

## Criteria and Air Toxics Reporting: 2021 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 2021 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 consist of on-road vehicles such as passenger cars and trucks, motorcycles, buses, 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: 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 a specific date and time.

### 2021 Data Summary

Most stationary point data come 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 and for criteria pollutants and air toxics reporting.

**Table 1 Number of Facilities Reporting Criteria Pollutants and/or Air Toxics Emissions for 2021 by District**

<b>District</b>	<b>Facilities Reporting Criteria Pollutants</b>	<b>Facilities Reporting Air Toxics</b>	<b>Total Unique Facilities Reported</b>
AMADOR COUNTY APCD	12	0	12
ANTELOPE VALLEY AQMD	438	307	438
BAY AREA AQMD	9,668	8,950	9,672
BUTTE COUNTY AQMD	475	324	533
CALAVERAS COUNTY APCD	1	0	1
COLUSA COUNTY APCD	139	65	139
EASTERN KERN APCD	28	12	29
EL DORADO COUNTY AQMD	503	32	514
FEATHER RIVER AQMD	262	232	263
GLENN COUNTY APCD	161	8	161
GREAT BASIN UNIFIED APCD	24	17	24
IMPERIAL COUNTY APCD	44	14	46
LAKE COUNTY AQMD	20	25	29
LASSEN COUNTY APCD	7	6	7
MARIPOSA COUNTY APCD	32	0	32
MENDOCINO COUNTY AQMD	2	75	77
MODOC COUNTY APCD	1	1	1
MOJAVE DESERT AQMD	998	647	1,002
MONTEREY BAY AIR RESOURCES DISTRICT	26	22	26
NORTH COAST UNIFIED AQMD	278	264	278
NORTHERN SIERRA AQMD	20	6	20
NORTHERN SONOMA COUNTY APCD	20	14	20
PLACER COUNTY APCD	791	210	793
SACRAMENTO METROPOLITAN AQMD	69	36	70
SAN DIEGO COUNTY APCD	387	383	389
SAN JOAQUIN VALLEY APCD	5,981	4,777	6,005
SAN LUIS OBISPO COUNTY APCD	547	537	652
SANTA BARBARA COUNTY APCD	706	688	706
SHASTA COUNTY AQMD	135	26	135
SISKIYOU COUNTY APCD	2	2	2
SOUTH COAST AQMD	1,081	971	1,081

District	Facilities Reporting Criteria Pollutants	Facilities Reporting Air Toxics	Total Unique Facilities Reported
TEHAMA COUNTY APCD	76	51	115
TUOLUMNE COUNTY APCD	8	0	8
VENTURA COUNTY APCD	244	473	594
YOLO-SOLANO AQMD	952	130	952
Total	24,138	19,305	24,826

Table 1 indicates that the larger the population center, generally, the larger number 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. Population data are estimated by the California Department of Finance.

**Table 2 Total Number of Facilities Reported**

Air District	Sac Metro	Yolo-Solano	Placer	Feather River	El Dorado
Total facilities with reported emissions	70	952	793	263	514
2021 population	1,586,031	360,032	409,044	183,569	191,992
Number of facilities reporting emissions per 100,000 residents	4	264	194	143	268

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 2021)	Stationary Sources
Fuel Combustion (17,539)	Electrical Utilities
	Cogeneration

Category (# Processes from 2021)	Stationary Sources
	Oil and Gas Production (Combustion) Petroleum Refining (Combustion) Manufacturing and Industrial Food and Agricultural Processing Service and Commercial Other (Fuel Combustion)
Waste Disposal (1,376)	Sewage Treatment Landfills Incinerators Soil Remediation Other (Waste Disposal)
Cleaning and Surface Coatings (13,262)	Laundering Degreasing Coatings and Related Process Solvents Printing Adhesives and Sealants Other (Cleaning and Surface Coatings)
Petroleum Production and Marketing (17,129)	Oil and Gas Production Petroleum Refining Petroleum Marketing Other (Petroleum Production and Marketing)
Industrial Processes (8,202)	Chemical Food and Agriculture Mineral Processes Metal Processes Wood and Paper Glass and Related Products Electronics Other (Industrial Processes)
Miscellaneous Processes (382)	Farming Operations Unpaved Road Dust Cooking Other Miscellaneous Processes
Other Mobile Sources (62)	Aircraft Ships and Commercial Boats Off-Road Equipment