



Proposed Revisions to Air Emissions Reporting Requirements

State/Local/Tribal Focus on Nonpoint, Mobile, and Fires

August 22, 2023

Overview

- ▶ Current Air Emissions Reporting Requirements (AERR)
- ▶ Objectives of AERR proposed revisions
- ▶ 9 major parts of the proposed AERR revisions
- ▶ Overview of selected parts of proposal relating to states, locals, and some tribes (SLT) reporting for nonpoint, mobile, and fires
- ▶ Q&A



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What is the AERR Currently?

- ▶ The AERR is an EPA regulation (40 CFR 51, Subpart A) that requires states, local agencies¹, and some tribes² (SLTs) to report annual air emissions data of criteria pollutants
- ▶ Requires reporting of criteria pollutants and precursors (CAPs):
 - ▶ Carbon monoxide (CO), nitrogen oxides (NO_x), volatile organic compounds (VOC), sulfur dioxide (SO₂), ammonia (NH₃), particulate matter (PM) ≥ 10 and 2.5 microns in diameter (PM₁₀ and PM_{2.5}), and Lead (Pb)
 - ▶ Certain sources of emissions are reported as “point sources” - At each such facility, emissions are required to be reported as emissions releases within the facility
 - ▶ Other emissions sources as nonpoint, on-road mobile, or nonroad mobile (all as county totals or input data to emissions models)
- ▶ Voluntary reporting of hazardous air pollutant (HAP) emissions, prescribed burning, and wildfire data
- ▶ EPA uses the data from SLTs and other resources to create the National Emissions Inventory (NEI)
- ▶ The AERR additionally provides requirements for how SLTs must compile inventories for State Implementation Plans (SIPs)

¹ States may delegate reporting authority to local agencies

² For tribes with Treatment as a State (TAS) for emissions inventory reporting

The National Emissions Inventory (NEI)

- ▶ The NEI supports many programs and activities:



Proposed AERR Updates

- ▶ EPA published proposed updates to the AERR on August 9, 2023
- ▶ Primary objectives of the proposal:
 - ▶ Ensure that EPA has sufficient information to identify and solve air quality and exposure problems to support and carry out provisions of the Clean Air Act
 - ▶ Ensure that communities have data they can use to understand significant environmental risks that may impact them
 - ▶ Various administrative and procedural updates

AERR Proposed Revisions – 9 Major Parts

All Reporters:

1. (a) Changes, additions, and clarifications to point source reporting, and (b) including new data collection about small generating units
2. Clarifies that data submitted are “emissions data” and not entitled to confidential treatment

Owners/operators:

3. Requirements for (a) annual reporting of HAP emissions for certain facilities within states and (b) provisions to reduce burden on small entities
4. Requirements for annual reporting of emissions and other data for certain facilities outside of the geographic scope of a SLT’s implementation planning authority
5. Requirement for owners/operators to use electronic reporting to submit certain source tests

SLTs:

6. Optional HAP reporting for point sources on behalf of owners/operators (with EPA approval)
7. Requirement to report prescribed burning activity information
8. Additions and changes for (a) nonpoint (county-wide) sources and (b) mobile sources
9. Clarifications for using AERR for SIP inventory requirements

Affects
SLTs

Today's
webinar

7. Current AERR – Fires / Events

- ▶ Under the current AERR, SLTs voluntarily report prescribed burning and wildfire information, which informs EPA's emissions estimation based on satellite detection and US Forest Service (USFS) Bluesky and SMARTFIRE
- ▶ While adequate databases exist for wildfires, little data exist for many states with significant prescribed burning activity
- ▶ USFS indicates prescribed burning is expected to greatly increase in coming years

7. Proposed Requirement for SLTs to Report Prescribed Burning Activity Information

- ▶ Proposal would require SLTs to report activity data for certain prescribed burning, excluding agricultural burning
- ▶ Urges coordination with state forestry agencies
- ▶ Allows for continued voluntary reporting of wildfire daily activity data (or commenting on EPA data)
- ▶ Adds optional reporting of agricultural burning as daily fire activity (rather than current AERR requirement for reporting as nonpoint)

7. Proposed Requirement for Prescribed Burning – Details

- ▶ SLTs would report for burns occurring on state (private) lands or military land, excluding burns conducted by Federal Land Managers for:
 - ▶ A broadcast burn or understory burn impacting at least 50 acres
 - ▶ A pile burn that includes biomass from at least 25 acres
 - ▶ A prescribed burn that includes pile burning and other prescribed burning types that, in total, affects 25 acres
- ▶ Annual reporting starting with the 2026 inventory year to be reported by July 1, 2027
- ▶ Other information: proposed definitions, data to be collected, alternative start dates, and proposed reporting alternative

7. Prescribed Burning Proposed Requirements, Definitions and Alternatives

- ▶ *Prescribed burn* means prescribed burning as defined by 40 CFR 50.1:
 - ▶ *Prescribed fire* is any fire intentionally ignited by management actions in accordance with applicable laws, policies, and regulations to meet specific land or resource management objectives.
- ▶ *Agricultural burn* means the use of a prescribed fire to burn crop residue (proposed AERR, 40 CFR 51.50)
- ▶ Proposed alternative M1 would start reporting of prescribed burning activity data for the 2025 inventory year (1 year earlier than preferred alternative)
- ▶ Proposed alternative M2 would start reporting for the 2027 inventory year (1 year later than the preferred alternative)
- ▶ Proposed alternative M3 would be used instead of the preferred alternative to collect prescribed burning data by counties, dates, and/or months rather than by day and burning event

7. Prescribed Burning Proposed Requirements – Proposed Data Elements

- ▶ Proposed data elements for collection of prescribed burning reporting (see also proposed AERR, Appendix A, Table 3)
 - ▶ Date and event identifier
 - ▶ State and county code or tribal code
 - ▶ Latitude and longitude
 - ▶ Source classification code
 - ▶ For broadcast or understory burns: Acres burned actual (or total planned and percent burned)
 - ▶ For pile burns:
 - ▶ Affected acres
 - ▶ Number of hand piles per acre and associated average height and diameter
 - ▶ Number of machine piles per acre and associated average height and diameter
 - ▶ Optional: Fuel loading per acre, fuel moisture, emission reduction technique, burn scar geographic information system shape

8a. Current AERR - Nonpoint Sources

Proposal could affect these

- ▶ Triennial reporting
- ▶ Mandatory CAP emissions reporting for nonpoint
 - ▶ Optional nonpoint “survey” (widely used)
 - ▶ Can instead accept EPA data, and are encouraged to review and comment on model inputs (widely done)
 - ▶ Includes locomotives and commercial marine vessels
- ▶ Deadline December 31st of year after the inventory year (e.g., 12/31/2024 for 2023 inventory)

8a. Proposed AERR - Nonpoint Sources

- ▶ Triennial reporting (same as current AERR)
- ▶ Mandatory nonpoint “survey”
- ▶ Proposed reporting approach depends on:
 - ▶ Whether EPA provides an emissions estimation tool or not (e.g., Wagon Wheel, oil and gas tool, or spreadsheet approach)
 - ▶ Special cases for locomotives and commercial marine vessels
- ▶ Deadline changes
- ▶ Provisions for overlapping tribal and county boundaries

8a. Proposed AERR - Nonpoint Sources (continued)

- ▶ Nonpoint sources with EPA tools
 - ▶ Report tool inputs, or can review, comment, and/or accept EPA data, and
 - ▶ Can optionally report CAP emissions (and if do so, must include documentation)
- ▶ For locomotives and commercial marine vessels:
 - ▶ Can report CAP emissions (and if do so, must include documentation), or can review, comment, and/or accept EPA emissions data
- ▶ For nonpoint sources without EPA tools:
 - ▶ Some categories are important locally, so some SLTs have their own tools even if EPA does not have one (composting and silage are former examples)
 - ▶ Must report CAP emissions and documentation
 - ▶ Can optionally report HAP emissions (and if do so, must include documentation)

8a. Proposed Nonpoint Source Deadline Changes

- ▶ 12 months and 15 days after the end of the inventory year:
 - ▶ States must report emissions and documentation for sources without EPA tools
- ▶ 15 months after the end of the inventory year:
 - ▶ A state must report their nonpoint survey
- ▶ For sources with EPA tools, commercial marine vessels, and locomotives:
 - ▶ A state must report its nonpoint tool inputs (for EPA tools) within 30 days after EPA provides tool inputs to the state, or within the period defined by the EPA at time the tool inputs are provided, whichever is longer
 - ▶ When a state optionally provides nonpoint emissions for sources with EPA tools, a state must report that data and documentation within 60 days of EPA providing tool inputs to the state, or within a longer period defined by the EPA when the tool inputs are provided

8a. Proposed Provisions for Overlapping Tribal and County Boundaries

- ▶ An Indian tribe that reports nonpoint tool inputs and/or emissions for nonpoint (including commercial marine and locomotives) must report that data separately for each county that includes Indian country
- ▶ 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
- ▶ If a state is reporting tribal emissions instead of the tribe, no requirement to report separately for tribal boundaries

8b. Current AERR - Mobile Sources

- ▶ Triennial reporting
- ▶ Deadline December 31st of year after the inventory year (e.g., 12/31/2024 for 2023 inventory)
- ▶ Mandatory MOVES model inputs for onroad vehicles and nonroad equipment, except for California
- ▶ Can instead review, comment, and/or accept EPA–provided MOVES inputs
- ▶ California required to report emissions (since they do not use MOVES)

8b. Proposed AERR - Mobile Sources

- ▶ Maintains mandatory MOVES model inputs for onroad vehicles and nonroad equipment, except for California
 - ▶ Proposal lists minimum required MOVES inputs and allows for other inputs to be optional
 - ▶ Proposal says how to submit fuel information, which will not be used if included in MOVES inputs
 - ▶ No change: Can instead review, comment, and/or accept EPA-provided inputs
- ▶ California required to report CAP emissions
 - ▶ Using the latest version of EPA-approved California model
 - ▶ With documentation that describes the model inputs, use of the model, any options selected, post-processing steps, and quality assurance
 - ▶ And can optionally report HAP, greenhouse gases, or other pollutants

8b. Proposed AERR for Mobile Sources (continued)

- ▶ Minimum required MOVES inputs for review or submission:
 - ▶ A county database checklist
 - ▶ Vehicle miles traveled (by county and road type)
 - ▶ Vehicle population (by county, vehicle type, fuel type, and age)
- ▶ Optionally may provide:
 - ▶ Hourly average speed distribution by vehicle type, ideally different for weekday and weekend
 - ▶ Vehicle age distribution
 - ▶ Inspection and maintenance program information
 - ▶ Documentation
- ▶ Preamble: States may optionally send fuel data to the EPA at mobile@epa.gov

Summary of Proposed Deadlines – Nonpoint, Mobile, and Fires

Denotes voluntary

Denotes triennial (only)

Key

Data Category	Inventory year (IY):		
	2023	2026	2027
Nonpoint, <u>without</u> EPA Tools (emissions & doc.)	1/15/2025	1/15/2028	
Nonpoint survey	3/31/2025	3/31/2028	
Nonpoint, with EPA Tools (inputs)	30 days min	30 days min	
Nonpoint, with EPA Tools (emissions & doc.)	60 days min	60 days min	
Onroad/nonroad (inputs and CA emissions & doc.)	1/15/2025	1/15/2027	
Prescribed burns	1/15/2025	7/1/2027	7/1/2028
Wildfires and ag fires (voluntary)	1/15/2025	7/1/2027	7/1/2028

9. Clarifications for Using AERR for SIP Inventory Requirements – Nonpoint, Mobile, and Fires

- ▶ Addresses requirements of various other parts of 40 CFR 51 (e.g., ozone and PM2.5 SIP Requirements Rules) that reference AERR for certain requirements. Current AERR lacks clarity on several issues.
- ▶ Data required for SIP emissions inventories is not affected by certain AERR changes, should they be finalized. The following would not be required for SIP inventories under the proposal (point source information excluded):
 - ▶ Nonpoint survey
 - ▶ Nonpoint activity data (only emissions required for SIP inventories)
 - ▶ Additional nonpoint and mobile source documentation
 - ▶ Prescribed burning activity data (emissions required for SIP inventories)
 - ▶ Optional agricultural burning activity data (emissions required for SIP inventories)
- ▶ No provision of the AERR proposal would impact the year of an inventory required for a SIP

Planned AERR Roll-Out Information

Date/Time	Webinar Topic
Aug 3, 2-3:30 PM ET	Proposed Rulemaking for changes to the AERR, with a focus on point sources (for SLTs). Recording on NEI SharePoint.
Aug 17, 2-3:30 pm ET	Proposed Rulemaking for changes to the AERR (for Industry Stakeholders) Recording will be on NEI Sharepoint and available by request
Aug 22, 2-3:30 pm ET	Proposed Rulemaking for changes to the AERR, with a focus on fires, nonpoint and mobile sources (For SLTs)
Aug 24, 2-3:30 pm ET	Proposed Rulemaking for Changes to the AERR (for Small Businesses & Tribal Nations)
Aug 29, 2-3:30 pm ET	Proposed Rulemaking for Changes to the AERR (for Communities)
Aug 30, 10am-4pm ET	Public hearing

AERR Proposal Comments and Questions

- ▶ The proposal published in the Federal Register on August 9, 2023 <https://www.federalregister.gov/documents/2023/08/09/2023-16158/revisions-to-the-air-emissions-reporting-requirements>
- ▶ AERR website: <https://www.epa.gov/air-emissions-inventories/air-emissions-reporting-requirements-aerr>
- ▶ You may submit written comments through October 18, 2023
 - ▶ Comments can be sent via www.regulations.gov, docket ID EPA-HQ-OAR-2004-0489
 - ▶ Email and fax options are available in the preamble
- ▶ Clarifying questions can be sent to NEI_Help@epa.gov (Please include AERR in the subject line)

Questions?

Appendix

Clean Air Act Authorities

- ▶ EPA has authority to collect information under CAA Section 114(a)(1)

“For the purpose [of]...carrying out any provision of this chapter...the Administrator may require any person who owns or operates any emission source...[or] who the Administrator believes may have information necessary for the purposes set forth in this subsection...on a one-time, periodic or continuous basis to...establish and maintain such records...make such reports...install, use, and maintain such monitoring equipment...sample such emissions...[and] provide such other information as the Administrator may reasonably require.”

- ▶ EPA also has general rulemaking authority under CAA Section 301(a)(1)

“The Administrator is authorized to prescribe such regulations as are necessary to carry out his functions under this chapter.”

- ▶ EPA is using these authorities in conjunction with other statutory authorities for activities that need data collected by the AERR
- ▶ The data and information collected are used to support and carry out the provisions of the CAA

Drivers and Authorities Associated with AERR Data Uses

See Appendix slide for additional work supported by AERR proposed revision

Data Need and Use	Who	Support from:
Analyses in support of Air Toxics Regulatory Programs	EPA	CAA Sections 112(d)(6) CAA 112(f)(2); E.O. 12898
Source Category Listings	EPA	CAA 112
Photochemical modeling for OAR rulemakings and SIPs	EPA, States	CAA Sections 110; 172; 182; 189
Risk modeling in support of Integrated Risk Information System (IRIS) chemical nominations	EPA	CAA Sections 112(f)(2) and 112(d)(6)
Risk modeling in support of prioritization of resources for compliance and enforcement	EPA Regions, States	CAA 113 & 114(a),(b),(d)
Environmental justice	EPA	E.O. 12898