



Bay Area Air Quality Management District

Particulate Matter (PM) and PM Planning: Frequently Asked Questions

What is PM?

The term “particulate matter” (PM) describes a wide range of tiny particles (solids or liquid droplets) suspended in the air we breathe. PM_{2.5}, often referred to as “fine PM,” describes particles with a diameter of 2.5 microns or less. PM₁₀ describes larger particles with a diameter of 10 microns or less. By comparison, a human hair has a diameter of approximately 70 microns. PM – and the chemicals that combine to form PM – come from a wide range of sources, including the combustion of fossil fuels, wood-burning, industrial processes and cooking.

Why is PM bad?

Health studies indicate that fine particulate matter is the air pollutant that poses the greatest health risk to Bay Area residents. Exposure to PM_{2.5} may cause or contribute to a variety of adverse health effects, both respiratory and cardiovascular, including aggravated asthma, bronchitis, decreased lung function, heart attacks and premature death. Children, the elderly and people with respiratory illnesses are most vulnerable to health effects from fine PM. PM also reduces visibility and damages natural ecosystems; in addition, some types of PM contribute to climate change.

Who is responsible for protecting air quality in the Bay Area?

The Bay Area Air Quality Management District (Air District) has primary responsibility for protecting air quality. In collaboration with its regional agency partners, the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG), the Air District is responsible for preparing and implementing plans to achieve State and national air quality standards, including PM standards.

Does the Bay Area currently meet air quality standards?

The Bay Area did not meet one of the federal air quality standards for PM_{2.5} during the three-year period from 2006 to 2008. The United State Environmental Protection Agency (EPA) therefore designated the Bay Area as “non-attainment” for the 24-hour PM_{2.5} national ambient air quality standard in December 2009. Since then, Bay Area PM_{2.5} pollution levels have decreased. Air quality monitoring data show that the Bay Area attained the national 24-hour PM_{2.5} standard during the three-year period from 2008 through 2010 and again for the 2009 through 2011 period.

State and national air quality standards and Bay Area attainment status for PM and other pollutants are summarized at: http://hank.baagmd.gov/pln/air_quality/ambient_air_quality.htm



Why does the Air District need to prepare a plan to reduce PM?

Federal law requires areas designated as “non-attainment” for the 24-hour PM_{2.5} standard to prepare a State Implementation Plan (SIP) and submit the SIP to EPA by fall 2012. However, EPA guidelines provide that areas that currently attain the PM_{2.5} standard, such as the Bay Area, can apply for a “clean data finding” by EPA. If the “clean data finding” request is approved by EPA, then the region can fulfill federal PM_{2.5} SIP requirements by submitting an “abbreviated” SIP. The Air District has applied for a clean data finding and plans to submit an abbreviated SIP.

What will the plan consist of?

Normally, SIPs are required to demonstrate how the area will achieve the 24-hour PM_{2.5} standard by December 2014. However, because EPA is expected to suspend most SIP requirements if it issues a clean data finding for the Bay Area, the Air District plans to submit an abbreviated SIP consisting of:

- Amendments to the Air District’s New Source Review (NSR) regulation to address PM_{2.5}
- An emissions inventory for PM_{2.5} that includes both primary (directly-emitted) particulate matter, as well as precursor pollutants that combine to form secondary PM in the atmosphere

Even though the Bay Area has made major progress in reducing PM levels and currently attains the 24-hour PM_{2.5} standard, the Air District is committed to further reducing the impacts of PM on public health. Therefore, Air District staff will supplement the abbreviated PM SIP by preparing a more comprehensive PM Report. The PM Report will guide long-term efforts to analyze and reduce both PM pollution and population exposure to PM in the Bay Area.

What is the timeline for developing the PM_{2.5} SIP?

The Air District expects to issue the draft PM_{2.5} emissions inventory and the draft PM Report in August 2012. A workshop to discuss these documents is scheduled for August 22. After considering public comments received on the draft PM_{2.5} emissions inventory and the draft PM Report, Air District staff will present proposed final versions of these documents to the Air District Board of Directors in the fall of 2012. Air District staff will also present proposed NSR amendments to the Board of Directors in the fall of 2012. Once approved by the Air District Board of Directors, the California Air Resources Board will review the Bay Area PM_{2.5} SIP submittal (consisting of the NSR amendments and the PM_{2.5} emissions inventory) and forward it to EPA by December 2012 for review and approval.

For additional information regarding Bay Area PM planning, please visit:

www.baaqmd.gov/Divisions/Planning-and-Research/Plans/PM-Planning.aspx