

**SANTA BARBARA COUNTY**  
**AIR POLLUTION CONTROL DISTRICT**  
**POLICIES AND PROCEDURES**

Policy No.	<u>6100.074.2016</u> Div Pol Yr	Draft	_____
Supersedes No.	_____ Div Pol Yr	Final	<u>x</u>
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Topic:	<u>Calculating PM<sub>2.5</sub> Emissions</u>		
Distribution:	<u>Engineering Division Staff</u>		

This policy and procedure provides guidance on calculating emissions of particulate matter less than 2.5 microns in aerodynamic diameter (PM<sub>2.5</sub>) for various equipment categories. With the adoption of the revised New Source Review rules, PM<sub>2.5</sub> was added as a regulated pollutant. Therefore, PM<sub>2.5</sub> emissions must now be calculated and included in all permits issued by the District.

Internal Combustion Equipment

Internal combustion equipment (e.g. spark ignited reciprocating internal combustion engines, compression ignited reciprocating internal combustion engines and stationary turbines) fired on liquid or gaseous fuels should use a default PM<sub>10</sub>/PM<sub>2.5</sub> ratio of 1:1 for calculating PM<sub>2.5</sub> emissions. This is based on the USEPA guidance (ref. AP-42 chapters 3.2 and 3.3) that all particulate from internal combustion sources is assumed to be ≤ 1 micron in diameter.

External Combustion Equipment

External combustion equipment (e.g. boilers, steam generators, process heaters, flares and thermal oxidizers) fired on gaseous fuels should use a default PM<sub>10</sub>/PM<sub>2.5</sub> ratio of 1:1 for calculating PM<sub>2.5</sub> emissions. This is based on the USEPA guidance (ref. AP-42 chapter 1.4) that all particulate from gas-fired external combustion sources is assumed to be ≤ 1 micron in diameter. External combustion equipment fired on liquid or solid fuels should consult the appropriate section of USPEPA AP-42 for equipment and fuel specific PM<sub>2.5</sub> emission factors.

Mineral Processing and Handling Equipment

Mineral processing and handling equipment (e.g. crushers, screens, conveyors, silos, hoppers, storage piles, etc.) should consult the appropriate section of USPEPA AP-42 (or other District approved emission factor reference) for equipment/process specific PM<sub>2.5</sub> emission factors. Baghouses used to control mineral processing and handling equipment should use the manufacturer's guaranteed PM<sub>2.5</sub> emission limit, or use a conservative PM<sub>10</sub>/PM<sub>2.5</sub> ratio of 1:1 if a manufacturer's guarantee is not available.

Other Equipment

All other equipment types should be handled on a case-by-case basis.

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Policies and Procedures Memoranda are intended to provide agency staff, applicants and the public guidance relative to standardized APCD procedures. These policies and procedures shall not be interpreted in conflict with APCD Rules and Regulations or administrative policies, and may be modified or updated periodically without advance notice.