



air pollution control district
SANTA BARBARA COUNTY

MEMORANDUM

DATE: July 8, 2020
TO: Community Advisory Council (CAC) Members
FROM: Timothy Mitro, (805) 961-8883
SUBJECT: July 22 CAC Meeting to Discuss Particulate Matter

At the July 22, 2020 CAC meeting, District staff will present information regarding particulate matter (PM) air quality standards, PM monitoring, and federal and state planning requirements to further reduce PM pollution. This information will help prepare the CAC members for upcoming meetings and discussions pertaining to PM and PM reduction measures.

Background: PM pollution is composed of a variety of different substances, such as fine minerals, metals, soot, smoke, organic matter, and other particles that are suspended in the air. PM may be either directly emitted from sources or formed in the atmosphere through chemical reactions of gases such as sulfur dioxide, nitrogen oxides and certain organic compounds. PM emissions are caused by a multitude of naturally occurring and man-made sources, such as the crushing and grinding of aggregates, windblown dust, agricultural operations, and fuel combustion processes.

Particles are defined by their diameter for air quality regulatory purposes. Those with a diameter of 10 microns or less (PM₁₀) are inhalable into the lungs and can induce adverse health effects. Fine particulate matter is defined as particles that are 2.5 microns or less in diameter (PM_{2.5}). Therefore, PM_{2.5} comprises a portion of PM₁₀. Breathing of fine particulate matter can lead to a wide variety of cardiovascular and respiratory health effects such as heart attacks, asthma aggravation, decreased lung function, coughing, or difficulty breathing and may lead to premature death in people with heart or lung disease. For health reasons, the District is most concerned with inhalable PM₁₀ and PM_{2.5}.

Santa Barbara County is designated as attainment for the federal PM₁₀ Ambient Air Quality Standard and for the state and federal PM_{2.5} standards. The County is designated as nonattainment for the state PM₁₀ standard. Some exceedances of the PM standards can be attributed to natural events, such as extreme wildfires or high wind events, while others may be caused or aggravated by man-made pollution or activities. To help both attain and maintain the PM standards, the District has made great strides in reducing direct particulate matter pollution as well as reducing the precursor pollutants to particulate matter (e.g., nitrogen oxides, sulfur oxides, and reactive organic compounds).

As required in the Board-adopted Assembly Bill 617 Best Available Retrofit Control Technology (BARCT) Rule Development Schedule, the District is developing a new Rule 363 to reduce PM at one industrial source. During the CAC meeting, staff will outline the next steps and timeline for developing Rule 363.

If there are questions or concerns that you would like to discuss beforehand, please contact me at (805) 961-8883 / e-mail: MitroT@sbcapcd.org or visit the District's website for additional particulate matter information: www.ourair.org/particle-pollution-and-health.

Aeron Arlin Genet, Air Pollution Control Officer

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