

Types of Air Pollution Sources and Pollutants They Emit

This table shows general source types and pollutants typically emitted by each. This is not an exhaustive list, as emissions may be highly variable by specific facility. The source types shown in the table represent many of the more common sources found in the Richmond-San Pablo area.

Source Types	Pollutants Typically Emitted
Refinery / Petrochemical	Air toxics BTEX PM (PM _{2.5} and Diesel PM) Metals NO _x , SO ₂ and H ₂ S
Aggregates	PM (PM _{2.5} and Diesel PM) Metals NO _x Respiratory silica
Marine shipping terminals	BTEX PM (PM _{2.5} and Diesel PM) Formaldehyde NO _x and SO _x
Waste management / landfills	Air toxics BTEX H ₂ S PM (PM _{2.5} and Diesel PM, primarily from equipment)
Metal recyclers / scrapyards	Air toxics Metals PM (PM _{2.5} and Diesel PM, primarily from equipment)
Water management	Air toxics BTEX Diesel PM H ₂ S
Gas stations	Air toxics BTEX
Auto body / coating / finishing operations	Air toxics BTEX
Roadways (exhaust, resuspended dust)	PM (PM _{2.5} and Diesel PM) CO and NO _x
Railways and railyards (exhaust, resuspended dust)	PM (PM _{2.5} and Diesel PM) CO and NO _x

Air toxics: A group of pollutants that cause or may cause cancer or other serious health effects. Air toxics may be gases or particles. Common air toxics include (but are not limited to) acetaldehyde, acetone, ammonia, benzene, butadiene, chloroform, ethylbenzene, formaldehyde, hydrogen chloride, methylene chloride, toluene, vinyl chloride, and xylene.

BTEX: benzene, toluene, ethylbenzene, xylene; air toxics typically associated with petroleum operations.

Diesel PM: Particles found in exhaust from trucks, buses, trains, ships, and other equipment with diesel engines. Diesel PM can contain hundreds of different chemicals and is an air toxic.

Metals: Air toxics in particle form, including (but not limited to) arsenic, cadmium, chromium (VI), copper, lead, manganese, mercury, nickel.

Note: This information is provided at request by the steering committee and is meant to facilitate discussion. This document will be updated as needed with new information.