



Emissions Inventory Help Sheet for Vehicle Travel on Unpaved Roads

What do I need to report?

Travel on unpaved roads at a facility must be included in an emission inventory report. Identify which categories of the following types of equipment and speeds apply to your processes. If you do not want to use the default emission factors, please contact us at 602-506-6790 for certain county parameters and be sure to upload your calculation documentation into the AQD Online Portal. Use the emission unit type for open air fugitive source (FUG).

What are my emission factors?

Source Classification Code (SCC) is: **30502504** for sand/gravel and concrete batch facilities
50100401 for landfills

PM₁₀ Emission Factors, lb/VMT at miles per hour (mph) average
 VMT = “vehicle miles traveled”

Vehicle Type	PM ₁₀ Emission Factors								
	10 mph	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50 mph
Heavy-Duty Vehicles (e.g., haul trucks, cranes)	2.13	3.2	4.27	5.33	6.4	7.47	8.53	9.6	10.67
Medium-Duty Vehicles (e.g., front end loaders, forklifts)	0.57	0.86	1.14	1.43	1.71	2.0	2.28	2.57	2.85
Light-Duty Vehicles (e.g., pickup trucks)	0.29	0.44	0.59	0.74	0.88	1.03	1.18	1.33	1.47

How do I calculate my emissions?

Refer to the AQD Online Portal Emissions Inventory Instructions for more information. The emissions factors above are **uncontrolled**. The calculation for travel without dust control is:
 annual miles × emission factor = PM₁₀ emissions

You may account for dust control efforts on haul roads if: (1) you use water or other dust suppressants, and (2) if you are in full compliance with the record keeping requirements in Rule 310, Fugitive Dust and/or Rule 316, Nonmetallic Mineral Mining and Processing. To account for dust control efforts, add control equipment “Fugitive Dust Suppression” to each VMT emission process. Use a control efficiency of 90% for regular watering or use of chemical palliatives (dust suppressants) and include such watering control efficiencies in your calculations as shown below. Water or palliatives are assumed to have a capture efficiency of 100%. The AQD Online Portal will calculate control efficiency and fugitive dust emissions from vehicle travel on unpaved roads.

Reference: U.S. EPA, 1997. *Compilation of Air Pollutant Emission Factors AP-42*, Volume I: Stationary Point and Area Sources, fifth ed. Section 13.2.2.