

Criteria and Air Toxics Reporting: 2018 Data Summary

The emissions inventory is the foundation of the California Air Resources Board (CARB) programs. In an ongoing effort to provide, transparent, clear and accurate information, below is a summary of the stationary source (or stationary point) emissions reported during the 2018 data year.

Background

Database: CEIDARS (California Emissions Inventory Data Analysis and Reporting System) is a database management system developed to track statewide criteria pollutant and air toxic emissions. The database is divided into reporting years and stores discrete information for

- Stationary point: Stationary point sources are sources that can be identified by locations and are often permitted by local Air Quality Management Districts and Air Pollution Control Districts (Districts). Examples of stationary sources include facility point sources, such as power plants and oil refineries.
- Areawide: Areawide sources are those that do not have specific locations and are spread over large areas, such as consumer products and unpaved roads.
- Mobile: Mobile sources consists of on-road vehicles, such as passenger cars and trucks, motorcycles, busses, and heavy-duty trucks, and off-road sources, such as trains, ships, and boats.
- Natural sources: Natural sources are non-anthropogenic sources that include vegetation (biogenic), petroleum seeps, and wildfires.

Facility Search Engine: is a tool that can be used to query stationary point criteria and toxics emissions in a given inventory reporting year.

Data Collection: Districts are responsible for collecting all stationary point sources data and reporting it to CARB. Districts transfer emissions inventory data to CARB using the CEIDARS2.5 Transaction Format (CTF). There are thirteen types of transactions: one each for transferring facility, facility risk, stack, device, process, emission, excess emission, supplemental, building, building point, property, property data, and receptor data. Once CARB staff has received a CTF, the file is then checked for quality control issues and uploaded into CEIDARS.

The emissions inventory development is an ongoing process and as new information becomes available, methodologies and models are improved. The Facility Search Engine reflects a snapshot of the CEIDARS inventory at specific date and time.

2018 Data Summary

The majority of stationary point data comes from sources that have an air district permit. In general, each air emitting activity or source, is issued a permit. For this reason, smaller sources (e.g., gas stations or dry cleaning operations) may only have a

single permit to operate, while a larger source, such as a refinery, may have over 1,000 permits.

Table 1 summarizes the stationary source inventory submittals, by air district, for criteria pollutants and air toxics reporting.

Table 1: Number of Facilities Reporting Criteria Pollutants and/or Air Toxics Emissions for 2018, by District

District	Facilities Reporting Criteria Pollutants	Facilities Reporting Air Toxics	Total Unique Facilities Reported
Amador County APCD	11	0	11
Antelope Valley AQMD	278	213	281
Bay Area AQMD	9,694	8,775	9,704
Butte County AQMD	458	302	515
Calaveras County APCD	1	0	1
Colusa County APCD	72	65	74
Eastern Kern APCD	20	11	21
El Dorado County AQMD	432	0	432
Feather River AQMD	205	181	206
Glenn County APCD	148	6	148
Great Basin Unified APCD	23	12	23
Imperial County APCD	32	11	32
Lake County AQMD	34	37	49
Lassen County APCD	6	6	7
Mariposa County APCD	6	0	6
Mendocino County AQMD	3	75	78
Modoc County APCD	1	1	1
Mojave Desert AQMD	725	446	746
Monterey Bay Air Resources District	45	258	288
North Coast Unified AQMD	273	259	274
Northern Sierra AQMD	21	2	21
Northern Sonoma County APCD	20	13	20
Placer County APCD	613	211	638
Sacramento Metropolitan AQMD	63	20	64
San Diego County APCD	1,331	194	1,333
San Joaquin Valley APCD	7,229	5,414	7,310
San Luis Obispo County APCD	447	397	559
Santa Barbara County APCD	646	621	648
Shasta County AQMD	119	29	121
Siskiyou County APCD	2	1	2
South Coast AQMD	1,626	1,315	1,626
Tehama County APCD	64	56	104

District	Facilities Reporting Criteria Pollutants	Facilities Reporting Air Toxics	Total Unique Facilities Reported
Tuolumne County APCD	8	0	8
Ventura County APCD	240	472	615
Yolo-Solano AQMD	745	90	745
Total	25,641	19,493	26,711

As indicated by Table 1, the larger the population center, generally, the larger amount of stationary sources reported (e.g., the San Francisco Bay Area has the most sources). To further explore this, a metric that expands on this concept is to compare sources reported to the population of an air district. As a case study, consider the greater Sacramento Valley, which consists of the Sacramento Metropolitan, Yolo-Solano, Feather River, Placer and El Dorado Air Quality Management Districts/Air Pollution Control Districts. Table 2 shows the total number of facilities reported, the population of the district and the facilities reported per 100,000 people.

Table 2: Total Number of Facilities Reported

Air District	Sac Metro	Yolo-Solano	Placer	Feather River	El Dorado
Total facilities with reported emissions	64	745	638	206	432
2018 Population	1,537,386	360,162	389,278	178,763	189,360
Number of facilities reporting emissions per 100,000 residents	4	207	164	115	228

With the recent adoption of the Criteria Pollutant and Air Toxics Reporting Regulation, the number of facilities reported by all districts should increase.

Another way to summarize data is by sector, or category. Table 3 breaks down the types of stationary sources that are included in each category, along with the number of processes associated with each category. A process is a type of activity that produces emissions (e.g. flaring, internal combustion, heating, painting, gravel screening, breathing loss, vehicle fueling, spillage, solvent cleaning, etc.).

Table 3: Stationary Sources by Category

Category (#Processes from 2018)	Stationary Sources
Fuel Combustion (18,717)	Electrical Utilities
	Cogeneration
	Oil and Gas Production (Combustion)
	Petroleum Refining (Combustion)
	Manufacturing and Industrial

Category (#Processes from 2018)	Stationary Sources
Fuel Combustion (18,717)	Food and Agricultural Processing
	Service and Commercial
	Other (Fuel Combustion)
Waste Disposal (1,495)	Sewage Treatment
	Landfills
	Incinerators
	Soil Remediation
	Other (Waste Disposal)
Cleaning and Surface Coatings (10,954)	Laundering
	Degreasing
	Coatings and Related Process Solvents
	Printing
	Adhesives and Sealants
	Other (Cleaning and Surface Coatings)
Petroleum Production and Marketing (20,595)	Oil and Gas Production
	Petroleum Refining
	Petroleum Marketing
	Other (Petroleum Production and Marketing)
Industrial Processes (11,662)	Chemical
	Food and Agriculture
	Mineral Processes
	Metal Processes
	Wood and Paper
	Glass and Related Products
	Electronics
	Other (Industrial Processes)
Miscellaneous Processes (242)	Farming Operations
	Unpaved Road Dust
	Cooking
	Other Miscellaneous Processes
Other Mobile Sources (95)	Aircraft

Category (#Processes from 2018)	Stationary Sources
Other Mobile Sources (95)	Ships and Commercial Boats
	Off-Road Equipment