

**EMISSION FACTORS
ASPHALT AND AGGREGATE INDUSTRIES**

AQ-EF06

Hot Mix Asphalt Plants – Particulate Matter:

Type	Particulate Matter Controls	Pounds of pollutant per ton of product ¹		
		PM	PM ₁₀	PM _{2.5}
Batch Mix	Uncontrolled	32	4.5	0.29
	Venturi or wet scrubber	0.14	0.034	0.018
	Baghouse	0.042	0.027	0.025
Drum Mix	Uncontrolled	28	6.5	1.6
	Venturi or wet scrubber	0.045	0.025	0.021
	Baghouse	0.033	0.023	0.022

Hot Mix Asphalt Plants – Gaseous Pollutants:

Type	Fuel	Pounds of pollutant per ton of product ²			
		SO ₂	NO _x	CO	VOC
Batch Mix	Natural Gas	0.0046	0.025	0.40/0.1 ³	0.0082
	No. 2 fuel oil	0.088	0.12/0.08 ³	0.40/0.1 ³	0.0082
	No. 6 fuel oil	0.088	0.12	0.40	0.036
Drum Mix	Natural Gas	0.0034	0.026	0.13/0.1 ³	0.032
	No. 2 fuel oil	0.011	0.055	0.13/0.1 ³	0.032
	Waste oil	0.058	0.055	0.13/0.1 ³	0.032

Rock crushers

Type of control	Pounds of pollutant per ton of rock crushed ⁴		
	PM	PM ₁₀	PM _{2.5}
Uncontrolled	0.25	0.0125	0.00075
Water Spray	0.04	0.02	0.0012 ⁵

Ready-mix concrete plants

Type of control	Pounds of pollutant per cubic yard of concrete ⁵		
	PM	PM ₁₀	PM _{2.5}
Uncontrolled	0.2	0.102	0.03
Baghouse	0.02	0.02	0.0059 ⁵

¹ These factors are from AP-42 Tables 11.1-1 and 11.1-2. These factors should not be used if there is source specific emissions data available.

² These factors are from AP-42 Tables 11.1-3 through 11.1-4. These factors should not be used if there is source specific emissions data available.

³ The first value represents emissions from sources without routine tuning of the burner. The second value can be used for sources that have a routine burner tuning schedule.

⁴ These are DEQ factors.

⁵ PM_{2.5} emission factors developed using cumulative mass percent of PM₁₀ and PM_{2.5} data from tables provided by EPA to DEQ after the discontinuation of EPA's PM calculator.

⁶ The uncontrolled emission factor is from AP-42 Table 11.12-2. The controlled factors are DEQ factors.