

Particulate Matter (PM_{2.5})

Airborne particulates are tiny pieces of solid or liquid matter suspended in the atmosphere. Respirable particulates are fine particles that have the potential to affect human health. Particles with aerodynamic diameters between 2.5 and 10 micrometers are generally removed from inhaled air in the nose and throat. Particles that are smaller than 2.5 micrometers (PM_{2.5}) can penetrate into the lungs and are generally referred to as respirable or fine particulate matter. Particles that are between 2.5 microns and 10 microns are generally referred to as inhalable or coarse particulate matters. The total mass concentration of the fine and coarse portions is referred to PM₁₀, or particulate matter smaller than 10 microns aerodynamic diameter. These particles may originate from soil, road dust, agricultural dust, smoke, forest fires, traffic emissions, and industrial sources.

Alberta does not have an ambient air quality objective for PM₁₀. The current AAAQO for PM_{2.5} are:

- 1-hour average AAAQO = 80 µg/m³
- 24-hr average AAAQO = 30 µg/m³