

EL DORADO COUNTY AIR QUALITY MANAGEMENT DISTRICT

RULE 223-1 FUGITIVE DUST - CONSTRUCTION, BULK MATERIAL HANDLING, BLASTING, OTHER EARTHMOVING ACTIVITIES AND CARRYOUT AND TRACKOUT PREVENTION

(Adopted 7/19/2005, Amended 10/18/2005)

INDEX	PAGE
223-1.1 GENERAL	3
A. PURPOSE	3
B. APPLICABILITY	3
C. DISCOVERY OF NATURALLY OCCURRING ASBESTOS	3
223-1.2 EXEMPTIONS	3
A. GENERAL.....	3
B. BULK MATERIAL HANDLING	3
223-1.3 DEFINITIONS	3
223-1.4 GENERAL REQUIREMENTS	4
A. VISIBLE EMISSIONS LIMITATIONS.....	4
B. VEHICLE SPEED LIMITATIONS.....	4
C. SUSPENDING OPERATIONS DUE TO HIGH WIND	4
223-1.5 ADMINISTRATIVE REQUIREMENTS	4
A. FUGITIVE DUST CONTROL PLAN.....	4
B. REQUIRED CONTENTS FOR FUGITIVE DUST CONTROL PLAN.....	5
223-1.6 REQUIREMENTS FOR TRACKOUT MANAGEMENT	5
A. VISIBLE TRACKOUT REMOVAL REQUIREMENTS	5
B. CARRYOUT AND TRACKOUT PREVENTION	6
C. CONTROL FOR INACTIVE AREAS AND STORAGE PILES	6
223-1.7 ADDITIONAL REQUIREMENTS FOR LARGE OPERATIONS	6
223-1.8 AIR MONITORING	7
223-1.9 RECORDKEEPING	7
A. RECORDKEEPING	7
223-1.10 TEST METHODS	7
A. SURFACE CRUSTING.....	7
B. ADEQUATELY WET.....	8

LIST OF TABLES

TABLE 1 BEST MANAGEMENT PRACTICE CONSTRUCTION AND OTHER EARTHMOVING ACTIVITIES	9
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TABLE 2 BEST MANAGEMENT PRACTICE BULK MATERIAL HANDLING	13
TABLE 3 BEST MANAGEMENT PRACTICE REMOVAL AND PREVENTION OF TRACKOUT	14
TABLE 4 BEST MANAGEMENT PRACTICE BLASTING ACTIVITIES	15
TABLE 5 DUST CONTROL MEASURES FOR LARGE OPERATIONS	16
TABLE 6 CONTINGENCY DUST CONTROL MEASURES FOR LARGE OPERATIONS.....	18

223-1.1 GENERAL

- A. **PURPOSE:** The purpose of this rule is to limit fugitive dust emissions from construction, and construction related activities.
- B. **APPLICABILITY:** This rule applies to any construction or construction related activities, including, but not limited to, land clearing, grubbing, scraping, travel on site, and travel on access roads. This rule also applies to all sites that are subject to this rule where carryout or trackout has occurred or may occur on paved public roads or the paved shoulders of a paved public road. This rule also applies to the construction of new landfill disposal sites or modification to existing landfill disposal sites prior to commencement of landfilling activities.
- C. **DISCOVERY OF NATURALLY OCCURRING ASBESTOS:** If owner/operator discovers any naturally occurring asbestos, serpentine, or ultramafic rock after the project has commenced, then:
 - 1. If naturally-occurring asbestos, serpentine, or ultramafic rock is discovered by the owner/operator, a Professional Geologist, or the Air Pollution Control Officer in the area to be disturbed after the start of any construction or construction related activity, the owner/operator must report the discovery to the EDCAQMD no later than the next business day; and
 - 2. The project must comply with applicable provisions of Rule 223-2 and the State of California Asbestos Airborne Toxic Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations (CCR Title 17, Section 93105).

223-1.2 EXEMPTIONS

- A. **GENERAL:** Exemptions as defined in EDCAQMD Rule 223.2.A through F shall apply to this rule.
- B. **BULK MATERIAL HANDLING:** Activities listed in Rule 223-1.2.B are exempt from Rule 223-1.
 - 1. Any outdoor storage, handling or transport of bulk materials which would be damaged by wetting with water or by the application of chemical/organic dust suppressants, provided owners/operators demonstrate to the satisfaction of the Air Pollution Control Officer that none of the control measures specified in Table 2 of this Rule can be implemented.
 - 2. Transport of a bulk material in an outdoor area for a distance of twelve feet or less with the use of chute or conveyor device.
 - 3. Outdoor storage of any bulk material at a single site where no material is actively being added or removed at the end of the workday or overnight and where the total material stored is less than 100 cubic yards.

223-1.3 DEFINITIONS

The definitions of terms in EDCAQMD Rule 223 (General Requirements) shall apply to this rule.

223-1.4 GENERAL REQUIREMENTS

- A. Visible emissions shall not exceed the shade designated as No. 0 on the Ringelmann Chart, or 0% opacity as determined in accordance with US EPA Method 9, at 50 feet from the point-of-origin and at the property line. Visible emissions shall not exceed the shade designated as No. 1 on the Ringelmann Chart, or 20% opacity as determined in accordance with US EPA Method 9 at the point-of-origin. Applicable Best Management Practices included in Table 1 through 4 of this Rule or similar effective measures shall be utilized to comply with fugitive dust standards of this rule from each fugitive dust source type within the active operation.
- B. Vehicle Speed Limitations and Posting of Speed Limit Signs
 - 1. An owner/operator shall limit the speed of vehicles traveling within construction sites if necessary to prevent visible dust emissions in excess of the standards in Section 223-1.4 A.
- C. When sustained wind speeds result in visible dust emissions in excess of the standards in Section 223-1.4 A, despite the application of dust mitigation measures, grading and earthmoving operations except water trucks shall be suspended.

223-1.5 ADMINISTRATIVE REQUIREMENTS

A. Fugitive Dust Control Plan

- 1. An owner/operator shall submit a Fugitive Dust Control Plan to the Air Pollution Control Officer prior to the start of any construction activity for which a grading permit was issued by El Dorado County or an incorporated city within El Dorado County. An updated Fugitive Dust Control Plan must be submitted if the project is significantly modified, a new grading permit is issued, the owner/operator changes, or at the request of the Air Pollution Control Officer.

Construction activities shall not commence until the Air Pollution Control Officer has approved or conditionally approved the Fugitive Dust Control Plan. An owner/operator shall provide written notification to the Air Pollution Control Officer at least 10 days prior to the initial commencement of earthmoving activities via fax or mail. The requirement to submit a Fugitive Dust Control Plan shall apply to all such activities conducted for residential and non-residential (e.g., commercial, industrial, or institutional) purposes or conducted by any governmental entity.

- 2. An owner/operator may submit one Fugitive Dust Plan covering multiple construction stages within same project, provided the plan includes description of activities and control measures for all stages of the project. The Fugitive Dust Control Plan shall specify the expected start and final completion date of each project.
- 3. The Fugitive Dust Control Plan shall describe all fugitive dust control measures to be implemented before, during and after any dust generating activity.
- 4. A Fugitive Dust Control Plan shall contain all the information described in Section 223-1.5.B. The Air Pollution Control Officer shall approve, disapprove or conditionally approve the Fugitive Dust Control Plan within 30 days of plan submittal.
- 5. An owner/operator shall retain a copy of an approved Fugitive Dust Control Plan at the project site. The approved Fugitive Dust Control Plan shall remain valid until the termination of all dust

generating activities. Failure to comply with the provisions of an approved Fugitive Dust Control Plan is deemed to be a violation of this rule. Regardless of whether an approved Fugitive Dust Control Plan is in place or not, or even when the owner/operator responsible for the plan is complying with an approved Fugitive Dust Control Plan, the owner/operator shall comply with all requirements of Rules 223 and 223-1 at all times.

B. A Fugitive Dust Control Plan shall contain all of the following information:

1. Name(s), address(es), and phone number(s) of person(s) and owner(s)/operator(s) responsible for the preparation, submittal, and implementation of the Fugitive Dust Control Plan and responsible for the dust generating operation and the application of dust control measures.
2. A plot plan which shows the type and location of each project.
3. The total area of land surface to be disturbed, and total area in acres of the entire project site.:
4. The expected start and completion dates of dust generating and soil disturbance activities to be performed on the site.
5. The actual and potential sources of fugitive dust emissions on the site and the location of bulk material handling and storage areas, paved and unpaved roads; entrances and exits where carryout/trackout may occur; and traffic areas.
6. Best Management Practice (Rule 223-1, Table 1 through 4) or other effective measures for:
 - a. Construction
 - b. Bulk Material Handling
 - c. Carryout and Trackout Management
 - d. Blasting Activities
7. Large Operations must include Dust Control Measures (Rule 223-1, Table 5 and 6).
8. If chemical dust suppressants are to be applied, the following information must be included: product specifications; manufacturer's usage instructions (method, frequency, and intensity of application); type, number, and capacity of application equipment; and information on environmental impacts and approvals or certifications related to appropriate and safe use for ground application.
9. Specific surface treatment(s) and/or control measures utilized to control material carryout, trackout, and sedimentation where unpaved and/or access points join paved roads.

223-1.6 REQUIREMENTS FOR TRACKOUT MANAGEMENT

- A. An owner/operator shall prevent or cleanup carryout and trackout as specified in Section 223-1.6.A. The use of blower devices, or dry rotary brushes or brooms, for removal of carryout and trackout on public roads is expressly prohibited. The removal of carryout and trackout from paved public roads does not exempt an owner/operator from obtaining state or local agency permits which may be required for the cleanup of mud and dirt on paved public roads.

1. Owners/operators shall prevent carryout and trackout, or immediately remove carryout and trackout when it extends 50 feet or more from the nearest unpaved surface exit point of a site and at the minimum remove all other visible carryout and trackout at the end of each workday.
 2. Cleanup of carryout and trackout shall be accomplished by:
 - a. Manually sweeping and picking-up; or
 - b. Operating a rotary brush or broom accompanied or preceded by sufficient wetting; or
 - c. Operating a PM10-efficient street sweeper.
 - d. Flushing with water, if curbs or gutters are not present, and where the use of water will not result in a source of trackout material or result in adverse impacts on storm water drainage systems or violate any National Pollutant Discharge Elimination System permit program.
- B. An owner/operator of any site with 150 or more vehicle trips per day, or 20 or more vehicle trips per day by vehicles with three or more axles shall in addition to the requirements in Section 223-1.6.A, take the following preventative actions for carryout and trackout:
1. Installing and maintaining a trackout control device (grizzlies, gravel pads or paved surfaces) designed and maintained to control trackout at all access points to paved public roads; or
 2. Utilizing a carryout and trackout prevention procedure which has been demonstrated to the satisfaction of the Air Pollution Control Officer as achieving an equivalent or greater level of control.
- C. Control for disturbed surface area and storage piles shall comply with all applicable requirements of this Rule.

223-1.7. ADDITIONAL REQUIREMENTS FOR LARGE OPERATIONS

- A. Any person who conducts or authorizes the conducting of a large operation subject to this Rule shall implement the applicable actions specified in Table 5 of this Rule at all times and shall implement the applicable actions specified in Table 6 of this Rule when the applicable performance standards can not be met through use of Table 5 actions; and shall:
1. Submit a Large Operation Notification to the Air Pollution Control Officer within 7 days of qualifying as a large operation;
 2. Maintain daily records to document the specific dust control actions taken, retain such records for a period of not less than two years; and make such records available to the Air Pollution Control Officer upon request;
 3. Identify a dust control supervisor that:
 - a. is employed by or contracted with the property owner or developer;
 - b. is on the site or available on-site within 30 minutes during working hours;
 - c. has the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with all Rule requirements;

223-1.8 AIR MONITORING

Ambient air monitoring shall be conducted at the request of the Air Pollution Control Officer.

223-1.9 RECORDKEEPING

A. Recordkeeping

1. A person or owner/operator shall maintain records and any other supporting documents to demonstrate compliance with the requirements of EDCAQMD Rules 223-1 only for those days that a control measure was implemented.
2. Such records shall include the type of control measure(s) used, the location and extent of coverage, and the date, amount, and frequency of application of dust suppressant, manufacturer's dust suppressant product information sheet that identifies the name of the dust suppressant and application instructions.
3. Except where noted otherwise in this rule, records shall be retained for two years following project completion that results in the termination of all dust generating activities. Records shall be made available to the Air Pollution Control Officer upon request.

223-1.10 TEST METHODS

A. Surface Crusting: "Measurement of the stability of surface crusting on horizontal surfaces" shall be as follows:

1. Where a visible crust exists, drop a steel ball with a diameter of 15.9 millimeters (0.625 inches) and a mass ranging from 16 to 17 grams from a distance of 30 centimeters (one foot) directly above at a 90 degree angle (perpendicular) to the ground surface. If blowsand (thin deposits of loose grains covering less than 50 percent of the surface that have not originated from the surface being tested) is present, clear the blowsand from the surfaces to be tested before dropping the steel ball.
2. A sufficient crust is determined to exist if, when the ball is dropped according to Section 223-1.10.A.1, the ball does not sink into the surface so that it is partially or fully surrounded by loose grains and, upon removing the ball, the surface on which it was dropped has not been pulverized so that loose grains are visible.
3. Drop the ball three times each in three representative test areas within a survey area measuring 1 foot by 1 foot that represents a random portion of the surface being evaluated. The test area shall be deemed to have passed if at least two of the three times the ball was dropped, the results met the criteria in Section 223-1.10.A.1. If all three test areas pass, the area shall be deemed to be "sufficiently crusted".

B. Adequately Wetted: Field determination of “adequately wetted” shall be as follows:

1. If the district-approved asbestos dust mitigation plan has specified a percent moisture content for specific materials the determination shall be as specified in the district-approved asbestos dust mitigation plan; or
2. If no moisture threshold is specified in a district-approved asbestos dust mitigation plan, a sample of at least one (1) quart in volume shall be taken from the top three (3) inches of a road, or bare area or from the surface of a stockpile. The sample shall be poured out from a height of four (4) feet onto a clean hard surface. The material shall be considered to be adequately wetted if there is no observable dust emitted when the material is dropped.

RULE 223-1 TABLE 1
BEST MANAGEMENT PRACTICE
(Construction and Other Earthmoving Activities)

Source Category	Control Measure	Guidance
Backfilling	A1 Stabilize backfill material when not actively handling; <u>and</u> A2 Stabilize backfill material during handling; <u>and</u> A3 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	B1 Maintain stability of soil through pre-watering of site prior to clearing and grubbing; <u>and</u> B2 Stabilize soil during clearing and grubbing activities; <u>and</u> B3 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	C1 Use water spray to clear forms; or C2 Use sweeping and water spray to clear forms; <u>or</u> C3 Use vacuum system to clear forms.	<input type="checkbox"/> Use of high pressure air to clear forms may cause exceedance of Rule requirements.
Crushing	D1 Stabilize surface soils prior to operation of support equipment; <u>and</u> D2 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.
Cut and fill	E1 Pre-water soils prior to cut and fill activities; <u>and</u> E2 Stabilize soil during and after cut and fill activities	<input type="checkbox"/> For large sites, pre-water with sprinklers or water trucks and allow time for penetration. <input type="checkbox"/> Use water as necessary to keep dust down.
Demolition – mechanical/manual	F1 Stabilize wind erodible surfaces to reduce dust; <u>and</u> F2 Stabilize surface soil where support equipment and vehicles will operate; <u>and</u> F3 Stabilize loose soil and demolition debris.	<input type="checkbox"/> Apply water in sufficient quantities to prevent the generation of visible dust plumes.

RULE 223-1 TABLE 1
BEST MANAGEMENT PRACTICE
(Construction and Other Earthmoving Activities)

Source Category	Control Measure	Guidance
Disturbed soil	G1 Stabilize disturbed soil throughout the construction site; <u>and</u> G2 Stabilize disturbed soil between structures	<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.
Earth-moving activities	H1 Pre-apply water; <u>and</u> H2 Re-apply water as necessary to maintain soils in a damp condition and to ensure that visible emissions do not exceed 50 feet or beyond property line in any direction; <u>and</u> H3 Stabilize soils once earth-moving activities are complete.	<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.
Importing/exporting of bulk materials	I1 Stabilize or adequately wet material while loading to reduce fugitive dust emissions; <u>and</u> I2 Maintain at least six inches of freeboard on haul vehicles traveling offsite; <u>and</u> I3 Stabilize or adequately wet material while transporting to reduce fugitive dust emissions; <u>and</u> I4 Stabilize material while unloading to reduce fugitive dust emissions.	<input type="checkbox"/> Use tarps or other suitable enclosures on haul trucks. <input type="checkbox"/> Comply with track-out prevention/mitigation requirements. <input type="checkbox"/> Provide water while loading and unloading to reduce visible dust plumes.
Landscaping	J1 Stabilize soils, materials and slopes.	<input type="checkbox"/> Apply water to materials to stabilize. <input type="checkbox"/> Maintain materials in a crusted condition. <input type="checkbox"/> Maintain effective cover over materials <input type="checkbox"/> Stabilize sloping surfaces using soil binders until vegetation or ground cover can effectively stabilize the slopes <input type="checkbox"/> Hydroseed prior to rainy season.
Road shoulder maintenance	K1 Apply water to unpaved shoulders prior to clearing; <u>and</u> K2 Apply chemical dust suppressants and/or other appropriate material in accordance with DOT specifications to maintain a stabilized surface after completing road shoulder maintenance.	<input type="checkbox"/> Installation of curbing and/or paving of road shoulders can reduce recurring maintenance costs. <input type="checkbox"/> Use of chemical dust suppressants can inhibit vegetation growth and reduce future road shoulder maintenance costs.

RULE 223-1 TABLE 1
BEST MANAGEMENT PRACTICE
(Construction and Other Earthmoving Activities)

Source Category	Control Measure	Guidance
Screening	L1 Pre-water material prior to screening; <u>and</u> L2 Limit fugitive dust emissions to opacity and plume length standards; <u>and</u> L3 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. <input type="checkbox"/> Install wind barrier with a porosity of no more than 50% upwind of screen to the height of the drop point.
Staging areas	M1 Stabilize staging areas during use; <u>and</u> M2 Stabilize staging area soils at project completion.	<input type="checkbox"/> Limit size of staging area. <input type="checkbox"/> Limit vehicle speeds to prevent visible dust in excess of standards per 223-1.4.A. <input type="checkbox"/> Limit number and size of staging area entrances/exits.
Stockpiles/Bulk Material Handling	N1 Stabilize stockpiled materials. N2 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 water irrigation system that is capable of complete stockpile coverage.	<input type="checkbox"/> Add or remove material from the downwind portion of the storage pile. <input type="checkbox"/> Maintain storage piles to avoid slides.
Traffic areas for construction activities	O1 Stabilize or maintain adequate moisture on all off-road traffic and parking areas; <u>and</u> O2 Stabilize or maintain adequate moisture on all haul routes; and O3 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	P1 Stabilize surface soils where trencher or excavator and support equipment will operate; <u>and</u> P2 Stabilize soils at the completion of trenching activities.	<input type="checkbox"/> Pre-watering of soils prior to trenching is an effective preventive measure. <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	Q1 Pre-water material prior to loading; <u>or</u> Q2 Apply water as loader bucket is being emptied; <u>and</u> Q2 Freeboard must be 6 inches or greater (VCS 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.

RULE 223-1 TABLE 1
BEST MANAGEMENT PRACTICE
(Construction and Other Earthmoving Activities)

Source Category	Control Measure	Guidance
Turf Overseeding	R1 Apply sufficient water immediately prior to conducting turf vacuuming activities to meet opacity and plume length standards; <u>and</u> R2 Cover haul vehicles prior to exiting the site.	<input type="checkbox"/> Haul waste material immediately off-site.
Unpaved roads/parking lots	S1 Stabilize soils to meet the applicable performance standards(Surface crusting); <u>and</u> S2 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	T1 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.	<input type="checkbox"/> Installing barriers, curbs, fences, gates, posts, signs, shrubs, trees or other effective control measures to prevent access to motor or off-road vehicles.

**RULE 223-1 TABLE 2
BEST MANAGEMENT PRACTICE
(Bulk Material Handling)**

Source Category	Control Actions
Handling Of Bulk Materials	A1 When handling bulk materials, apply water or chemical/organic stabilizers/suppressants;
Storage of Bulk Materials	B1 When storing bulk materials, comply with the conditions for a stabilized surface; <u>or</u> B2 Cover bulk materials stored outdoors with tarps, plastic or other suitable material and anchor in such a manner that prevents the cover from being removed by wind action; <u>or</u> B3 Construct and maintain wind barriers with less than 50% porosity. If utilizing fences or wind barriers, apply water or chemical/organic stabilizers/suppressants; <u>or</u> B4 Utilize a 3-sided structure with a height at least equal to the height of the storage pile and with less than 50% porosity.
On-Site Transporting of Bulk Materials	C1 Limit vehicular speed while traveling on the work site; <u>or</u> C2 Load all haul trucks such that the freeboard is not less than six (6) inches when material is transported across any paved public access road; <u>or</u> C3 Apply water to the top of the load; <u>or</u> C4 Cover haul trucks with a tarp or other suitable cover.
Off-Site Transporting of Bulk Materials	D1 Clean the interior of the cargo compartment or cover the cargo compartment before the empty truck leaves the site; <u>and</u> D2 Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides and/or tailgate; <u>and</u> D3 Load all haul trucks such that the freeboard is not less than six (6) inches when material is transported on any paved road, and apply water to the top of the load; or cover haul trucks with a tarp or other suitable cover.
Outdoor Transport Of Bulk Materials With A Chute Or Conveyor:	E1 Fully enclose the chute or conveyor; <u>or</u> E2 Operate water spray equipment; <u>or</u> E3 Wash separated or screened materials to remove conveyed materials having an aerodynamic diameter of 10 microns or less.

**RULE 223-1 TABLE 3
BEST MANAGEMENT PRACTICE
(Removal and Prevention of Trackout)**

Source Category	Control Actions
Removal of Trackout Material	A1 Manually sweeping and picking-up; <u>or</u> A2 Operating a rotary brush or broom accompanied or preceded by sufficient wetting; <u>or</u> A3 Operating a PM10-efficient street sweeper; <u>or</u> A4 Flushing with water, where the use of water will not result in adverse impacts on storm water drainage systems or violate any National Pollutant Discharge Elimination System permit program; <u>and</u> A5 <u>The use of blower devices, or dry rotary brushes or dry brooms is expressly prohibited.</u>
Frequency of Trackout Material Removal	B1 At the minimum trackout must be removed at the end of the day; <u>and</u> B2 Trackout must be immediately removed when it extends 50 feet or more from the nearest unpaved surface exit point of a site; <u>and</u> B3 On interior paved roads trackout must be removed at least once per workday.
Trackout Prevention for Large Operations or Sites with more than 150 vehicle trips/day.	C1 Installation of grizzlies, or similar devices designed to remove dirt/mud from tires; <u>or</u> C2 Installation of gravel pads; <u>or</u> C3 Paving of interior roads.

RULE 223-1 TABLE 4
BEST MANAGEMENT PRACTICE
(Blasting Activities)

Source Category	Control Measure	Guidance
Site Preparation (drilling, setting charges, burial of charges)	A1 Reduce dust from drilling operation A2 Pre-wet blast area A3 Cover charges to minimize dust	<input type="checkbox"/> Control rate of drilling <input type="checkbox"/> Apply water fog <input type="checkbox"/> Place blast mats over charges <input type="checkbox"/> Place soil mounds over charges <input type="checkbox"/> Wet entire area prior to blasting
Blasting activities	B1 Dust cannot exceed 50 ft or cross the project property line	<input type="checkbox"/> Conduct blasting on calm days <input type="checkbox"/> Consider wind direction with respect to your property line, nearby residences and other receptors.
Post-Blasting Activities	C1 Follow Best Management Practice for all construction activities (Rule 223-1, Table 1)	

**RULE 223-1 TABLE 5
DUST CONTROL MEASURES FOR LARGE OPERATIONS**

Source Category	Control Actions
Earth-moving (except construction cutting and filling areas, and mining operations)	<p>A1 Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Air Pollution Control Officer. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations each subsequent four-hour period of active operations; <u>or</u></p> <p>A2 For any earth-moving which is more than 50 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 50 feet in length in any direction. Visible emissions must not extend beyond property boundary.</p>
Earth-moving: Construction fill areas:	<p>B1 Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Air Pollution Control Officer. For areas which have an optimum moisture content for compaction of less than 12 percent, as determined by ASTM Method 1557 or other equivalent method approved by the Air Pollution Control Officer complete the compaction process as expeditiously as possible after achieving at least 70 percent of the optimum soil moisture content. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations during each subsequent four hour period of active operations; <u>or</u></p> <p>B2 For any earth-moving which is more than 50 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 50 feet in length in any direction. Visible emissions must not extend beyond property boundary.</p>
Earth-moving: Construction cut areas	<p>C1 Conduct watering as necessary to prevent any visible emissions from extending beyond property boundary.</p>
Disturbed surface areas: (except completed grading areas)	<p>D1 Apply dust suppression in sufficient quantity and frequency to maintain a stabilized surface. Any areas which cannot be stabilized, as evidenced by wind driven fugitive dust must have an application of water at least twice per day to at least 80 percent of the unstabilized area.</p>
Disturbed surface areas: Completed grading areas	<p>E1 Apply chemical stabilizers within five working days of grading completion; <u>or</u></p> <p>E2 Take actions F1 or F3 specified for inactive disturbed surface areas.</p>

**RULE 223-1 TABLE 5
DUST CONTROL MEASURES FOR LARGE OPERATIONS**

Source Category	Control Actions
Inactive disturbed surface areas	<p>F1 Apply water to at least 80 percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind driven fugitive dust, excluding any areas which are inaccessible to watering vehicles due to excessive slope or other safety conditions; <u>or</u></p> <p>F2 Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; <u>or</u></p> <p>F3 Establish a vegetative ground cover within 21 days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter; <u>or</u></p> <p>F4 Utilize any combination of control actions F1, F2 and F3 such that, in total, these actions apply to all inactive disturbed surface areas.</p> <p>F5 Establishment and maintenance of surface crusting sufficient to satisfy the test in Section 223-1.10</p> <p>F6 Approved mixture of tackifier and fiber mulch, applied per manufacturer's recommendation.</p>
Unpaved Roads	<p>G1 Water all roads used for any vehicular traffic at least once per every two hours of active operations or as often as necessary; <u>or</u></p> <p>G2 Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface; <u>and</u></p> <p>G3 Restrict vehicle speeds where necessary ;</p>
Open storage piles	<p>H1 Apply chemical stabilizers; <u>or</u></p> <p>H2 Apply water to at least 80 percent of the surface area of all open storage piles on a daily basis when there is evidence of wind driven fugitive dust; <u>or</u></p> <p>H3 Install temporary coverings; <u>or</u></p> <p>H4 Install a three-sided enclosure with walls with no more than 50 percent porosity which extend, at a minimum, to the top of the pile. This option may only be used at aggregate-related plants or at cement manufacturing facilities.</p>
All Categories	<p>I1 Any other control measures approved by the Air Pollution Control Officer as equivalent to the methods specified in Table 5 may be used.</p>

RULE 223-1 TABLE 6
CONTINGENCY DUST CONTROL MEASURES FOR LARGE OPERATIONS

Source Category	Control Actions
Earth-moving	A1 Cease all active operations except for dust mitigation activities; <u>or</u> A2 Apply water to soil not more than 15 minutes prior to moving such soil; <u>and</u> A3 Apply water during soil moving or disturbance operations.
Disturbed surface areas	B1 On the last day of active operations prior to a weekend, holiday or any other period when active operations will not occur for not more than four consecutive days: apply water with a mixture of chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months; <u>or</u> B2 Apply chemical stabilizers prior to wind event; <u>or</u> B3 Apply water to all unstabilized disturbed areas 3 times per day. If there is any evidence of wind driven fugitive dust, watering frequency is increased to a minimum of four times per day; <u>or</u> B4 Take the actions specified in Table 5, control action F3; <u>or</u> B5 Utilize any combination of control actions B1, B2 and B3B such that, in total, these actions apply to all disturbed surface areas.
Unpaved roads	C1 Apply chemical stabilizers prior to wind event; <u>or</u> C2 Apply water twice per hour during active operation; <u>or</u> C3 Stop all vehicular traffic, except for dust mitigation equipment.
Open storage piles	D1 Apply water twice per hour; <u>or</u> D2 Install temporary coverings.
Bulk Material Transport	E1 Cover all haul vehicles; <u>or</u> E2 Freeboard must be 6 inches or greater (VCS 23114)
All Categories	F1 Any other control measures approved by the Air Pollution Control Officer as equivalent to the methods specified in Table 6 may be used.