

# 2013 Emission Inventory Guidelines For Air Districts

California Air Resources Board  
Air Quality Planning and Science Division  
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## What data need to be reported to ARB?

The Air Resources Board (ARB) is responsible for developing annual statewide emission inventories based in part on data submitted by the Air Pollution Control and Air Quality Management Districts. ARB estimates emissions from mobile and natural (non-anthropogenic) sources and works cooperatively with you in developing emission estimates for aggregated point sources, area-wide sources, and some off-road mobile sources.

Local air districts are responsible for reporting emissions from all point sources and those area source categories considered as district categories. A list of area source categories, along with a designation of who is responsible for the data submittal, is available on the web at:

[http://www.arb.ca.gov/ei/areasrc/area\\_source\\_cats\\_may2014.xlsx](http://www.arb.ca.gov/ei/areasrc/area_source_cats_may2014.xlsx).

## Helpful tips for reporting point source data

For tracking purpose and consistency, please **DO NOT** change any existing facility IDs from one year to the next.

We have compiled latitude and longitude coordinates for most existing facilities in CEIDARS using district reported data, the Dunn & Bradstreet business directory, and available business information on the web. However, there are still facilities in CEIDARS without a name or address. Please provide all available geographic information, including coordinates if possible, for facilities reported to CEIDARS.

It is important that facilities' locations and **NOT** headquarter locations be reported under facility address because facilities' risks will be estimated based, partly, on the locations and the population surrounding the facilities. Risk will be much higher if a facility's reported coordinates place it in a populated area when it is actually located in a sparsely populated area.

Please provide correct and valid SIC/SCC combinations. Stationary aggregated point sources will be estimated based on the associated point sources using these combinations. Emissions from any invalid SIC/SCC combinations may be miscategorized or reconciled against incorrect source categories.

## When should my district report emissions inventory data to the ARB?

ARB is required by the Air Emission Reporting Requirements (AERR) Rule to submit annual emissions inventory data to U.S. EPA by December 31 of each year. Because of this, the deadline for submitting your district's 2013 inventory year data to ARB is August 1, 2014. We intend to publish your point source data on our website by January 2015.

## What is the timeline for inventory reporting?

Table 1 below lists the most important inventory milestones for the 2013 reporting year. District deadlines are shown in bold.

**Table 1: Inventory Milestones**

<b>Due Date</b>	<b>Task</b>	<b>Responsibility</b>
April 1, 2014	Create 2013 CEIDARS database.	ARB
<b>August 1, 2014</b>	<b>Submit 2013 point source updates and corrections to the ARB.</b>	<b>District</b>
<b>August 1, 2014</b>	<b>Submit 2013 area source updates grown and controlled to the ARB.</b>	<b>District</b>
October 3, 2014	Complete update of 2013 CEIDARS for submittals received as of August 1, 2014.	ARB
<b>October 3 – December 1, 2014</b>	<b>Review and QA period for the 2013 inventory.</b>	<b>ARB/District</b>
December 31, 2014	Submit 2013 inventory (major point sources) to U.S. EPA for the National Emission Inventory (NEI).	ARB

## What are the reporting requirements and thresholds?

### A. Point Sources

**Pollutants:** You must report emissions of criteria pollutants (CO, NO<sub>x</sub>, SO<sub>x</sub>, PM, and TOG) as well as lead (Pb), and ammonia (NH<sub>3</sub>). You have the option of also reporting ROG, VOC, PM<sub>10</sub>, and PM<sub>2.5</sub>; however, if you do not provide these emissions, we will estimate them based on your TOG and PM data.

The following table (Table 2) lists the most common pollutants reported to CEIDARS and their corresponding pollutant codes.

**Table 2 – Pollutant Codes**

Pollutant Code	Pollutant Name	Abbreviated Name
42101	Carbon Monoxide	CO
42603	Oxides of Nitrogen	NOx
42401	Oxides of Sulfur	SOx
11101	Particulate Matter	PM
85101	Particulate Matter 10 Microns or Less	PM10
88101	Particulate Matter 2.5 Microns or Less	PM2.5
16113	Reactive Organic Gases	ROG
43101	Total Organic Gases	TOG
43104	Volatile Organic Compounds	VOC
7664417	Ammonia	NH3
7439921	Lead	Pb

Criteria pollutant emissions should be reported in tons per year, except lead and ammonia where emissions must be reported in pounds per year. Emissions of toxic pollutants listed in Appendix A of the Air Toxics “Hot Spots” Program must also be reported in pounds per year. Please note that lead and ammonia are also on the AB2588 list.

If you report a facility’s criteria and toxics data as a merged transaction, please report lead and ammonia emissions only once. If you report criteria and toxics data separately, please include lead and ammonia in both reports. If the facility does not currently report toxics, please report lead (5 tons or more per year only) and ammonia emissions with criteria pollutants.

**Direct Particulate Emissions:** The Federal Clean Air Fine Particle Implementation Rule (40CFR, Part 51.1008) requires states to submit to U.S. EPA statewide emission inventories for direct PM2.5 emissions and emissions of PM2.5 precursors.

Direct PM2.5 emissions include both condensable and non-condensable (filterable) emissions. Non-condensable or filterable PM are particles that are directly emitted as a solid or liquid at stack or release point conditions and captured on the filter of a stack test train. Condensable PM is material that is in the vapor phase at stack conditions but condenses and/or reacts upon cooling and dilution in the ambient air to form a solid or a liquid particle immediately after discharge from the stack

In order to estimate direct PM2.5 emissions, the PM, PM10, and/or PM2.5 emissions reported to ARB should include both solid particles (non-condensable, filterable) and condensable particles. Use the above pollutant codes to report total direct particulate emissions

The U.S. EPA now requires states to also report non-condensable particulate emissions, where applicable. If the non-condensable particulate emissions for a source

are specifically known (e.g. source test), you may report them using the following pollutant codes:

- 11105:** PM (non-condensable only)
- 85105:** PM10 (non-condensable only)
- 88105:** PM2.5 (non-condensable only)

If you do not report non-condensable particulate emissions, they will be automatically calculated by U.S. EPA from total particulates using default factors.

**Important Note:** Total particulate emissions (11101, 85101, and/or 88101) should still be reported regardless of whether the non-condensable component is also reported.

**Reporting Thresholds and Frequency:** Every year, you should report emissions for all point sources in your district that emit 10 or more tons/year of criteria pollutants - CO, NOx, SOx, PM, TOG, or NH3. Please note that Pb has a reporting threshold of 5 tons/year.

Every three years, you should report criteria pollutant emissions for facilities that emit less than 10 tons per year. The reporting schedule and thresholds for point sources are provided in Table 3 below:

**Table 3: Reporting Schedule**

Source Type	Inventory Year				
	2013	2014	2015	2016	2017
Point Sources = or > 10 tons/year*	X	X	X	X	X
Point Sources < 10 tons/year		X			X

\*Reporting threshold for lead (Pb) is 5 tons/year

In addition, you should annually report toxic emissions from the following:

- High-risk facilities – those with a risk of 10 in a million or emitting 10 tons per year of any single hazardous air pollutants (HAP) or 25 tons per year of any combination of HAPs.
- Facilities required to report under the AB2588 Air Toxics “Hot Spots” Program.

**Reporting Format:** To facilitate updating of the CEIDARS database, you should report emissions using the CEIDARS 2.5 transaction format. Download a copy of CEIDARS 2.5 transaction format at <http://www.arb.ca.gov/app/emsinv/dist/doc/transfmt.pdf>. For point sources, you should submit all tables included in the transaction format file. For facilities reporting both criteria and toxic pollutants, you should provide emissions in

one merged submittal. If a facility is not in the toxic program, you do not need to report toxic emissions. Likewise, if a facility's only reason for reporting is to meet toxics reporting requirements, you do not need to report criteria emissions.

## B. Area Sources

**Pollutants:** You must report emissions of criteria pollutants (CO, NO<sub>x</sub>, SO<sub>x</sub>, PM, and TOG) as well as lead (Pb) and ammonia (NH<sub>3</sub>). You have the option of also reporting ROG, VOC, PM<sub>10</sub>, and PM<sub>2.5</sub>; however, if you do not provide these emissions, ARB will estimate them based on your TOG and PM data. We will also estimate toxics emissions for your area source categories by speciating TOG and PM data. As in the point sources, please report lead and ammonia emissions in pounds per year.

**Reporting Thresholds and Frequency:** You should update your area sources at least once every three years (see the reporting schedule in Table 3 for point sources emitting less than 10 tons/year), or update one third of your categories annually.

**Reporting Format:** To facilitate updating of the CEIDARS database, you should report emissions using the CEIDARS 2.5 transaction format available on the ARB Emission Inventory District Assistance website. For area sources, you need to submit only the "Process" and "Emission" tables included in the transaction format file.

## C. Control Data

**Control Factors:** You should develop and report control factors for each rule that has been adopted by your district. This information is used by ARB in developing emission projections that are published in the *California Almanac of Emissions and Air Quality*, as well as on the ARB website.

**Reporting Frequency:** To ensure that our emission projections properly reflect the benefits of your rules, we encourage you to provide control factors as soon as a rule is adopted or at least once a year as part of your CEIDARS submittal. If we do not receive control factors from your district, our projections assume no emission reductions for those categories.

**Reporting Format:** To facilitate updating of the California Emission Projection Analysis Model (CEPAM), please use the Excel template for reporting of control factor data to ARB. To obtain a copy of the reporting template, please contact Martin Johnson at (916) 324-5783 or [mjohnson@arb.ca.gov](mailto:mjohnson@arb.ca.gov).

## D. Growth Data

**Growth Factors:** ARB is continuously developing and updating a default set of growth factors for each source category in the emission inventory. This information is used by the ARB CEPAM program to develop emission projections for your district that are published in the *California Almanac of Emissions and Air Quality* as well as on the ARB website. At a minimum, you should review the projected emission estimates for your district's major source categories as found in the *Almanac* as well as the growth assumptions described in the *Almanac* and the *Area-Wide Source Methodologies*. You have the option of developing and providing your own set of growth factors for source categories under district responsibility. If you have any questions regarding the default growth factors applied to your district's emissions or would like to provide your own, please contact Gabe Ruiz at (916) 322-7673 or [gruiz@arb.ca.gov](mailto:gruiz@arb.ca.gov).

**Reporting Frequency:** We recommend that you review your growth data whenever you update a source category and provide the growth assumption updates as part of your annual CEIDARS submittal.

**Reporting Format:** To facilitate updating of CEPAM, please use the Excel template for reporting of growth data to ARB. To obtain a copy of the reporting template, please contact Martin Johnson at (916) 324-5783 or [mjohnson@arb.ca.gov](mailto:mjohnson@arb.ca.gov).

### How should my district report data to ARB?

We encourage you to report emission inventory data to us electronically using the CEIDARS transaction format as it will facilitate updating the CEIDARS database.

If your district is using the Hot Spots Analysis and Reporting Program (HARP), you can generate an output file in CEIDARS transaction format. The most recent version of HARP can be downloaded from the ARB website at:

<http://www.arb.ca.gov/toxics/harp/harp.htm> or a CD can be obtained by calling your CEIDARS Emission Inventory Liaison (see the ARB District Resources website at: <http://www.arb.ca.gov/ei/drei/maintain/districtliaisons.htm> for a list of the liaisons and their contact information or see the table at the end of these guidelines).

If your district is using an emission inventory database other than HARP, you should convert your data into the CEIDARS 2.5 transaction format and FTP the file to ARB. Please contact your CEIDARS Emission Inventory Liaison if you need assistance with this type of submittal.

## **What kind of QA process does ARB have to ensure my district's data are correct?**

ARB has a number of computerized quality assurance (QA) checks that are run to ensure the data you submit are accurate and reasonable. Following your data submittal in August, we will run these QA tests to ensure your data are valid. The QA tests are also available for district staff to use through the ARB District Resources website, <https://secure.arb.ca.gov/sslapp/emsinv/dist/>. (Note: You must login to access this secure website.)

## **Why do I need to submit data?**

State and federal legal mandates require us to compile the statewide emission inventory. These mandates include:

- State Health and Safety Code
- California Clean Air Act (CCAA) of 1988
- State Air Toxics "Hot Spots" Information and Assessment Act (AB2588) of 1988
- Federal Clean Air Act Amendments (CAAA) of 1990
- Federal Air Emissions Reporting Requirements (AERR) Rule of 2008

A more complete description of these mandates is available on the ARB District Resources website at: <http://www.arb.ca.gov/ei/drei/maintain/legalrequirements.pdf>.

Emission inventory data will be reported on our website, in the *California Almanac of Emissions and Air Quality*, and to the U.S. EPA as being year 2013 or earlier vintage. We encourage you to provide us with timely and complete data submittals.

## **What tools and assistance are available from ARB to help my district prepare and report emissions data?**

We have developed a suite of publications, software packages, and training programs to assist your district in developing and submitting emissions inventory data to us. These documents and tools are available through the District Resources for Emissions Inventory website at: <http://www.arb.ca.gov/ei/drei/drei.htm>.

The HARP software program, which includes the CEIDARS-Lite emission inventory module, can be downloaded from the ARB website at: <http://www.arb.ca.gov/toxics/harp/harp.htm>. A CD containing the program can be obtained by calling your CEIDARS Emission Inventory Liaison.

## How will the emissions data submitted by my district be used?

We will use your emission inventory data for many different programs, including:

- Developing air quality management plans
- Determining reasonable further progress (RFP)
- Developing potential control measures
- Analyzing new source impacts
- Determining control program effectiveness
- Predicting future air quality through modeling analyses
- Determining compliance of emissions sources
- Supporting environmental justice and neighborhood level assessments
- Publication in the Almanac of Emissions and Air Quality
- Performing neighborhood-level health risk assessments

In addition, we will be submitting your emissions data on an annual basis to the U.S. EPA for the National Emission Inventory (NEI) as required by the AERR Rule. We may also make your data available to the public through our website and various tools.

## Who is my CEIDARS emission inventory liaison?

The table listed below identifies the ARB emission inventory liaison for your district. If you have comments or questions about these guidelines or the emission inventory process, please give them a call.

AGENCY	ARB CONTACT	TELEPHONE	E-MAIL
Amador	Andy Delao	(916) 324-7169	<a href="mailto:adelao@arb.ca.gov">adelao@arb.ca.gov</a>
Antelope Valley	Jim Cao	(916) 322-7078	<a href="mailto:jcao@arb.ca.gov">jcao@arb.ca.gov</a>
Bay Area	Jagjeet Arce	(916) 322-7148	<a href="mailto:jarce@arb.ca.gov">jarce@arb.ca.gov</a>
Butte	Anna Komorniczak	(916) 327-8170	<a href="mailto:akomorni@arb.ca.gov">akomorni@arb.ca.gov</a>
Calaveras	Andy Delao	(916) 324-7169	<a href="mailto:adelao@arb.ca.gov">adelao@arb.ca.gov</a>
Colusa	Anna Komorniczak	(916) 327-8170	<a href="mailto:akomorni@arb.ca.gov">akomorni@arb.ca.gov</a>
El Dorado	Anna Komorniczak	(916) 327-8170	<a href="mailto:akomorni@arb.ca.gov">akomorni@arb.ca.gov</a>
Feather River	Anna Komorniczak	(916) 327-8170	<a href="mailto:akomorni@arb.ca.gov">akomorni@arb.ca.gov</a>
Glenn	Anna Komorniczak	(916) 327-8170	<a href="mailto:akomorni@arb.ca.gov">akomorni@arb.ca.gov</a>
Great Basin Unified	Andy Delao	(916) 324-7169	<a href="mailto:adelao@arb.ca.gov">adelao@arb.ca.gov</a>
Imperial	Jim Cao	(916) 322-7078	<a href="mailto:jcao@arb.ca.gov">jcao@arb.ca.gov</a>

Eastern Kern	Vivian Lerch	(916) 324-4478	<a href="mailto:vlerch@arb.ca.gov">vlerch@arb.ca.gov</a>
Lake	Jagjeet Arce	(916) 322-7148	<a href="mailto:jarce@arb.ca.gov">jarce@arb.ca.gov</a>
Lassen	Jagjeet Arce	(916) 322-7148	<a href="mailto:jarce@arb.ca.gov">jarce@arb.ca.gov</a>
Mariposa	Andy Delao	(916) 324-7169	<a href="mailto:adelao@arb.ca.gov">adelao@arb.ca.gov</a>
Mendocino	Jagjeet Arce	(916) 322-7148	<a href="mailto:jarce@arb.ca.gov">jarce@arb.ca.gov</a>
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Mojave	Jim Cao	(916) 322-7078	<a href="mailto:jcao@arb.ca.gov">jcao@arb.ca.gov</a>
Monterey Bay Unified	Vivian Lerch	(916) 324-4478	<a href="mailto:vlerch@arb.ca.gov">vlerch@arb.ca.gov</a>
North Coast Unified	Jagjeet Arce	(916) 322-7148	<a href="mailto:jarce@arb.ca.gov">jarce@arb.ca.gov</a>
Northern Sierra	Anna Komorniczak	(916) 327-8170	<a href="mailto:akomorni@arb.ca.gov">akomorni@arb.ca.gov</a>
Northern Sonoma	Jagjeet Arce	(916) 322-7148	<a href="mailto:jarce@arb.ca.gov">jarce@arb.ca.gov</a>
Placer	Anna Komorniczak	(916) 327-8170	<a href="mailto:akomorni@arb.ca.gov">akomorni@arb.ca.gov</a>
Sacramento Metro	Anna Komorniczak	(916) 327-8170	<a href="mailto:akomorni@arb.ca.gov">akomorni@arb.ca.gov</a>
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South Coast	Jim Cao	(916) 322-7078	<a href="mailto:jcao@arb.ca.gov">jcao@arb.ca.gov</a>
Tehama	Anna Komorniczak	(916) 327-8170	<a href="mailto:akomorni@arb.ca.gov">akomorni@arb.ca.gov</a>
Tuolumne	Andy Delao	(916) 324-7169	<a href="mailto:adelao@arb.ca.gov">adelao@arb.ca.gov</a>
Ventura	Andy Delao	(916) 324-7169	<a href="mailto:adelao@arb.ca.gov">adelao@arb.ca.gov</a>
Yolo-Solano	Anna Komorniczak	(916) 327-8170	<a href="mailto:akomorni@arb.ca.gov">akomorni@arb.ca.gov</a>
U.S. EPA	Chris Nguyen	(916) 322-7141	<a href="mailto:tnguyen@arb.ca.gov">tnguyen@arb.ca.gov</a>