

## Rule 205, Fugitive Dust Emissions

(Adopted July 7, 1992; Recodified August 22, 2002; Proposed 03/05/10)

(Proposed for Amendment: May 27, 2010)

Date of Release: ~~March 5, 2010~~ May 20, 2010

- 1 **PURPOSE:** The purpose of this rule is to reduce ambient concentrations and limit fugitive emissions of fine particulate matter (PM<sub>10</sub>) from construction activities, bulk material handling and storage, carryout and trackout, and similar activities, weed abatement activities, unpaved parking lots, unpaved staging areas, unpaved roads, inactive disturbed land, disturbed open areas, and windblown dust.
- 2 **APPLICABILITY:** This rule applies to outdoor fugitive dust sources including construction activities, carryout and trackout, inactive disturbed land or open areas, unpaved parking lots/staging areas and private unpaved roads, weed abatement, and windblown dust as set forth in the following definitions, requirements, and exemptions.
- 3 **EXEMPTIONS:** The following sources are not subject to the requirements of this Rule:
  - 3.1 Agricultural sources operations.
  - 3.2 Emergency activities performed to ensure public health and safety.
  - 3.3 Active operations conducted by essential service utilities to provide electricity, natural gas, telephone, water and sewer during periods of service outages and emergency disruptions until one hour after the completion of the active operations.
  - 3.4 Abrasive blasting operations (subject to Rule 200 – *Nuisance*).
  - 3.5 Sources implementing the applicable best available control measure for each fugitive dust source as shown in Table 1 of this Rule when wind gusts exceed 25 miles per hour.
  - 3.6 Any active operation, open storage pile, or disturbed surface area for which the necessary fugitive dust preventive or mitigative actions are in conflict with the federal Endangered Species Act, as determined in writing by the State or federal agency responsible for making such determinations.
  - 3.7 Public areas including public unpaved roadways.
  - 3.8 Blasting activities that have been permitted by the California Division of Industrial Safety. Other activities performed in conjunction with blasting are not exempt from complying with the requirements of this Rule.

**4 DEFINITIONS:**

- 4.1 Active Operations:** Any operation capable of generating fugitive dust, including, but not limited to, earth-moving activities, construction/demolition activities, disturbed surface area, or heavy- and light-duty vehicular movement.
- 4.2 Anemometer:** A device used to measure wind speed and direction.
- 4.3 Best Available Control Measures:** Fugitive dust control actions that are set forth in Table 1 of this Rule.
- 4.4 Blasting Activity:** The use of explosives in quarries, open pit mines, demolition, geophysical exploration, oil/water well services, law enforcement and ordnance disposal, logging, and above ground construction.
- 4.5 Bulk Material:** Sand, gravel, soil, aggregate material less than two inches in length or diameter, and other organic or inorganic particulate matter.
- 4.6 Chemical Stabilizer:** Any non-toxic chemical dust suppressant which is not prohibited for use by the Regional Water Quality Control Boards, the California Air Resources Board (CARB), the U.S. Environmental Protection Agency (U.S. EPA), or any applicable law, rule or regulation. Approved chemical stabilizers shall meet any specifications, criteria, or tests required by any federal, state, or local water agency.
- 4.7 Construction/Demolition Activities:** Any on-site mechanical activities conducted in preparation of, or related to, the building, alteration, rehabilitation, demolition or improvement of property, including, but not limited to the following activities: grading, excavation, loading, crushing, cutting, planing, shaping or ground breaking.
- 4.8 Contractor:** Any person who has a contractual arrangement to conduct an active operation for another person.
- 4.9 Disturbed Surface Area:** A portion of the earth's surface which has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed natural soil condition, thereby increasing the potential for emission of fugitive dust. This definition excludes those areas which have:
- 4.9.1** been restored to a natural state, such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby natural conditions;
  - 4.9.2** been paved or otherwise covered by a permanent structure; or
  - 4.9.3** sustained a vegetative ground cover of at least 70 percent of the native cover for a particular area for at least 30 days.

- 4.10 Dust Suppressant:** Water, hygroscopic materials, or non-toxic chemical stabilizer used as a treatment material to reduce fugitive dust emissions.
- 4.11 Earth-Moving Activities:** The use of any equipment for any activity where soil is being moved or uncovered, and shall include, but not be limited to the following: grading, earth cutting and filling operations, loading or unloading of dirt or bulk materials, adding to or removing from open storage piles of bulk materials, landfill operations, weed abatement through disking, and soil mulching.
- 4.12 Fugitive Dust:** Any solid particulate matter that becomes airborne, other than that emitted from an exhaust stack, directly or indirectly as a result of the activities of any person.
- 4.13 High Wind Condition:** Instantaneous wind speeds exceeding 25 miles per hour.
- 4.14 Inactive Disturbed Surface Area:** Any disturbed surface area upon which active operations have not occurred or are not expected to occur for a period of 20 consecutive days.
- 4.15 Open Storage Pile:** Any accumulation of bulk material, which is not fully enclosed, covered or chemically stabilized, measuring three feet or more in height and a total footprint area of 500 or more square feet.
- 4.16 Particulate Matter:** Any material, except uncombined water, which exists in a finely divided form as a liquid or solid at standard conditions.
- 4.17 Paved Road:** A public or private improved street, highway, alley, public way, or easement that is covered by roadway paving materials, but excluding facility entrances or driveways. Public paved roads are those open to public access and that are owned by any federal, state, county, municipal or any other governmental or quasi-governmental agencies. Private paved roads are any paved roads not defined as public.
- 4.18 PM10:** Particulate matter with an aerodynamic diameter smaller than or equal to 10 microns as measured by the applicable State and Federal reference test methods.
- 4.19 Property Line:** The boundaries of an area in which either a person causing the emission or a person allowing the emission has the legal use or possession of the property. Where such property is divided into one or more sub-tenancies, the property line(s) shall refer to the boundaries dividing the areas of all sub-tenancies.

- 4.20 Service Road:** A paved or unpaved road that is used by one or more public agencies for inspection or maintenance of infrastructure and which is not typically used for construction-related activity.
- 4.21 Simultaneous Sampling:** The operation of two PM10 samplers in such a manner that one sampler is started within five minutes of the other, and each sampler is operated for a consecutive period which must be not less than 290 minutes and not more than 310 minutes.
- 4.22 Stabilized Surface:** Any previously disturbed surface area or open storage pile which, through the application of dust suppressants, shows visual or other evidence of surface crusting and is resistant to wind driven fugitive dust and is demonstrated to be stabilized.
- 4.23 Track-Out/Carry-Out:** Any bulk material that adheres to and agglomerates on the exterior surface of motor vehicles, haul trucks, and equipment (including tires) that have been released onto a paved road and can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions.
- 4.24 Paving Materials:** Concrete, asphaltic concrete, recycled asphalt, asphalt, or any other material of equivalent performance as determined by the CARB and the U.S. EPA.
- 4.25 Unpaved Road:** Any road, equipment path, or travel way that is not covered, sealed, or paved by paving materials. Public unpaved roads are any unpaved roadway owned by federal, state, county, municipal or other governmental or quasi-governmental agencies. Private unpaved roads are all other unpaved roadways not defined as public.
- 4.26 Visible Roadway Dust:** Any sand, soil, dirt, or other solid particulate matter which is visible upon paved road surfaces and which can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions.
- 4.27 Wind-Driven Fugitive Dust:** Visible emissions from any disturbed surface area which is generated by wind action alone.
- 4.28 Wind Gust:** The maximum instantaneous wind speed as measured by an anemometer.

## 5 GENERAL REQUIREMENTS:

- 5.1** No person shall cause or allow the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area such that:



TABLE 1  
 BEST AVAILABLE CONTROL MEASURES  
 (Applicable to All Active Operations)

Source Category	Control Measure	Guidance
Backfilling	01-1 Stabilize backfill material when not actively handling; and 01-2 Stabilize backfill material during handling; and 01-3 Stabilize soil at completion of activity.	<input type="checkbox"/> Mix backfill soil with water prior to moving <input type="checkbox"/> Dedicate water truck or high capacity hose to backfilling equipment <input type="checkbox"/> Empty loader bucket slowly so that no dust plumes are generated <input type="checkbox"/> Minimize drop height from loader bucket
Clearing and grubbing	02-1 Maintain stability of soil through pre-watering of site prior to clearing and grubbing; and 02-2 Stabilize soil during clearing and grubbing activities; and 02-3 Stabilize soil immediately after clearing and grubbing activities.	<input type="checkbox"/> Maintain live perennial vegetation where possible <input type="checkbox"/> Apply water in sufficient quantity to prevent generation of dust plumes
Clearing forms	03-1 Use water spray to clear forms; or 03-2 Use sweeping and water spray to clear forms; or 03-3 Use vacuum system to clear forms.	<input type="checkbox"/> Use of high pressure air to clear forms may cause exceedance of Rule requirements
Crushing	04-1 Stabilize surface soils prior to operation of support equipment; and 04-2 Stabilize material after crushing.	<input type="checkbox"/> Follow permit conditions for crushing equipment <input type="checkbox"/> Pre-water material prior to loading into crusher <input type="checkbox"/> Monitor crusher emissions opacity <input type="checkbox"/> Apply water to crushed material to prevent dust plumes

TABLE 1  
 BEST AVAILABLE CONTROL MEASURES  
 (Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Cut and fill	05-1 Pre-water soils prior to cut and fill activities; and	<input type="checkbox"/> For large sites, pre-water with sprinklers or water trucks and allow time for penetration <input type="checkbox"/> Use water trucks/pulls to water soils to depth of cut prior to subsequent cuts
	05-2 Stabilize soil during and after cut and fill activities,	
Demolition - mechanical/manual	06-1 Stabilize wind erodible surfaces to reduce dust; and	<input type="checkbox"/> Apply water in sufficient quantities to prevent the generation of visible dust plumes
	06-2 Stabilize surface soil where support equipment and vehicles will operate; and	
	06-3 Stabilize loose soil and demolition debris.	
Disturbed soil	07-1 Stabilize disturbed soil throughout the construction site; and	<input type="checkbox"/> Limit vehicular traffic and disturbances on soils where possible <input type="checkbox"/> If interior block walls are planned, install as early as possible <input type="checkbox"/> Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes
	07-2 Stabilize disturbed soil between structures.	
Earth-moving activities	08-1 Pre-apply water to depth of proposed cuts; and	<input type="checkbox"/> Grade each project phase separately, timed to coincide with construction phase <input type="checkbox"/> Upwind fencing can prevent material movement on site <input type="checkbox"/> Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes
	08-2 Re-apply water as necessary to maintain soils in a damp condition and to ensure that visible emissions do not exceed 100 feet in any direction; and	
	08-3 Stabilize soils once earth-moving activities are complete.	

TABLE 1  
 BEST AVAILABLE CONTROL MEASURES  
 (Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Importing/exporting of bulk materials	09-1 Stabilize material while loading to reduce fugitive dust emissions; and 09-2 Maintain at least six inches of freeboard on haul vehicles; and 09-3 Stabilize material while transporting to reduce fugitive dust emissions; and 09-4 Stabilize material while unloading to reduce fugitive dust emissions; and 09-5 Comply with Vehicle Code Section (cvc) 23114.	<ul style="list-style-type: none"> <li><input type="checkbox"/> Use tarps or other suitable enclosures on haul trucks</li> <li><input type="checkbox"/> Check belly-dump truck seals regularly and remove any trapped rocks to prevent spillage</li> <li><input type="checkbox"/> Comply with track-out prevention/mitigation requirements</li> <li><input type="checkbox"/> Provide water while loading and unloading to reduce visible dust plumes</li> </ul>
Landscaping	10-1 Stabilize soils, materials, slopes.	<ul style="list-style-type: none"> <li><input type="checkbox"/> Apply water to materials to stabilize</li> <li><input type="checkbox"/> Maintain materials in a crusted condition</li> <li><input type="checkbox"/> Maintain effective cover over materials</li> <li><input type="checkbox"/> Stabilize sloping surfaces using soil binders until vegetation or ground cover can effectively stabilize the slopes</li> <li><input type="checkbox"/> Hydroseed prior to rain season</li> </ul>
Road-shoulder maintenance	<del>11-1 Apply water to unpaved shoulders prior to clearing; and</del> <del>11-2 Apply chemical dust suppressants and/or washed gravel to maintain a stabilized surface after completing road shoulder maintenance.</del>	<del>⇒ Installation of curbing and/or paving of road shoulders can reduce recurring maintenance costs</del> <del>⇒ Use of chemical dust suppressants can inhibit vegetation growth and reduce future road-shoulder maintenance costs</del>

TABLE 1  
 BEST AVAILABLE CONTROL MEASURES  
 (Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Screening	12-1 Pre-water material prior to screening; and 12-2 Limit fugitive dust emissions to opacity and plume length standards; and 12-3 Stabilize material immediately after screening.	<input type="checkbox"/> Dedicate water truck or high capacity hose to screening operation <input type="checkbox"/> Drop material through the screen slowly and minimize drop height
Staging areas	13-1 Stabilize staging areas during use; and 13-2 Stabilize staging area soils at project completion.	<input type="checkbox"/> Limit size of staging area <input type="checkbox"/> Limit vehicle speeds to 15 miles per hour <input type="checkbox"/> Limit number and size of staging area entrances/exits
Stockpiles/ Bulk Material Handling	14-1 Stabilize stockpiled materials. 14-2 Stockpiles within 100 yards of off-site occupied buildings must not be greater than eight feet in height; or must have a road bladed to the top to allow water truck access or must have an operational watering <del>irrigation system</del> <u>apparatus</u> that is capable of complete <u>pile coverage</u> .	<input type="checkbox"/> Add or remove material from the downwind portion of the storage pile <input type="checkbox"/> Maintain storage piles to avoid steep sides or faces

TABLE 1  
 BEST AVAILABLE CONTROL MEASURES  
 (Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Traffic areas for construction activities	15-1 Stabilize all off-road traffic and parking areas; and 15-2 Stabilize all haul routes; and 15-3 Direct construction traffic over established haul routes.	<input type="checkbox"/> Apply gravel/paving to all haul routes as soon as possible to all future roadway areas <input type="checkbox"/> Barriers can be used to ensure vehicles are only used on established parking areas/haul routes
Trenching	16-1 Stabilize surface soils where trencher or excavator and support equipment will operate; and 16-2 Stabilize soils at the completion of trenching activities.	<input type="checkbox"/> Pre-watering of soils prior to trenching is an effective preventive measure. For deep trenching activities, pre-trench to 18 inches soak soils via the pre-trench and resuming trenching <input type="checkbox"/> Washing mud and soils from equipment at the conclusion of trenching activities can prevent crusting and drying of soil on equipment
Truck loading	17-1 Pre-water material prior to loading; and 17-2 Ensure that freeboard exceeds six inches (CVC 23114)	<input type="checkbox"/> Empty loader bucket such that no visible dust plumes are created <input type="checkbox"/> Ensure that the loader bucket is close to the truck to minimize drop height while loading
Turf Overseeding	18-1 Apply sufficient water immediately prior to conducting turf vacuuming activities; and 18-2 Cover haul vehicles prior to exiting the site.	<input type="checkbox"/> Haul waste material immediately off-site

**TABLE 1  
BEST AVAILABLE CONTROL MEASURES  
(Applicable to All Construction Activity Sources)**

Source Category	Control Measure	Guidance
Unpaved roads/parking lots	19-1 Stabilize soils to meet the applicable <del>performance general standards</del> <u>requirements</u> ; and 19-2 Limit vehicular travel to established unpaved roads (haul routes) and unpaved parking lots.	<input type="checkbox"/> Restricting vehicular access to established unpaved travel paths and parking lots can reduce stabilization requirements
Vacant land	20-1 <del>In instances where vacant lots are 0.10 acre or larger and have a cumulative area of 500 square feet or more that are driven over and/or used by motor vehicles and/or off-road vehicles, prevent motor vehicle and/or off-road vehicle trespassing, parking and/or access by installing barriers, curbs, fences, gates, posts, signs, shrubs, trees or other effective control measures.</del>	