

**MONTEREY BAY UNIFIED AIR POLLUTION CONTROL DISTRICT  
REGULATION IV  
PROHIBITIONS**

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**RULE 440      MINERAL PROCESSING FACILITIES**

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*(Adopted March 19, 2008)*

**CONTENTS**

<b>PART 1</b>	<b>GENERAL</b> .....	<b>2</b>
1.2	Applicability .....	2
1.3	Exemptions .....	2
1.4	Effective Dates .....	2
1.5	References .....	2
<b>PART 2</b>	<b>DEFINITIONS</b> .....	<b>2</b>
2.1	Chemical Stabilizers .....	2
2.2	Excessive Fugitive Dust Emissions .....	3
2.3	Fugitive Emission .....	3
2.4	Mineral Processing Facility .....	3
2.5	Opacity .....	3
2.6	Paved Road .....	4
2.7	Ringelmann Chart .....	4
2.8	Unpaved Road .....	4
<b>PART 3</b>	<b>REQUIREMENTS AND STANDARDS</b> .....	<b>4</b>
3.1	Visible Emissions .....	4
3.2	Work Practice Standards .....	4
<b>PART 4</b>	<b>ADMINISTRATIVE REQUIREMENTS</b> .....	<b>5</b>
4.1	Test Methods .....	5

**MONTEREY BAY UNIFIED AIR POLLUTION CONTROL DISTRICT  
REGULATION IV  
PROHIBITIONS**

**PART 1 GENERAL**

**1.1 Purpose**

The purpose of this Rule is to reduce particulate emissions from Mineral Processing Facilities within the District.

**1.2 Applicability**

The provisions of this Rule shall apply to all Mineral Processing Facilities within the District.

**1.3 Exemptions**

Reserved.

**1.4 Effective Dates**

This Rule, as originally adopted, is effective on March 19, 2008.

**1.5 References**

1.5.1 The provisions of this Rule derive from the District's 2005 Report On Attainment Of The California Particulate Matter Standards In The Monterey Bay Region as required by Senate Bill 656 (2003).

1.5.2 Referenced or related rules include: Rule 400 (Visible Emissions) and Rule 402 (Nuisances).

**PART 2 DEFINITIONS**

**2.1 Chemical Stabilizers**

Any non-toxic chemical dust suppressant which is not prohibited for use by the Regional Water Quality Control Board, the California Air Resources Board, the Environmental Protection Agency, or any applicable law, rule or regulation; and

**MONTEREY BAY UNIFIED AIR POLLUTION CONTROL DISTRICT  
REGULATION IV  
PROHIBITIONS**

should meet any specifications, criteria, or tests required by any federal, State, or local water agency.

2.2 Excessive Fugitive Dust Emissions

Emissions equal to or exceeding Ringelmann 1, or equivalent 20% opacity, for a period or periods aggregating more than three minutes in any one hour, or which cause a public nuisance.

2.3 Fugitive Emission

Any emission that could not reasonably pass through a stack, chimney, vent or other functionally equivalent opening. For the purposes of this rule, this includes but is not limited to airborne dust from paved and unpaved roads, materials hauling and load-out activities, dust from disturbed soil areas, materials stockpiles, transfer of materials into stockpiles, conveyor carry back, dust escaping from process buildings used as containment structures, mining and excavation activities and blasting operations.

2.4 Mineral Processing Facility

2.4.1 Any facility engaged in mining, quarrying, crushing or pulverizing nonmetallic minerals, as defined in the Standard Industrial Classification Manual as Industry Numbers 1411 through 1499.

2.4.2 Any facility engaged in manufacturing cement or lime, as defined in the Standard Industrial Classification Manual as Industry Numbers 3241 or 3274.

2.5 Opacity

The degree to which light is prevented from passing through an emissions plume. Its measure is expressed as one (1.0) minus the optical transmittance of a smoke plume, screen target, etc. as determined by the test method in Section 4.1 below. Dark plumes are expressed as numbers 1 through 5 on the Ringelmann Chart, while light plumes are expressed as equivalent percentages. Thus Ringelmann 1 corresponds to 20% opacity, Ringelmann 2 corresponds to 40% opacity, Ringelmann 3 corresponds to 60% opacity, Ringelmann 4 corresponds to 80% opacity, and Ringelmann 5 corresponds to 100% opacity.

**MONTEREY BAY UNIFIED AIR POLLUTION CONTROL DISTRICT  
REGULATION IV  
PROHIBITIONS**

2.6 Paved Road

An improved street, highway, alley, public way, or easement that is covered by one of the following: concrete, asphaltic concrete, recycled asphalt, or asphalt.

2.7 Ringelmann Chart

The chart used to designate shades of darkness of emissions as published by the United States Bureau of Mines.

2.8 Unpaved Road

Any vehicle travel way that is not covered by one of the following: concrete, asphaltic concrete, recycled asphalt, or asphalt.

**PART 3 REQUIREMENTS AND STANDARDS**

3.1 Visible Emissions

Visible emissions shall not exceed 5% opacity, or equivalent Ringelmann 1/4 for a period or periods aggregating more than three minutes in any given hour beyond the property line of the facility.

3.2 Work Practice Standards

The following work practice standards shall be followed:

3.2.1 For all plant operations, including stockpiles, sufficient natural or added moisture shall be contained in process materials to prevent excessive fugitive dust emissions.

3.2.2 Haul roads, access roads, and general plant areas shall be paved, sprayed with chemical stabilizers, kept sufficiently moist, or otherwise maintained to prevent excessive fugitive dust emissions from on and off road equipment.

3.2.3 Limit vehicular speed on unpaved roads to prevent excessive fugitive dust emissions.

**MONTEREY BAY UNIFIED AIR POLLUTION CONTROL DISTRICT  
REGULATION IV  
PROHIBITIONS**

- 3.2.4 Sweep or wash down paved areas, or install wheel washers to reduce track out to prevent excessive fugitive dust emissions.
- 3.2.5 Control spills in bulk loading areas to prevent excessive fugitive dust emissions.

**PART 4 ADMINISTRATIVE REQUIREMENTS**

**4.1 Test Methods**

- 4.1.1 Visible emissions determinations for fugitive emissions shall be in accordance with EPA Method 9 (Visual Determination of the Opacity of Emissions from Stationary Sources) except for the following modified procedures:
  - 4.1.1.1 Data Reduction. Shall consist of counting the number of observations above the applicable standard and multiplying that number by 0.25 to determine the minutes of emissions above the applicable standard.
  - 4.1.1.2 Position. Stand at a position at least 5 meters from the fugitive source in order to provide a clear view of the emissions with the sun oriented in the 140-degree sector to the back. Consistent as much as possible with maintaining the above requirements, make opacity observations from a position such that the line of vision is approximately perpendicular to the plume and wind direction. As much as possible, if multiple plumes are involved, do not include more than one plume in the line of sight at one time.
  - 4.1.1.3 Observations. Make opacity observations, to the extent possible, using a contrasting background that is perpendicular to the line of vision. For roads, storage piles, and parking lots, make opacity observations approximately 1 meter above the surface from which the plume is generated. For other fugitive sources, make opacity observations at the point of greatest opacity in that portion of the plume where condensed water vapor is not present. For intermittent sources, the initial observation should begin immediately after a plume has been created above the surface involved.

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