modeled a cancer risk for that 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 as per § 51.20 for owners/operators reporting to a State and as per § 51.30 for owners/operators reporting to EPA; and

(iii) Estimates of more detailed emissions are not required by a State.

(3) An owner/operator of a facility (or a State reporting on their behalf) meeting the conditions of § 51.40(b)(2) may, as an alternative to the reporting requirements of § 51.40(b)(1) report as follows:

(i) Report facility inventory data for the data elements required as per the “point (small entity)” column in Table 2A to Appendix A of this subpart; and

(ii) Report emissions data for the data elements required as per the “point (small entity)” column in Table 2B to Appendix A of this subpart.

(c) *Airports and rail yards.* The EPA provides default data tables (e.g., a spreadsheet) for a State to use (as described by § 51.5(k) of this subpart).

(1) To meet the requirement of § 51.15(b)(1) or (2) and 51.15(c)(1) or (2) of this subpart, a State must use the data tables provided by the EPA to submit data in an electronic format.

(2) For a State that optionally reports emissions and documentation for these sources, the State must:

(i) Report facility inventory data elements using the data elements as described by Table 2A to Appendix A of this subpart.

(ii) Report aircraft and rail yard source emissions using the data elements as described by Table 2B to Appendix A of this subpart.

(d) *Nonpoint sources.* The EPA provides default data tables (e.g., tools or spreadsheet) for a State to use for some nonpoint sources as described by § 51.5(k) of this subpart.

(1) For nonpoint sources with EPA tools/spreadsheets excluding commercial marine vessels and locomotives (as described by § 51.15(d)(3), a State must use (i.e., review and/or edit and submit online) the data tables provided.

(2) For a State that reports nonpoint actual emissions and documentation voluntarily or to meet a requirement of § 51.15(d), the State must report nonpoint sources using the data elements listed in Table 2B in Appendix

A of this subpart. Documentation must be submitted in one of the formats supported by the electronic reporting system described by § 51.5(g).

(e) *Onroad and nonroad sources.*

(1) For a State submitting MOVES inputs, the State must use MOVES input formats for the version of MOVES and meet other requirements for electronic submission for a given inventory year (as described by § 51.5(l)).

(2) When California reports emissions to comply with § 51.15(e)(3), the State must report data and documentation to comply using the data elements listed in Table 2B in Appendix A of this subpart. Documentation must be submitted in one of the formats supported by the electronic reporting approach (as described by § 51.5(g)).

(f) *Prescribed burning, wildfires, and agricultural.* When reporting required and/or optional data for fires, a State must report data using the data elements listed in Table 3 in Appendix A of this subpart. The same format is used for both the mandatory data (prescribed burning except for agricultural burning or land clearance burning) and the voluntary data (wildfires and agricultural burning).

§ 51.45 How should States and owners/operators report the data required by this subpart?

(a) A State must submit required annual actual emissions and related data and documentation to comply with § 51.15 of this subpart to the EPA through the EIS or a comparable electronic reporting approach provided by the EPA (as described by § 51.5(g) of this subpart).

(b) An owner/operator must submit annual actual emissions and related data and documentation to comply with § 51.25(a) or § 51.27(b) of this subpart to the EPA through CAERS or a comparable electronic reporting approach provided by the EPA (as described by § 51.5(h) of this subpart).

(c) An owner/operator must submit source test and performance evaluation data and documentation to comply with § 51.25(b) of this subpart to the EPA through CEDRI or a comparable electronic reporting approach provided by the EPA (as described by § 51.5(i) of this subpart).

§ 51.50 What definitions apply to this subpart?

Aircraft engine type means a code defining a unique combination of aircraft and engine used as an input parameter for calculating emissions from aircraft.

Activity data means data needed to calculate emissions using an emission

factor or emissions calculation tool. Activity data varies depending on the emissions calculation approach and therefore the emissions source. Examples of activity data include fuel consumed for combustion emissions, landing and takeoff data for airport emissions, acres burned, material used for solvent evaporation emissions, and vehicle miles traveled for onroad mobile source emissions.

Actual emissions means (for the purposes of this subpart) the emissions of a pollutant from a source that is required to be reported under this rule, determined by accounting for actual emission rates associated with normal source operation and actual or representative production rates (i.e., capacity utilization and hours of operation). Actual emissions include emissions of a pollutant that occur during periods of startup, shutdown, and may include malfunctions. Since malfunctions are, by nature, unpredictable and given the myriad different types of malfunctions that can occur, malfunction emissions are difficult to estimate. However, to the extent that malfunctions become a regular and predictable event, then such emissions should be quantified with regular and predictable emissions and included in actual emissions.

Agency regulation description means the description of the State, local, or tribal regulation when reporting a regulation for which no code is available for reporting in EIS.

Agricultural burn means the use of a prescribed fire to burn crop residue.

Annual emissions means actual emissions for a facility, point, or process that are measured or calculated to represent a calendar year.

Air pollutants means criteria pollutants and their precursors, and hazardous air pollutants.

Aircraft engine type code means a code that defines the engine aircraft type for reporting airport emissions to EIS.

Broadcast burn means a prescribed burning event for which the biomass is burned in place, as opposed to being collected for a pile burn. Broadcast burning can include cuttings from fuels reduction treatments and logging slash that are not piled.

Combined Air Emissions Reporting System (CAERS) means the electronic reporting interface developed by the EPA to enable facility reporting to multiple EPA and State emissions reporting programs.

CDX means EPA’s central data exchange, a system used for many electronic environmental data submissions to the U.S. EPA.

CEDRI means Compliance and Emissions Data Reporting Interface, a data collection system used by the EPA to collect electronic performance test reports, notification reports, and periodic reports.

CEMS means continuous emissions monitoring system, which is the total equipment necessary for the determination of a concentration or emission rate emitted from a source.

Control identifier means a unique code for a facility that identifies a control device, process specialization, or operational practice used to reduce emissions (e.g., wet scrubber, low NO_x burner, flaring, process change, ban).

Control measure code means an EIS code used to specify the type of control measure.

Control measure percent pollutant reduction efficiency means the percent reduction achieved for the pollutant when the control measure is operating as designed.

Control percent effectiveness means an estimate of the portion of the reporting period's activity for which the control device was operating as designed (regardless of whether the control device is due to rule or voluntary).

Control pollutant code means the pollutant code for the pollutant associated with a control measure that has emissions changes caused by the control measure.

Control status code means the EIS code that identifies the operating status of the facility site (e.g., operating, temporarily shut down, permanently shut down).

Control status year means the first inventory year for which the reported control status code applies.

Emission calculation method means the code describing how the emissions for a pollutant were calculated, e.g., by stack test, continuous emissions monitor, EPA emission factor, etc.

Emission factor means the ratio relating emissions of a specific pollutant to an activity throughput level.

Emission operating type means the operational status of an emissions unit for the time period for which emissions are being reported, i.e., Routine (including Startup/Shutdown), Malfunction.

Emission process identifier means a unique code for the process generating the emissions.

Emissions year means the calendar year for which the emissions estimates are reported.

ERT means the Electronic Reporting Tool.

Facility air centroid coordinates means a latitude-longitude using the

WGS84 or NAD83 datum that maps to or near the centroid of the air emissions activities at a facility.

Facility attributes means the components of a facility including facility characteristics (e.g., name, address, latitude/longitude), emissions units and their properties (e.g., identification codes, name, capacity), emissions release points and their properties (e.g., stack identification code, fugitive release identification code, release point height, release point latitude/longitude, release point width or diameter), emissions processes and their properties (e.g., process identification code, source classification code), and emissions controls and their properties (e.g., control identification code, control method type).

Facility inventory means the compilation of data about facility attributes for all facilities included in the national emissions inventory data repository.

Facility site identifier means the unique code for a plant or facility treated as a point source, containing one or more pollutant-emitting units. The EPA's reporting format allows for State submittals to use either the State's data system identifiers or EPA's EIS identifiers.

Facility site name means the name of the facility.

Facility site status code means the EIS code that identifies the operating status of the facility site (e.g., operating, temporarily shut down, permanently shut down).

Facility site status year means the first inventory year for which the reported facility site status code applies.

Facility source category code means the EIS code that indicates the Clean Air Act stationary source designation (e.g., major for criteria pollutants and precursors, major for HAP, non-major).

Federal waters means those waters over the "outer Continental Shelf" as defined in the Outer Continental Shelf Lands Act (43 U.S.C. 1331(a)).

Fugitive release midpoint latitude means the measure of the angular distance on a meridian north or south of the equator.

Fugitive release midpoint longitude means the measure of the angular distance on a meridian east or west of the prime meridian.

Incidental criteria air pollutant or precursor means a criteria pollutant or precursor emitted from a facility that meets the point source reporting definition for emissions of HAP but not for emissions of criteria pollutants and precursors.

Indian country means Indian country as defined by 18 U.S. Code 1151.

Land clearance burn means the use of a prescribed fire to burn vegetation debris resulting from land clearing projects for property development and right of way maintenance.

Lead (Pb) means elemental Pb or as a chemical compound containing Pb, which should be reported as the mass of the Pb atoms only.

Mobile source means a motor vehicle, nonroad engine or nonroad vehicle, where:

(a) A *motor vehicle* is any self-propelled vehicle designed for transporting persons or property on a street or highway;

(b) A *nonroad engine* is an internal combustion engine (including the fuel system) that is not used in a motor vehicle or a vehicle used solely for competition, or that is not subject to standards under sections 111 or 202 of the CAA; and

(c) A *nonroad vehicle* is a vehicle that is powered by a nonroad engine and that is not a motor vehicle or a vehicle used solely for competition.

NAICS means North American Industry Classification System code. The NAICS codes are U.S. Department of Commerce's codes for categorizing businesses by products or services and have replaced Standard Industrial Classification codes.

NAICS type means whether the reported NAICS is a primary, secondary, tertiary, etc. NAICS code.

Nitrogen oxides (NO_x) means nitrogen oxides (NO_x) as defined in 40 CFR 60.2 as all oxides of nitrogen except N₂O. Nitrogen oxides should be reported on an equivalent molecular weight basis as nitrogen dioxide (NO₂).

Nonpoint sources collectively represent individual sources that have not been inventoried as specific point or mobile sources and are compiled as a county total. The individual sources treated collectively as nonpoint sources are typically too small, numerous, or difficult to inventory using the methods for the other classes of sources.

Nonpoint survey means the form within the electronic reporting approach described in § 51.5(g) that is used by States to specify the use of State and/or EPA data for each nonpoint source type.

Particulate matter (PM) is a criteria air pollutant. For the purpose of this subpart, the following definitions apply:

(a) *Filterable PM_{2.5} or Filterable PM₁₀* means Particles that are directly emitted by a source as a solid or liquid at stack or release conditions and captured on the filter of a stack test train. Filterable PM_{2.5} is particulate matter with an aerodynamic diameter equal to or less than 2.5 micrometers. Filterable PM₁₀ is particulate matter with an aerodynamic

diameter equal to or less than 10 micrometers.

(b) *Condensable PM*: Material that is vapor phase at stack conditions, but which condenses and/or reacts upon cooling and dilution in the ambient air to form solid or liquid PM immediately after discharge from the stack.

(c) *Primary PM_{2.5}*: The sum of filterable PM_{2.5} and condensable PM.

(d) *Primary PM₁₀*: The sum of filterable PM₁₀ and condensable PM.

(e) *Secondary PM*: Particles that form or grow in mass through chemical reactions in the ambient air well after dilution and condensation have occurred. Secondary PM is usually formed at some distance downwind from the source. Secondary PM should not be reported in the emission inventory and is not covered by this subpart.

Percent control approach effectiveness means the percentage of time or activity throughput for a nonpoint source that a control approach is operating as designed, including the capture and reduction devices. This percentage accounts for the fact that controls typically are not 100 percent effective because of equipment downtime, upsets and decreases in control efficiencies.

Percent control approach penetration means the percentage of a nonpoint source category activity that is covered by the reported control measures.

Percent control measures reduction efficiency means the nonpoint source net emission reduction efficiency across all emissions control measures.

Percent control reduction efficiency means the point source percent reduction achieved for the pollutant when all control measures are operating as designed.

Percent control release point apportionment means the percentage of a point source exhaust gas stream captured for routing to a set of control devices.

Physical address means the location address (street address or other physical location description), locality name, State, and postal zip code of a facility. This is the physical location where the emissions occur; not the corporate headquarters or a mailing address.

Pile burn means a prescribed fire used to ignite hand or machine piles of cut vegetation resulting from vegetation or fuel management activities.

Point source means a stationary or portable facility that (1) is a major source under 40 CFR part 70 for any pollutant, or (2) has PTE or annual actual emissions of pollutants greater than or equal to the reporting thresholds in Table 1A to Appendix A of this

subpart, or (3) has a primary NAICS code listed in Table 1C to Appendix A of this subpart and annual actual emissions of pollutants greater than or equal to the reporting HAP reporting thresholds (presented in Table 1B to Appendix A of this subpart). In assessing whether emissions levels exceed reporting thresholds, all provisions of this subpart related to emissions estimation approaches apply, including §§ 51.5 and 51.10 of this subpart.

Pollutant code means a unique code for each reported pollutant assigned by the reporting format specified by the EPA for each inventory year.

Portable facility means a facility that does not have a fixed location such as an asphalt plant or portable drilling rig, mobile offshore drilling units (MODUs), and offshore installation vessels.

Prescribed burning or prescribed burn means prescribed burning as defined by 40 CFR 50.1.

Primary NAICS means the NAICS code that most accurately describes the facility or supplier's primary product/activity/service. The primary product/activity/service is the principal source of revenue for the facility or supplier.

Process status code means the EIS code that indicates the current operating status of the process (e.g., operating, temporarily shut down, or permanently shut down).

Process status year means the first inventory year for which the reported process status applies.

Regulatory code means a unique code that identifies an air regulation that applies to an emission unit or process.

Regulation start year means the first year the air regulation (identified by the regulatory code) reduced emissions from the unit or process.

Regulation end year means the last year the air regulation (identified by the regulatory code) reduced emissions from the unit or process.

Release point apportionment control status means Indicator as to whether the release point apportionment is controlled or uncontrolled.

Release point apportionment identifier means the release point identifier to which an emission process is emitting when specifying the portion of the process emitting to that release point.

Release point apportionment means the component name used to describe the intersection between an emissions process and a release point.

Release point apportionment percent means the average annual percent of an emissions process that is vented through a release point.

Release point apportionment site path means the site path identifier to apply the release point apportionment percent.

Release point identifier means a code that uniquely identifies a release point of emissions at a facility.

Release point exit gas flow rate means the numeric value of the flow rate of a stack gas.

Release point exit gas temperature means the numeric value of the temperature of an exit gas stream in degrees Fahrenheit.

Release point exit gas velocity means the numeric value of the velocity of an exit gas stream.

Release point height means physical height of a stack or fugitive release above the surrounding terrain.

Release point identifier means a unique code for the point where emissions from one or more processes release into the atmosphere.

Release point identifier effective date means the date on which an agency began using the given identifier for the release point object.

Release point identifier end date means the date on which an agency stopped using the given identifier for the release point object (if no value is given for this element, it is assumed the identifier is still active).

Release point latitude means the location of a release point, the measure of the angular distance on a meridian north or south of the equator.

Release point length means the length of the release in the North-South direction as if the angle is zero degrees.

Release point longitude means the location of a release point, the measure of the angular distance on a meridian east or west of the prime meridian.

Release point stack diameter means the inner physical diameter of a stack.

Release point status code means the EIS code that indicates the current operating status of the release point (e.g., operating, temporarily shut down, or permanently shut down).

Release point status year means the first inventory year for which the reported release point status applies.

Release point type code means the code for physical configuration of the release point.

Release point width means width of the release in the East-West direction as if the angle is zero degrees.

Reporting period type means the code describing the time period covered by the emissions reported, i.e., Annual, 5-month ozone season, summer day, or winter.

Sequence number means the number that specifies the order of control measures and other site paths within a site path.

Site path means a collection of control devices at a facility that work in conjunction with each other to reduce emissions from a release point.

Site path average percent apportionment means the average percent of an emissions flow (during a year) that is vented through a control device (or control path) and provides for specification of venting to multiple controls and paths operating in parallel.

Site path identifier means a code unique to a facility that identifies a site path.

Site path name means the common name given for a site path (e.g., by an owner/operator to label the path with words).

Site path percent effectiveness means an estimate of the portion of the reporting period's activity for which the overall control system was operating as designed (regardless of whether the control devices are due to a requirement or are voluntary).

Site path pollutant code means the pollutant code for the pollutant that is controlled by a site path.

Site path control measure percent reduction means the percent reduction achieved for the pollutant when all control measures are operating as designed.

Site path definition means a collection of data elements that identifies the relationship between a path and a control (or a group of controls, which must include control identifier(s) and/or path identifier(s), the sequence of the controls via

sequence numbers, and the site path average percent apportionment for each control)

Small entity means an owner/operator that meets the small business definition of CAA section 507(c).

Small entity type means the small business definitions that apply to an owner/operator responsible for reporting emissions for a given facility.

Small generating unit means any boiler, turbine, internal combustion engine or other unit that combusts fuel on an occasional basis to generate electricity for the electricity grid or for on-site use by a facility other than for emergency use.

Source classification code means a code assigned to an emission process identifier that describes the equipment, fuel, and/or operation characteristics of the process that emits air pollutants.

State and county FIPS code means the system of unique identifiers in the Federal Information Placement System (FIPS) used to identify States, counties and parishes for the entire United States, Puerto Rico, and Guam.

Throughput means a measurable factor or parameter that relates directly or indirectly to the emissions of an air pollution source during the period for which emissions are reported. Depending on the type of source category, activity information may refer to the amount of fuel combusted, raw material processed, product manufactured, or material handled or processed. It may also refer to population, time of operation,

employment, or number of units. Activity throughput is typically the value that is multiplied against an emission factor to generate an emissions estimate.

Understory burn means a prescribed burning event for which the biomass is burned in place under a forest canopy, as opposed to being collected for a pile burn. Understory burning can include cuttings from fuels reduction treatments and logging slash that are not piled

Unit design capacity means a measure of the size of a point source, based on the reported maximum continuous throughput or output capacity of the unit.

Unit identifier means a unique code for the unit that generates emissions, typically a physical piece of equipment or a closely related set of equipment.

Unit status code means the EIS code that indicates the current operating status of the unit (e.g., operating, temporarily shut down, or permanently shut down).

Unit status year means the first inventory year for which the reported unit status applies.

VOC means volatile organic compounds (as defined by 40 CFR 51.100).

XML means eXtensible Markup Language, which is a simple, text-based format for representing structured information for documents and data.

Appendix A to Subpart A of Part 51—Tables

TABLE 1A—TO APPENDIX A OF SUBPART A—REPORTING THRESHOLDS FOR CRITERIA POLLUTANTS AND PRECURSORS FOR TREATMENT AS POINT SOURCE

| Pollutant | Thresholds ¹ for 2021, 2022, 2024, and 2025 inventory years | Thresholds for the 2023, 2026, and subsequent inventory years | |
|-------------------------------------|--|---|---|
| | | Most areas | Nonattainment areas ² |
| (1) SO ₂ | ≥2,500 | ≥100 | ≥100. PM _{2.5} (Serious) ≥70. |
| (2) VOC | ≥250 | ≥100 | ≥100. within OTR ³ ≥50. O ₃ (Serious) ≥50. O ₃ (Severe) ≥25. O ₃ (Extreme) ≥10. |
| (3) NO _x | ≥2,500 | ≥100 | PM _{2.5} (Serious) ≥70. ≥100. O ₃ (Serious) ≥50. O ₃ (Severe) ≥25. O ₃ (Extreme) ≥10. |
| (4) CO | ≥2,500 | ≥1,000 | PM _{2.5} (Serious) ≥70. ≥1,000. CO (all areas) ≥100. |
| (5) Pb ..... | ..... | ≥0.5 (actual) | ≥0.5 (actual). |
| (6) Primary PM ₁₀ | ≥250 | ≥100 | ≥100. PM ₁₀ (Serious) ≥70. |
| (7) Primary PM _{2.5} | ≥250 | ≥100 | ≥100. PM _{2.5} (Serious) ≥70. |
| (8) NH ₃ | ≥250 | ≥100 | ≥100. |

TABLE 1A—TO APPENDIX A OF SUBPART A—REPORTING THRESHOLDS FOR CRITERIA POLLUTANTS AND PRECURSORS FOR TREATMENT AS POINT SOURCE—Continued

| Pollutant | Thresholds ¹ for 2021, 2022, 2024, and 2025 inventory years | Thresholds for the 2023, 2026, and subsequent inventory years | |
|-----------|--|---|----------------------------------|
| | | Most areas | Nonattainment areas ² |
| | | | PM _{2.5} (Serious) ≥70. |

¹ Reporting thresholds for point source determination shown in tons per year of potential to emit as defined in 40 CFR part 70, except for Pb. Reported emissions should be in actual tons emitted for the required period.

² The point source reporting thresholds vary by attainment status for SO₂, VOC, NO_x, CO, PM₁₀, PM_{2.5}, and NH₃.

³ OTR = Ozone Transport Region, which means the area established by CAA section 184(a) or any other area established by the Administrator pursuant to CAA section 176A for purposes of ozone.

This table contains the HAP reporting thresholds for non-major sources.

TABLE 1B TO APPENDIX A OF SUBPART A—REPORTING THRESHOLDS BY POLLUTANT FOR HAZARDOUS AIR POLLUTANTS FOR TREATMENT AS POINT SOURCE

| Description | Associated CAPs ¹ | Pollutant code ² | Actual emissions initial threshold (short tons/year) |
|-------------------------------------|------------------------------|-----------------------------|--|
| 1,1,2-Trichloroethane | VOC | 79005 | 0.22 |
| 1,1,2,2-Tetrachloroethane | VOC | 79345 | 10 |
| 1,2,4-Trichlorobenzene | VOC | 120821 | 10 |
| 1,2-Dibromo-3-Chloropropane | VOC | 96128 | 0.0015 |
| 1,1-Dimethyl Hydrazine | VOC | 57147 | 10 |
| 1,2-Diphenylhydrazine | VOC | 122667 | 10 |
| 1,2-Epoxybutane | VOC | 106887 | 10 |
| 1,2-Propylenimine | VOC | 75558 | 10 |
| 1,3-Butadiene | VOC | 106990 | 0.078 |
| 1,3-Dichloropropene | VOC | 542756 | 1.1 |
| 1,3-Propanesultone | VOC | 1120714 | 0.0043 |
| 1,4-Dichlorobenzene | VOC | 106467 | 0.26 |
| 1-Bromopropane | VOC | 106945 | 10 |
| 2,2,4-Trimethylpentane | VOC | 540841 | 10 |
| 2,4-Dinitrophenol | VOC | 51285 | 10 |
| 2,4,6-Trichlorophenol | VOC | 88062 | 2.2 |
| 2,4-D, salts and esters | VOC | See Table 1D | 10 |
| 2,4-Dinitrotoluene | VOC | 121142 | 10 |
| 2,4-Toluene Diisocyanate | VOC | 584849 | 0.079 |
| 2,4,5-Trichlorophenol | VOC | 95954 | 10 |
| 2-Chloroacetophenone | VOC | 532274 | 0.21 |
| 2-Nitropropane | VOC | 79469 | 0.58 |
| 3,3'-Dichlorobenzidine | VOC | 91941 | 0.028 |
| 3,3'-Dimethoxybenzidine | VOC | 119904 | 10 |
| 3,3'-Dimethylbenzidine | VOC | 119937 | 10 |
| 4,4'-Methylenebis(2-Chloraniline) | VOC | 101144 | 0.0041 |
| 4,4'-Methylenedianiline | VOC | 101779 | 0.0027 |
| 4,4'-Methylenediphenyl Diisocyanate | VOC | 101688 | 0.59 |
| 4-Aminobiphenyl | VOC | 92671 | 10 |
| 4-Dimethylaminoazobenzene | VOC | 60117 | 0.0020 |
| 4-Nitrobiphenyl | VOC | 92933 | 10 |
| 4-Nitrophenol | VOC | 100027 | 10 |
| 4,6-Dinitro-o-cresol | VOC | 534521 | 10 |
| Acetaldehyde | VOC | 75070 | 0.49 |
| Acetamide | VOC | 60355 | 0.15 |
| Acetonitrile | VOC | 75058 | 10 |
| Acetophenone | VOC | 98862 | 10 |
| Acrolein | VOC | 107028 | 0.39 |
| Acrylamide | VOC | 79061 | 0.016 |
| Acrylic Acid | VOC | 79107 | 1.1 |
| Acrylonitrile | VOC | 107131 | 0.040 |
| Allyl Chloride | VOC | 107051 | 0.54 |
| Aniline | VOC | 62533 | 1.5 |
| Anisidine | VOC | 90040 | 10 |
| Antimony | PM | 7440360 | 10 |
| Arsenic | PM | 7440382 | 2.3E-04 |
| Asbestos | PM | 1332214 | 10 |
| Benzene | VOC | 71432 | 0.096 |
| Benzidine | VOC | 92875 | 1.5E-04 |

TABLE 1B TO APPENDIX A OF SUBPART A—REPORTING THRESHOLDS BY POLLUTANT FOR HAZARDOUS AIR POLLUTANTS FOR TREATMENT AS POINT SOURCE—Continued

| Description | Associated CAPs ¹ | Pollutant code ² | Actual emissions initial threshold (short tons/year) |
|---|------------------------------|-----------------------------|--|
| Benzotrichloride | VOC | 98077 | 10 |
| Benzyl Chloride | VOC | 100447 | 0.080 |
| Beryllium | PM | 7440417 | 4.1E-04 |
| Biphenyl | VOC | 92524 | 10 |
| Bis(2-Ethylhexyl)Phthalate | VOC | 117817 | 2.0 |
| Bis(Chloromethyl)Ether | VOC | 542881 | 3.8E-04 |
| Bromoform | VOC | 75252 | 3.8 |
| Cadmium | PM | 7440439 | 5.6E-04 |
| Captan | VOC | 133062 | 10 |
| Carbaryl | VOC | 63252 | 10 |
| Carbon Disulfide | VOC | 75150 | 10 |
| Carbon Tetrachloride | VOC | 56235 | 0.45 |
| Carbonyl Sulfide | VOC | 463581 | 10 |
| Catechol | VOC | 120809 | 10 |
| Chlordane | VOC | 57749 | 0.027 |
| Chlorine | | 7782505 | 0.26 |
| Chloroacetic Acid | VOC | 79118 | 10 |
| Chlorobenzene | VOC | 108907 | 10 |
| Chlorobenzilate | VOC | 510156 | 0.22 |
| Chloroform | VOC | 67663 | 10 |
| Chloromethyl Methyl Ether | VOC | 107302 | 10 |
| Chloroprene | VOC | 126998 | 0.0065 |
| Chromium Compounds: | | | |
| Chromium | PM | 7440473 | 1.2E-04 |
| Chromium (III) | PM | 16065831 | 10 |
| Chromic Acid (VI) ³ | PM | 7738945 | 1.2E-04 |
| Chromium Trioxide ³ | PM | 1333820 | 1.2E-04 |
| Chromium (VI) | PM | 18540299 | 1.2E-04 |
| Cobalt | PM | 7440484 | 2.2E-04 |
| Coke Oven Emissions | VOC | 140 | 0.0068 |
| Cresol/Cresylic Acid (Mixed Isomers) | VOC | See Table 1D | 10 |
| Cumene | VOC | 98828 | 10 |
| Cyanide Compounds | PM | See Table 1D | 10 |
| DDE (1,1-Dichloro-2,2-Bis(p-Chlorophenyl) Ethylene) | VOC | 72559 | 10 |
| DDE (2,2-Bis(p-chlorophenyl)ethane) | VOC | 3547044 | 10 |
| Dibenzofuran | VOC | 132649 | 10 |
| Dibutyl Phthalate | VOC | 84742 | 10 |
| Dichloroethyl Ether | VOC | 111444 | 0.012 |
| Dichlorvos | VOC | 62737 | 10 |
| Diethanolamine | VOC | 111422 | 10 |
| Diethyl Sulfate | VOC | 64675 | 10 |
| Dimethyl formamide | VOC | 68122 | 10 |
| Dimethyl Phthalate | VOC | 131113 | 10 |
| Dimethyl Sulfate | VOC | 77781 | 10 |
| Dimethylcarbamoyl Chloride | VOC | 79447 | 10 |
| Dioxins and Furans | PM | See Table 1D | 1.1E-07 |
| Epichlorohydrin | VOC | 106898 | 1.3 |
| Ethyl acrylate | VOC | 140885 | 10 |
| Ethyl Carbamate | VOC | 51796 | 0.0058 |
| Ethyl Chloride | VOC | 75003 | 10 |
| Ethyl Benzene | VOC | 100414 | 10 |
| Ethylene Dibromide | VOC | 106934 | 0.0038 |
| Ethylene Dichloride | VOC | 107062 | 0.092 |
| Ethylene Glycol | VOC | 107211 | 10 |
| Ethylene Oxide | VOC | 75218 | 4.1E-04 |
| Ethylene Thiourea | VOC | 96457 | 0.079 |
| Ethyleneimine (Aziridine) | VOC | 151564 | 10 |
| Ethylidene Dichloride | VOC | 75343 | 2.6 |
| Fine Mineral Fibers | PM | See Table 1D | 10 |
| Formaldehyde | VOC | 50000 | 0.083 |
| Glycol Ethers | VOC | See Table 1D | 10 |
| Heptachlor | VOC | 76448 | 0.0021 |
| Hexachlorobenzene | VOC | 118741 | 0.010 |
| Hexachlorobutadiene | VOC | 87683 | 0.14 |
| Hexachlorocyclopentadiene | VOC | 77474 | 0.31 |
| Hexachloroethane | VOC | 67721 | 10 |
| Hexamethylene Diisocyanate | VOC | 822060 | 0.010 |
| Hexamethylphosphoramide | VOC | 680319 | 10 |

TABLE 1B TO APPENDIX A OF SUBPART A—REPORTING THRESHOLDS BY POLLUTANT FOR HAZARDOUS AIR POLLUTANTS FOR TREATMENT AS POINT SOURCE—Continued

| Description | Associated CAPs ¹ | Pollutant code ² | Actual emissions initial threshold (short tons/year) |
|--|------------------------------|-----------------------------|--|
| Hexane | VOC | 110543 | 10 |
| Hydrazine | | 302012 | 3.8E-04 |
| Hydrochloric Acid | | 7647010 | 10 |
| Hydrogen Fluoride | | 7664393 | 7.8 |
| Hydroquinone | VOC | 123319 | 10 |
| Isophorone | VOC | 78591 | 10 |
| Lead | PM | 7439921 | 0.074 |
| Lindane (all isomers) | VOC | See Table 1D | 0.0015 |
| Maleic Anhydride | VOC | 108316 | 0.64 |
| Manganese | PM | 7439965 | 0.16 |
| Mercury Compounds | PM | See Table 1D | 0.0026 |
| Methanol | VOC | 67561 | 10 |
| Methyl Bromide | VOC | 74839 | 10 |
| Methyl Chloride | VOC | 74873 | 10 |
| Methyl Chloroform | | 71556 | 10 |
| Methyl Iodide | VOC | 74884 | 10 |
| Methyl Isobutyl Ketone | VOC | 108101 | 10 |
| Methyl Isocyanate | VOC | 624839 | 1.1 |
| Methyl Methacrylate | VOC | 80626 | 10 |
| Methyl Tert-Butyl Ether | VOC | 1634044 | 5.3 |
| Methylene Chloride | | 75092 | 10 |
| Methylhydrazine | VOC | 60344 | 10 |
| Naphthalene | VOC | 91203 | 0.027 |
| Nickel Compounds | PM | See Table 1D | 0.0021 |
| Nitrobenzene | VOC | 98953 | 0.076 |
| N,N-Dimethylaniline | VOC | 121697 | 10 |
| N-Nitrosodimethylamine | VOC | 62759 | 3.5E-04 |
| N-Nitrosomorpholine | VOC | 59892 | 6.6E-04 |
| o-Toluidine | VOC | 95534 | 0.058 |
| p-Dioxane | VOC | 123911 | 0.40 |
| p-Phenylenediamine | VOC | 106503 | 10 |
| Parathion | VOC | 56382 | 10 |
| Pentachloronitrobenzene | VOC | 82688 | 10 |
| Pentachlorophenol | VOC | 87865 | 1.7 |
| Phenol | VOC | 108952 | 10 |
| Phosgene | VOC | 75445 | 0.48 |
| Phosphine | | 7803512 | 0.16 |
| Phosphorus | PM | 7723140 | 10 |
| Phthalic Anhydride | VOC | 85449 | 10 |
| Polychlorinated Biphenyls | VOC | See Table 1D | 0.29 |
| Polycyclic Organic Matter: Polycyclic aromatic compounds (includes 25 specific compounds). | VOC | N590 | 0.027 |
| 1,6-Dinitropyrene | VOC | 42397648 | 0.0011 |
| 1,8-Dinitropyrene | VOC | 42397659 | 0.0025 |
| 1-Nitropyrene | VOC | 5522430 | 0.028 |
| 3-Methylcholanthrene | VOC | 56495 | 4.70E-04 |
| 4-Nitropyrene | VOC | 57835924 | 0.028 |
| 5-Methylchrysene | VOC | 3697243 | 0.0025 |
| 6-Nitrochrysene | VOC | 7496028 | 0.0011 |
| 7,12-Dimethylbenz[a]anthracene | VOC | 57976 | 4.90E-05 |
| 7H-Dibenzo[c,g]carbazole | VOC | 194592 | 0.0025 |
| Benz[a]anthracene | VOC | 56553 | 0.028 |
| Benzo[a]phenanthrene (Chrysene) | VOC | 218019 | 0.31 |
| Benzo[a]pyrene | VOC | 50328 | 0.0025 |
| Benzo[b]fluoranthene | VOC | 205992 | 0.028 |
| Benzo[j,k]fluorene (Fluoranthene) | VOC | 206440 | 0.027 |
| Benzo[j]fluoranthene | VOC | 205823 | 0.028 |
| Benzo[k]fluoranthene | VOC | 207089 | 0.31 |
| Dibenz[a,h]acridine | VOC | 226368 | 0.028 |
| Dibenz[a,j]acridine | VOC | 224420 | 0.028 |
| Dibenzo[a,e]fluoranthene | VOC | 5385751 | 0.027 |
| Dibenzo[a,e]pyrene | VOC | 192654 | 0.0025 |
| Dibenzo[a,h]anthracene | VOC | 53703 | 0.0025 |
| Dibenzo[a,h]pyrene | VOC | 189640 | 0.0011 |
| Dibenzo[a,i]pyrene | VOC | 189559 | 0.0011 |
| Dibenzo[a,l]pyrene | VOC | 191300 | 0.0011 |
| Indeno[1,2,3-c,d]pyrene | VOC | 193395 | 0.028 |
| Polycyclic Organic Matter, other than N590: | | | |

TABLE 1B TO APPENDIX A OF SUBPART A—REPORTING THRESHOLDS BY POLLUTANT FOR HAZARDOUS AIR POLLUTANTS FOR TREATMENT AS POINT SOURCE—Continued

| Description | Associated CAPs ¹ | Pollutant code ² | Actual emissions initial threshold (short tons/year) |
|----------------------------|------------------------------|-----------------------------|--|
| PAH, total ⁴ | VOC | 130498292 | 0.027 |
| PAH/POM—Unspecified | VOC | 250 | 0.027 |
| Other POM | VOC | See Table 1D | 10 |
| 1-Methylnaphthalene | VOC | 90120 | 0.027 |
| 1-Methylphenanthrene | VOC | 832699 | 0.027 |
| 1-Methylpyrene | VOC | 2381217 | 0.027 |
| 12-Methylbenz(a)Anthracene | VOC | 2422799 | 0.027 |
| 2-Chloronaphthalene | VOC | 91587 | 0.027 |
| 2-Methylnaphthalene | VOC | 91576 | 0.027 |
| 2-Methylphenanthrene | VOC | 2531842 | 0.027 |
| 2-Nitrofluorene | VOC | 607578 | 0.31 |
| 5-Nitroacenaphthene | VOC | 602879 | 0.027 |
| 9-Methyl anthracene | VOC | 779022 | 0.027 |
| Acenaphthene | VOC | 83329 | 0.027 |
| Acenaphthylene | VOC | 208968 | 0.027 |
| Anthracene | VOC | 120127 | 0.027 |
| Benzo(a)fluoranthene | VOC | 203338 | 0.027 |
| Benzo(c)phenanthrene | VOC | 195197 | 0.027 |
| Benzo(g,h,i)fluoranthene | VOC | 203123 | 0.027 |
| Benzo[e]pyrene | VOC | 192972 | 0.027 |
| Benzo[g,h,i]perylene | VOC | 191242 | 0.027 |
| Benzofluoranthene | VOC | 56832736 | 0.027 |
| Benzo[phenanthrene | VOC | 195197 | 0.027 |
| Carbazole | VOC | 86748 | 0.31 |
| Coal Tar | VOC | 8007452 | 0.0035 |
| Fluorene | VOC | 86737 | 0.027 |
| Indeno[1,2,3-c,d]Pyrene | VOC | 193395 | 0.028 |
| Methylantracene | VOC | 26914181 | 0.027 |
| Methylbenzopyrene | VOC | 65357699 | 0.027 |
| Methylchrysene | VOC | 41637905 | 0.0025 |
| Perylene | VOC | 198550 | 0.027 |
| Phenanthrene | VOC | 85018 | 0.027 |
| Pyrene | VOC | 129000 | 0.027 |
| Propionaldehyde | VOC | 123386 | 5.7 |
| Propoxur | VOC | 114261 | 10 |
| Propylene Dichloride | VOC | 78875 | 10 |
| Propylene Oxide | VOC | 75569 | 1.3 |
| Quinoline | VOC | 91225 | 10 |
| Quinone | VOC | 106514 | 10 |
| Selenium | PM | 7782492 | 10 |
| Styrene | VOC | 100425 | 10 |
| Styrene oxide | VOC | 96093 | 10 |
| Tetrachloroethylene | | 127184 | 7.7 |
| Titanium Tetrachloride | | 7550450 | 0.22 |
| Toluene | VOC | 108883 | 10 |
| Toluene-2,4-Diamine | VOC | 95807 | 0.010 |
| Toxaphene | VOC | 8001352 | 0.0084 |
| Trichloroethylene | VOC | 79016 | 0.48 |
| Triethylamine | VOC | 121448 | 9.5 |
| Trifluralin | VOC | 1582098 | 10 |
| Vinyl Acetate | VOC | 108054 | 10 |
| Vinyl Bromide | VOC | 593602 | 0.79 |
| Vinyl Chloride | VOC | 75014 | 0.43 |
| Vinylidene Chloride | VOC | 75354 | 10 |
| Xylenes | VOC | See Table 1D | 10 |

¹ For pollutants denoted with "PM," incidental CAPs include at least primary PM₁₀ and PM_{2.5} and filterable PM₁₀ and PM_{2.5}.

² The pollutant code is usually the Chemical Abstracts Service (CAS) code but is otherwise assigned for use in reporting to EPA.

³ Report as Chromium (VI), converting mass when emissions value represents compound mass rather than chromium mass.

⁴ If total PAH or any combination of individual PAH exceeds the total PAH reporting threshold or any individual PAH compound exceeds its reporting threshold, then all individual PAHs as well as total PAH must be reported.

TABLE 1C TO APPENDIX A OF SUBPART A—APPLICABLE PRIMARY NAICS CODES TO IDENTIFY NON-MAJOR SOURCES FOR POINT SOURCE REPORTING

| NAICS ¹ | Description |
|--|--|
| 21xxxx, 22xxxx, 3xxxx 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. |
| 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. ² |
| 8122xx | Death Care Services. |
| 812332 | Industrial Launderers. |
| 92214x | Correctional Institutions. |
| 927xxx | Space Research and Technology. |
| 928xxx | National Security and International Affairs. |

¹ Based on 2017 NAICS codes. The “x” values represent all NAICS codes starting with the digits preceding the “x” values.

² Excluding small entities for primary NAICS 811121.

TABLE 1D—TO APPENDIX A OF SUBPART A—POLLUTANTS TO REPORT FOR COMPOUND GROUPS

| Pollutant group | Component pollutant name | Associated CAPs | Pollutant code |
|---------------------------------|--|--------------------------------------|----------------|
| 2,4-D, salts and esters | 2,4-Dichlorophenoxy Acetic Acid | VOC | 94757 |
| | 2,4-D sodium salt | VOC | 2702729 |
| | 2,4-D diethanolamine salt | VOC | 5742198 |
| | 2,4-D dimethylamine salt | VOC | 2008391 |
| | 2,4-D isopropylamine salt | VOC | 5742176 |
| | 2,4-D triisopropanolammonium salt | VOC | 32341803 |
| | 2,4-D butoxyethyl ester | VOC | 1929733 |
| | 2,4-D 2-ethylhexyl ester | VOC | 1928434 |
| | 2,4-D isopropyl ester | VOC | 94111 |
| | 2,4-D butyl ester | VOC | 94804 |
| | 2,4-D propylene glycol butyl ether ester (2,4-D 2-butoxymethyl-ethyl ester). | VOC | 1320189 |
| | 2,4-D chlorocrotyl ester | VOC | 2971382 |
| | 2,4-D 2-ethyl-4-methylpentyl ester | VOC | 53404378 |
| | Cresol/Cresylic Acid (Mixed Isomers). | Cresol/Cresylic Acid (Mixed Isomers) | VOC | 1319773 |
| m-Cresol | | VOC | 108394 |
| o-Cresol | | VOC | 95487 |
| p-Cresol | | VOC | 106445 |
| Cyanide Compounds | Calcium Cyanamide | PM | 57125 |
| | Cyanide | PM | 156627 |
| Dioxins and Furans | Hydrogen Cyanide | PM | 74908 |
| | 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin | PM | 3268879 |
| | 1,2,3,4,6,7,8,9-Octachlorodibenzofuran | PM | 39001020 |
| | 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin | PM | 35822469 |
| | 1,2,3,4,6,7,8-Heptachlorodibenzofuran | PM | 67562394 |
| | 1,2,3,4,7,8,9-Heptachlorodibenzofuran | PM | 55673897 |
| | 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin | PM | 39227286 |
| | 1,2,3,4,7,8-Hexachlorodibenzofuran | PM | 70648269 |
| | 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin | PM | 57653857 |
| | 1,2,3,6,7,8-Hexachlorodibenzofuran | PM | 57117449 |
| | 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin | PM | 19408743 |
| | 1,2,3,7,8,9-Hexachlorodibenzofuran | PM | 72918219 |
| | 1,2,3,7,8-Pentachlorodibenzo-p-dioxin | PM | 40321764 |
| | 1,2,3,7,8-Pentachlorodibenzofuran | PM | 57117416 |
| | 2,3,4,6,7,8-Hexachlorodibenzofuran | PM | 60851345 |
| | 2,3,4,7,8-Pentachlorodibenzofuran | PM | 57117314 |
| | 2,3,7,8-Tetrachlorodibenzo-p-dioxin | PM | 1746016 |
| 2,3,7,8-Tetrachlorodibenzofuran | PM | 51207319 | |
| Fine Mineral Fibers | Fine Mineral Fibers | PM | 383 |
| | Ceramic Fibers (man-made fibers) | PM | 608 |
| | Glasswool (man-made fibers) | PM | 613 |

TABLE 1D—TO APPENDIX A OF SUBPART A—POLLUTANTS TO REPORT FOR COMPOUND GROUPS—Continued

| Pollutant group | Component pollutant name | Associated CAPs | Pollutant code |
|---|---|-----------------|----------------|
| Glycol Ethers | Slagwool (man-made fibers) | PM | 616 |
| | Rockwool (man-made fibers) | PM | 617 |
| | 1,2-Dimethoxyethane | VOC | 110714 |
| | 2-(Hexyloxy)Ethanol | VOC | 112254 |
| | 2-Butoxyethyl Acetate | VOC | 112072 |
| | 2-Propoxyethyl Acetate | VOC | 20706256 |
| | Butyl Carbitol Acetate | VOC | 124174 |
| | Carbitol Acetate | VOC | 112152 |
| | Cellosolve Acetate | VOC | 111159 |
| | Cellosolve Solvent | VOC | 110805 |
| | Diethylene Glycol Diethyl Ether | VOC | 112367 |
| | Diethylene Glycol Dimethyl Ether | VOC | 111966 |
| | Diethylene Glycol Ethyl Methyl Ether | VOC | 1002671 |
| | Diethylene Glycol-Mono-2-Methyl-Pentyl Ether | VOC | 10143563 |
| | Diethylene Glycol Monobutyl Ether | VOC | 112345 |
| | Diethylene Glycol Monoethyl Ether | VOC | 111900 |
| | Diethylene Glycol Monoisobutyl Ether | VOC | 18912806 |
| | Diethylene Glycol Monomethyl Ether | VOC | 111773 |
| | Ethoxytriglycol | VOC | 112505 |
| | Ethylene Glycol Diethyl Ether | VOC | 629141 |
| | Ethylene Glycol Methyl Ether | VOC | 109864 |
| | Ethylene Glycol Mono-2-Methylpentyl Ether | VOC | 10137969 |
| | Ethylene Glycol Mono-Sec-Butyl Ether | VOC | 7795917 |
| | Ethylene Glycol Monomethyl Ether Acetate | VOC | 110496 |
| | Ethylene Glycol Monophenyl Ether Propionate | VOC | 23495127 |
| | Glycol Ethers | VOC | 171 |
| | Isobutyl Cellosolve | VOC | 4439241 |
| | Methoxytriglycol | VOC | 112356 |
| | Methyl Cellosolve Acrylate | VOC | 3121617 |
| | N-Hexyl Carbitol | VOC | 112594 |
| | Phenyl Cellosolve | VOC | 122996 |
| | Propyl Cellosolve | VOC | 2807309 |
| | Triethylene Glycol Dimethyl Ether | VOC | 112492 |
| | Triglycol Monobutyl Ether | VOC | 143226 |
| | 1,2,3,4,5,6-Hexachlorocyclohexane (technical) (Mixed Isomers) | VOC | 608731 |
| | .alpha.-Hexachlorocyclohexane | VOC | 319846 |
| | .beta.-Hexachlorocyclohexane | VOC | 319857 |
| | .delta.-Hexachlorocyclohexane | VOC | 319868 |
| | .gamma.-Hexachlorocyclohexane (Lindane) | VOC | 58899 |
| | .epsilon.-Hexachlorocyclohexane | VOC | 6108107 |
| | .zeta.-Hexachlorocyclohexane | VOC | 6108118 |
| | .eta.-Hexachlorocyclohexane | VOC | 6108129 |
| .theta.-Hexachlorocyclohexane | VOC | 6108130 | |
| 1,2,3,4,5,6-Hexachlorocyclohexane (technical) (Mixed Isomers) | VOC | 608731 | |
| Mercury Compounds | Mercury | | 7439976 |
| | Elemental gaseous mercury | | 200 |
| | Gaseous divalent mercury | | 201 |
| | Particulate divalent mercury | PM | 202 |
| Nickel Compounds | Nickel | PM | 7440020 |
| | Nickel Oxide | PM | 1313991 |
| | Nickel Refinery Dust | PM | 604 |
| | Nickel Subsulfide | PM | 12035722 |
| Other POM | 1-Amino-2,4-dibromoanthraquinone | VOC | 81492 |
| | 1-Amino-2-methylantraquinone | VOC | 82280 |
| | 2-Aminoanthraquinone | VOC | 117793 |
| | 2-Phenylphenol | VOC | 90437 |
| | 3,3'-Dichlorobenzidine dihydrochloride | VOC | 612839 |
| | 3,3'-Dichlorobenzidine sulfate | VOC | 64969342 |
| | 3,3'-Dimethoxybenzidine dihydrochloride | VOC | 20325400 |
| | 3,3'-Dimethoxybenzidine monohydrochloride | VOC | 111984099 |
| | 3,3'-Dimethylbenzidine dihydrochloride | VOC | 612828 |
| | 3,3'-Dimethylbenzidine dihydrofluoride | VOC | 41766750 |
| | 4,4'-Diaminodiphenyl ether | VOC | 101804 |
| | 4,4'-Isopropylidenediphenol | VOC | 80057 |
| | 4,4'-Methylenebis(N,N-dimethyl)benzenamine (4,4'-Methylenebis[N,N-dimethylaniline]) | VOC | 101611 |
| | 4,4'-Thiodianiline | VOC | 139651 |
| | 4-Aminoazobenzene | VOC | 60093 |
| | Acifluorfen, sodium salt | VOC | 62476599 |
| | alpha-Naphthylamine (1-Naphthalenamine) | VOC | 134327 |
| | Amitraz | VOC | 33089611 |

TABLE 1D—TO APPENDIX A OF SUBPART A—POLLUTANTS TO REPORT FOR COMPOUND GROUPS—Continued

| Pollutant group | Component pollutant name | Associated CAPs | Pollutant code |
|---------------------------------|--|-----------------|----------------|
| | Benzoyl peroxide | VOC | 94360 |
| | beta-Naphthylamine (2-Naphthalenamine) | VOC | 91598 |
| | Bifenthrin | VOC | 82657043 |
| | C.I. Acid Green 3 | VOC | 4680788 |
| | C.I. Acid Red 114 | VOC | 6459945 |
| | C.I. Basic Green 4 (Malachite green) | VOC | 569642 |
| | C.I. Basic Red 1 | VOC | 989388 |
| | C.I. Direct Black 38 | VOC | 1937377 |
| | C.I. Direct Blue 218 | VOC | 28407376 |
| | C.I. Direct Blue 6 | VOC | 2602462 |
| | C.I. Direct Brown 95 | VOC | 16071866 |
| | C.I. Disperse Yellow 3 | VOC | 2832408 |
| | C.I. Food Red 15 (Rhodamine B) | VOC | 81889 |
| | C.I. Food Red 5 | VOC | 3761533 |
| | C.I. Solvent Orange 7 | VOC | 3118976 |
| | C.I. Solvent Yellow 14 | VOC | 842079 |
| | C.I. Solvent Yellow 3 | VOC | 97563 |
| | C.I. Solvent Yellow 34 (Auramine) | VOC | 492808 |
| | C.I. Vat Yellow 4 | VOC | 128665 |
| | Cyfluthrin | VOC | 68359375 |
| | Cyhalothrin | VOC | 68085858 |
| | Decabromodiphenyl oxide | VOC | 1163195 |
| | Desmedipham | VOC | 13684565 |
| | Dichlorophene | VOC | 97234 |
| | Diclofop methyl | VOC | 51338273 |
| | Dicofol | VOC | 115322 |
| | Diflubenzuron | VOC | 35367385 |
| | Diphenamid | VOC | 957517 |
| | Diphenylamine | VOC | 122394 |
| | Fenarimol | VOC | 60168889 |
| | Fenbutatin oxide | VOC | 13356086 |
| | Fenoxaprop-ethyl | VOC | 66441234 |
| | Fenoxycarb | VOC | 72490018 |
| | Fenpropathrin | VOC | 39515418 |
| | Fenvalerate | VOC | 51630581 |
| | Fluvalinate | VOC | 69409945 |
| | Fomesafen | VOC | 72178020 |
| | Hexachloronaphthalene | VOC | 1335871 |
| | Hexachlorophene | VOC | 70304 |
| | Hydramethylnon | VOC | 67485294 |
| | Lactofen | VOC | 77501634 |
| | Michler's ketone | VOC | 90948 |
| | Nitrofen | VOC | 1836755 |
| | N-Nitrosodiphenylamine | VOC | 86306 |
| | Octachloronaphthalene | VOC | 2234131 |
| | Oxyfluorfen | VOC | 42874033 |
| | Permethrin | VOC | 52645531 |
| | Phenolphthalein (3,3-Bis(4-hydroxyphenyl) phthalide) | VOC | 77098 |
| | Phenothrin | VOC | 26002802 |
| | Phenytoin | VOC | 57410 |
| | p-Nitrosodiphenylamine | VOC | 156105 |
| | Polybrominated biphenyls (PBBs) | VOC | N575 |
| | Quinalofop-ethyl | VOC | 76578148 |
| | Sodium o-phenylphenoxide | VOC | 132274 |
| | Temephos | VOC | 3383968 |
| | Tetrabromobisphenol A | VOC | 79947 |
| | Triphenyltin chloride | VOC | 639587 |
| | Triphenyltin hydroxide | VOC | 76879 |
| | Trypan blue | VOC | 72571 |
| | Warfarin and salts | VOC | N874 |
| Polychlorinated Biphenyls | 2,3,3',4,4',5/2,3,3',4,4',5-Hexachlorobiphenyl (PCBs156/157) | VOC | 38380084 |
| | 2,3,3',4,4'-Pentachlorobiphenyl (PCB-105) | VOC | 32598144 |
| | 2,3',4,4',5,5'-Hexachlorobiphenyl (PCB-167) | VOC | 52663726 |
| | 2,3,4,4',5-Pentachlorobiphenyl (PCB-114) | VOC | 74472370 |
| | 2,3',4,4',5-Pentachlorobiphenyl (PCB118) | VOC | 31508006 |
| | 2,4,4'-Trichlorobiphenyl (PCB-28) | VOC | 7012375 |
| | 2-Chlorobiphenyl (PCB-1) | VOC | 2051607 |
| | 3,3',4,4'-Tetrachlorobiphenyl (PCB-77) | VOC | 32598133 |
| | 4,4'-Dichlorobiphenyl (PCB-15) | VOC | 2050682 |
| | Decachlorobiphenyl (PCB-209) | VOC | 2051243 |
| | Heptachlorobiphenyl | VOC | 28655712 |

TABLE 1D—TO APPENDIX A OF SUBPART A—POLLUTANTS TO REPORT FOR COMPOUND GROUPS—Continued

| Pollutant group | Component pollutant name | Associated CAPs | Pollutant code |
|-----------------|---------------------------|-----------------|----------------|
| Xylenes | Hexachlorobiphenyl | VOC | 26601649 |
| | Nonachlorobiphenyl | VOC | 53742077 |
| | Octachlorobiphenyl | VOC | 55722264 |
| | Pentachlorobiphenyl | VOC | 25429292 |
| | Polychlorinated Biphenyls | VOC | 1336363 |
| | Tetrachlorobiphenyl | VOC | 26914330 |
| | m-Xylene | VOC | 108383 |
| | o-Xylene | VOC | 95476 |
| | p-Xylene | VOC | 106423 |
| | Xylenes (Mixed Isomers) | VOC | 1330207 |

All required, conditionally required, and limited optional data elements are included in this table. To access a website with the reporting formats and all available optional data elements, refer to § 51.5(g) and (h) of this subpart.

TABLE 2A—TO APPENDIX A OF SUBPART A—FACILITY INVENTORY DATA FIELDS FOR REPORTING EMISSIONS FROM POINT SOURCES, WHERE REQUIRED BY 40 CFR 51.15

| Data elements | Required (R) ¹ , Conditionally Required (C) or Optional (O) | | | |
|--|--|----------------------|----------------|----------------|
| | Point | Point (small entity) | Airports | Rail yards |
| State and County FIPS Code or Tribal Code. ² | R | R | R | R |
| Facility Site Identifier | R | R | R | R |
| Small Entity Type | O | ³ R | | |
| Unit Identifier | R | R | R | R |
| Emission Process Identifier | R | O | R | R |
| Process Status Code and Process Status Code Year | R | O | | |
| Release Point Identifier | R | O | R | R |
| Facility Site Name | R | R | R | R |
| Physical Address (Location Address, Locality Name, State and Postal Code) | R | R | R | R |
| Facility Source Category Code | ³ R | ³ R | ³ R | ³ R |
| Facility air centroid coordinates (latitude, longitude, and datum). ⁴ | R | R | R | R |
| Title V operating permit identifier | ³ C | ³ C | ³ C | ³ C |
| Source Classification Code | R | O | R | R |
| Aircraft Engine Type Code | | | R | |
| Facility Site Status Code and Facility Site Status Year | R | R | R | R |
| Release point coordinates (latitude, longitude, and datum). ⁴ | ³ R | O | ³ R | ³ R |
| Fugitive release midpoint latitude and longitude. ⁴ | C | O | C | C |
| Release Point Height and Unit of Measure | C | O | C | C |
| Release Point Stack Diameter and Unit of Measure | C | O | | |
| Release Point Exit Gas Temperature | C | O | | |
| Release Point Exit Gas Velocity or Release Point Exit Gas Flow Rate and Unit of Measure | C | O | | |
| Release Point Width, Release Point Length, and Units of Measure | C | O | C | C |
| Release Point Status Code and Release Point Status Year | R | O | R | R |
| NAICS Code for Facility (5- or 6-digits) | R | R | R | R |
| NAICS Type (e.g., "PRIMARY", "SECONDARY", "TERTIARY") | C | C | C | C |
| Unit Design Capacity and Unit of Measure | C | C | O | C |
| Unit Type | R | R | R | R |
| Unit Status Code and Unit Status Year | R | R | R | R |
| Source Classification Code | R | O | R | R |
| Release Point Apportionment Identifier | O | O | | |
| Release Point Apportionment Control Status | C | O | | |
| Release Point Apportionment Site Path | C | O | | |
| Release Point Apportionment Percent | R | O | | |
| Release Point Type Code | R | O | | |
| Regulatory Code, Regulation Start Year, and Regulation End Year (as applicable and limited to those point sources with State or EPA permits) | ³ R | ³ R | ³ R | ³ R |
| Agency Regulation Description (when providing agency regulations not covered by an available regulatory code) | ³ C | ³ C | ³ C | ³ C |
| Control Identifier | ⁵ C | O | | |
| Control Measure Code | ⁵ C | O | | |
| Control Status Code and Control Status Year | ⁵ C | | | |
| Control Pollutant Code | ⁵ C | O | | |
| Control Measure Percent Pollutant Reduction Efficiency | ⁵ C | O | | |
| Control Percent Effectiveness | ⁵ C | | | |
| Site Path Name | ⁵ C | O | | |
| Site Path Identifier | ⁵ C | O | | |

TABLE 2A—TO APPENDIX A OF SUBPART A—FACILITY INVENTORY DATA FIELDS FOR REPORTING EMISSIONS FROM POINT SOURCES, WHERE REQUIRED BY 40 CFR 51.15—Continued

| Data elements | Required (R) ¹ , Conditionally Required (C) or Optional (O) | | | |
|--|--|----------------------|----------|------------|
| | Point | Point (small entity) | Airports | Rail yards |
| Site Path Percent Effectiveness | ⁵ C | ..... | ..... | ..... |
| Site Path Pollutant Code | ⁵ C | ..... | ..... | ..... |
| Site Path Control Measure Percent Reduction | ⁵ C | ..... | ..... | ..... |
| Site Path Definition (Control Identifier(s) and/or Path Identifier(s), Sequence Number(s), and Site Path Average Percent Apportionment(s)) | ⁵ C | ..... | ..... | ..... |

¹ Facility inventory data elements need only be reported once to the EIS and then revised if needed. They do not need to be reported for each triennial or annual emissions inventory.

² Facilities meeting the definition of portable facilities should be reported by State using county code “777”. In this case, facilities are exempt from reporting facility air centroid coordinates and release point coordinates.

³ Starting with the 2026 inventory year reports.

⁴ Only datum WGS84 and NAD83 are allowed.

⁵ Data are required when a control measure is present.

All required, conditionally required, and limited optional data elements are included in this table. To access a website with the reporting formats and all available optional data elements, refer to § 51.5(g) and (h) of this subpart.

TABLE 2B—TO APPENDIX A OF SUBPART A—DATA FIELDS FOR REPORTING EMISSIONS FROM POINT, NONPOINT, ONROAD MOBILE AND NONROAD MOBILE SOURCES, WHERE REQUIRED BY 40 CFR 51.15

| Data elements | Required (R), Conditionally Required (C), Optional (O), or Facility Total (F) | | | | |
|---|---|----------------------|----------------|--------|---------|
| | Point, airports, railyards | Point (small entity) | Nonpoint | Onroad | Nonroad |
| Emissions Reporting Period | R | R | R | R | R |
| Reporting Period Type (e.g., Annual) | R | R | R | R | R |
| Emission Operating Type (e.g., Routine) | R | R | ..... | ..... | ..... |
| State and County FIPS Code or Tribal Code | ¹ C | ¹ C | R | R | R |
| Facility Identifier | R | R | ..... | ..... | ..... |
| Unit Identifier | R | R | ..... | ..... | ..... |
| Emission Process Identifier ¹ | R | O | ..... | ..... | ..... |
| Shape Identifiers (for commercial marine vessels) ..... | ..... | ..... | C | ..... | ..... |
| Source Classification Code ..... | ..... | ..... | R | R | R |
| Emission Calculation Method | R | R | R | ..... | ..... |
| Emission Factor (Value, Unit of Measure) | R | O | R | ..... | ..... |
| Emission Factor Comment | ² C | O | ..... | ..... | ..... |
| Throughput (Value, Material, Unit of Measure, and Type) .. | R | O | R | R | ..... |
| Fuel Use for combustion processes, if not included as throughput (Value, Unit of Measure) | C | O | ..... | ..... | ..... |
| Pollutant Code | R | R | R | R | R |
| Annual Emissions and Unit of Measure | R | F | R | R | R |
| Control Measure Code ..... | ..... | ..... | ³ C | ..... | ..... |
| Control Pollutant Code ..... | ..... | ..... | ³ C | ..... | ..... |
| Percent Control Measures Reduction Efficiency ..... | ..... | ..... | ³ C | ..... | ..... |
| Percent Control Approach Effectiveness ..... | ..... | ..... | ³ C | ..... | ..... |
| Percent Control Approach Penetration ..... | ..... | ..... | ³ C | ..... | ..... |
| Emissions Documentation Citation ..... | ..... | ..... | R | R | R |
| Emissions Documentation Attachment ..... | ..... | ..... | R | R | R |

¹ When using State, local, or tribal identifiers, rather than the unique EIS facility, unit, and emission process identifiers, the State/county FIPs code or tribal code must be included with the State, local, or tribal facility identifier, unit identifier and emission process identifiers and all codes must match those provided in the Facility Inventory (Table 2A).

² Starting with 2026 inventory year, required when Emissions Calculation Method indicates use of speciation profile and when a source test or continuous emissions monitor value is available but not used.

³ Data are required when a control measure is present.

All required data elements are included in this table. To access a website with the reporting formats and all available optional data elements, refer to § 51.5(g) and (h) of this subpart.

TABLE 2C—TO APPENDIX A OF SUBPART A—DATA FIELDS FOR REPORTING FUEL USE FOR SMALL GENERATING UNITS, WHERE REQUIRED BY 40 CFR 51.15(a)(3) AND 40 CFR 51.27(b)(2)

| Date elements | Required (R), Conditionally Required (C) or Optional (O) | |
|---|--|----------------------|
| | Point, airports, railyards | Point (small entity) |
| Emissions Reporting Period | R | O |
| Reporting Period Type (Daily) | R | O |
| State and County FIPS Code or Tribal Code | ¹ C | O |
| Facility Site Identifier | R | O |
| Unit Identifier | R | O |
| Emission Process Identifier | R | O |
| Date of activity | R | O |
| Activity: Fuel Used or Heat Input on date | R | O |
| Activity unit of measure | R | O |
| Start hour of operation | O | O |
| End hour of operation | O | O |

¹ When using State, local, or tribal identifiers, rather than the unique EIS facility, unit, and emission process identifiers, the State/county FIPs code or tribal code must be included with the State, local, or tribal facility identifier, unit identifier and emission process identifiers and all codes must match those provided in the Facility Inventory (Table 2A).

All required and selected optional data elements are included in this table. To access a website with the reporting formats and all available optional data elements, refer to § 51.5(g) of this subpart.

TABLE 3—TO APPENDIX A OF SUBPART A—DATA FIELDS FOR REPORTING DATA FROM EVENT SOURCES, WHERE REQUIRED BY 40 CFR 51.15

| Data elements | Required (R), Conditionally Required (C) or Optional (O) |
|---|--|
| Emissions Reporting Period | R |
| Event Identifier | R |
| Event Date | R |
| State and County FIPS Code or Tribal Code | R |
| Event latitude and longitude centroid for date | R |
| Source classification code | R |
| Fuel loading per acre and unit of measure | O |
| Fuel moisture and unit of measure (any or all of 1-hr, 10-hr, 100-hr, and 1000-hr values) | O |
| Emission reduction technique | O |
| Burn perimeter geographic information system shape | O |
| For broadcast or understory burns: | |
| Acres burned actual for date (if total planned acres and percent burned not provided) | C |
| Total planned acres for date (if acres burned not provided) | C |
| Percent burned for date (if total planned acres provided) | C (if total planned acres provided) |
| For pile burns: | |
| Affected acres | C |
| Number of hand piles per acre | C |
| Number of machine piles per acre | C |
| Average height and diameter of hand piles | O |
| Average height and diameter of machine piles | O |