

EL DORADO COUNTY AIR QUALITY MANAGEMENT DISTRICT

RULE 223 – FUGITIVE DUST – GENERAL REQUIREMENTS

(Adopted September, 1982; Amended 07/19/2005)

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223.1 GENERAL

- A. PURPOSE:** The purpose of this Rule is to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (man-made) fugitive dust sources by requiring actions to prevent, reduce or mitigate fugitive dust emissions.
- B. APPLICABILITY:** The provisions of this rule are applicable to specified outdoor fugitive dust sources. The definitions, exemptions, requirements, administrative requirements, recordkeeping requirements, and test methods set forth in this rule are applicable to Rules 223, 223-1 and 223-2 of the Rules and Regulations of the El Dorado County Air Quality Management District.

223.2 EXEMPTIONS

The provisions of this Rule shall not apply to:

- A.** Agricultural activities conducted and maintained for commercial agricultural purposes excluding construction and construction related activities. If there is a question regarding whether an activity is an agricultural activity or a commercial agricultural activity, the Air Pollution Control Officer shall consult with the El Dorado County Agricultural Commissioner.
- B.** Active operations conducted during emergency life-threatening situations, or in conjunction with any officially declared disaster or state of emergency, or to attend to uncontrolled fires.
- C.** Active operations conducted by essential service utilities to provide electricity, natural gas, telephone, water and sewer during periods of service outages and emergency disruptions.
- D.** Fire hazard abatement, or vegetation clearing for fire defense purposes ordered by any state, county, or municipal fire department, or that is required by a local ordinance. The provisions of this clause shall not exempt the owner of any property from controlling fugitive dust emissions emanating from disturbed surface areas and inactive disturbed surface areas created as a result of the exempt activity.
- E.** Any active operation, open storage pile, or disturbed surface area for which necessary fugitive dust preventive or mitigating actions are in conflict with the California or Federal Endangered Species Acts, as determined by the State or Federal agency responsible for making such determinations.
- F.** Emergency maintenance of flood control or irrigation channels, canals and water spreading basins.
- G.** Unpaved roads, which are not part of construction and construction related activities, or where no nuisance or health hazard is created by its usage, until December 31, 2009 or adoption of a specific unpaved road rule, whichever is sooner.

223.3 DEFINITIONS

- A. ACCESS ROAD:** any road extending from a public thoroughfare onto the property of a construction project, quarry, or surface mining operation.
- B. ACTIVE OPERATIONS:** Any activity capable of generating fugitive dust, including, but not limited to, earth-moving activities, construction activities, disturbed surface areas or heavy- and

light-duty vehicular movement on disturbed surface areas, including inactive disturbed surface areas, and unpaved roads within a construction or a development project.

- C. **AGRICULTURAL ACTIVITY:** Any activity, operation, facility, or appurtenances thereof, including, but not limited to, the cultivation and tillage of the soil, dairying, the production, cultivation, growing, and harvesting of any agricultural commodity including timber, viticulture, apiculture, or horticultural, the raising of livestock, fur bearing animals, fish, or poultry, and game birds, and any practices performed by a farmer or on a farm incident to or in conjunction with those farming operations, including preparation for market, delivery to storage or to market, or delivery to carriers for transportation to market.
- D. **BLASTING:** Blasting is a process used to create/clear an area by using explosives.
- E. **BOUNDARY 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. This may include all or portions of a legal parcel or parcels as defined by the El Dorado County Assessor.
- F. **BULK MATERIAL:** Any material which can emit dust when stored, disturbed, or handled, and is generally un-packaged, including sand, gravel, soil, aggregate material less than two inches in length or diameter and other organic or inorganic particulate matter.
- G. **CHEMICAL STABILIZERS:** A non-toxic chemical dust suppressant which must not be used if prohibited for use by the Regional Water Quality Control Boards, the California Air Resources Board, the Environmental Protection Agency, or any applicable law, rule or regulation; and should meet any specifications, criteria, or tests required by any federal, state, or local water agency. Unless otherwise indicated, the use of a non-toxic chemical stabilizer shall be of sufficient concentration and application frequency to maintain a stabilized surface.
- H. **CONSTRUCTION OR CONSTRUCTION RELATED ACTIVITIES:** Any on-site mechanical activities preparatory to 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. This does not include EDCAQMD permitted stationary sources except for construction activities at the source.
- I. **CONTRACTOR:** Any person who has a contractual arrangement to conduct an active operation subject to this Rule for another person.
- J. **DISTURBED SURFACE AREA:** A portion of the earth's surface that has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed natural soil condition, thereby increasing the potential for emissions of fugitive dust. This definition excludes those areas that have:
 - 1. Been restored to a natural state, such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby natural conditions;
 - 2. Been paved or otherwise covered by a permanent structure; or
 - 3. Sustained a vegetative ground cover over at least 95 percent of an area for a period of at least 6 months.

- K. **DUST SUPPRESSANTS:** Water, hygroscopic materials, or non-toxic chemical stabilizers used as a treatment material to reduce fugitive dust emissions.
- L. **EARTH-MOVING ACTIVITIES:** Include, but are not limited to, 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, or soil mulching.
- M. **EDCAQMD:** El Dorado County Air Quality Management District
- N. **FUGITIVE DUST:** Any solid particulate matter that becomes airborne, without first passing through a stack or duct, directly or indirectly as a result of the activities of man (i.e. anthropogenic), including the raising and/or keeping of animals.
- O. **GRAVEL PAD:** a layer of gravel, rock, or crushed rock which is at least one inch or larger in diameter and less than five (5) percent silt content, maintained at the point of intersection of a paved public roadway and a work site entrance to dislodge mud, dirt, and debris from tires of motor vehicles and haul trucks prior to leaving a worksite.
- P. **GRIZZLY:** a device used to dislodge mud, dirt, and debris from the tires and undercarriage of motor vehicles and haul trucks prior to leaving the work site.
- Q. **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 seven (7) consecutive days.
- R. **LARGE OPERATIONS:** any active operations on property which contains 50 or more acres of disturbed surface area.
- S. **NON-ROUTINE:** Any non-periodic active operation that occurs no more than three (3) times per year, lasts less than 30 cumulative days per year, and is scheduled less than 30 days in advance.
- T. **OPEN STORAGE PILE:** Any accumulation of bulk material, which is not fully enclosed, covered, or chemically stabilized.
- U. **OWNER/OPERATOR OR PERSON:** includes, but is not limited to:
1. An individual, trust, firm, joint stock company, business concern, partnership, limited liability company, association, or corporation including, but not limited to, a government corporation;
 2. Any city, county, district, commission, the state or any department, agency, or political subdivision thereof, any interstate body, and the federal government or any department or agency thereof to the extent permitted by law; or
 3. A project proponent and any of its contractors or subcontractors.
- V. **PARTICULATE MATTER:** Any material, except uncombined water, which exists in a finely divided form as a liquid or solid at standard conditions.
- W. **PAVED ROAD:** An improved street, highway, alley, public way, or easement that is covered by typical roadway materials. Public paved roads are those open to public access and that are under the jurisdiction of any federal, state, county, municipal or any other governmental or quasi-

governmental agencies, including gated communities and Zone of Benefit maintained roads. Private paved roads are any paved roads not defined as public.

- X. **PAVING:** creating a cover consisting of portland cement, asphalt concrete, asphaltic concrete, recycled asphalt, or chip seal.
- Y. **PM10:** Is particulate matter with an aerodynamic diameter smaller than or equal to a nominal 10 microns as measured by an applicable reference test method or methods found in Article 2, Subchapter 6, Title 17, California Code of Regulations (commencing with Section 94100).
- Z. **PROJECT BOUNDARIES:** the right-of-way and any construction easements adjacent to and necessary for the purposes of a specific road construction project or maintenance activity.
- AA. **PROPERTY:** any real property including, but not limited to, any contiguous parcel or parcels of land and anything attached to, or erected on it.
- BB. **ROAD CONSTRUCTION AND MAINTENANCE:** Activities undertaken to build roads, highways, railroads, bridges, culverts, drains and other works incidental to road or highway construction and maintenance activities that involve grading or excavation.
- CC. **ROAD SURFACE:** the traveled way of a road and any shoulder which may extend up ten (10) feet from the edge of the traveled way.
- DD. **SIMULTANEOUS SAMPLING:** The operation of two PM10 samplers in such a manner that one sampler is started within five (5) 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.
- EE. **STABILIZED SURFACE:** any previously disturbed surface area or open storage pile which shows visual or other evidence of resistance to wind generated fugitive dust. This can be accomplished through the application of dust suppressants, tillage, vegetative or mechanical ground cover, or other mechanisms to create a stable surface. Efficiency of surface stabilization can be measured pursuant to the Surface Crusting Test as applicable for construction operations.
- FF. **TRACK-OUT/CARRY-OUT:** Any and all bulk materials that adhere to and agglomerate on the exterior surfaces of motor vehicles and/or equipment (including tires) that have been released onto a paved road.
- GG. **UNPAVED ROADS:** Any unsealed or unpaved roads, equipment paths, or travel ways that are not covered by one of the following: concrete, asphaltic concrete, recycled asphalt or asphalt. Public unpaved roads are any unpaved roadway under the jurisdiction of any federal, state, county, municipal or other governmental or quasi-governmental agencies. Private unpaved roads are all other unpaved roadways not defined as public.
- HH. **VISIBLE EMISSIONS:** Any particulate matter that is visually detectable without the aid of instruments other than corrective lenses.
- II. **VISIBLE ROADWAY DUST:** Any sand, soil, dirt, or other solid particulate matter which is visible upon paved road surfaces and can be removed by a vacuum sweeper or a wet sweeper under normal operating conditions.
- JJ. **WIND-GENERATED DUST:** Visible emissions from any disturbed surface area that is generated by wind action alone.

223.4 REQUIREMENTS

- A. VISIBLE EMISSIONS NOT ALLOWED BEYOND BOUNDARY LINE:** A person shall not cause or allow the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area, such that the presence of such fugitive dust remains visible, or exceed shade darker as that designated as No. 0 on the Ringelmann Chart, or exceed 0% opacity as determined in accordance with US EPA Method 9, in the atmosphere beyond the boundary line of the emission source.
- B. CONCENTRATION LIMIT:** A person shall not cause or allow PM10 levels to exceed 50 micrograms per cubic meter, 24 hour average, when determined, by simultaneous sampling, as the difference between upwind and downwind samples collected on high-volume particulate matter samplers or other U.S. EPA approved equivalent methods for PM10 monitoring. Sampling, if deemed necessary and required by the Air Pollution Control Officer, shall be conducted in accordance with the procedures specified in Section 223.5.A.

223.5 MONITORING AND RECORDKEEPING

A. MONITORING:

1. Sampling to determine compliance with the particulate matter concentration limit of Section 223.4.B is only required when deemed necessary by the Air Pollution Control Officer.
2. The conduct of sampling to demonstrate compliance with Section 223.4.B may be required, with reasonable notice, of the person discharging emissions, or sampling may be conducted by the EDCAQMD with the costs of sampling, not to exceed actual costs, borne by the person discharging emissions.
3. Samplers shall be operated, maintained, and calibrated in accordance with 40 CFR Part 50, Appendix J, or appropriate U.S. EPA published documents for U.S. EPA approved equivalent method(s) for PM10.
4. Samplers shall be placed upwind and downwind of key activity areas and as close to the boundary line as feasible, such that other sources of fugitive dust between the sampler and the boundary line are minimized.
5. Procedures for the conduct of simultaneous sampling to determine compliance with Section 223.4.B, and the reporting of results, shall be approved by the Air Pollution Control Officer.

B. 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 only for those days that a control measure was implemented.
2. Such records shall include the type of fugitive dust 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. 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.

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)

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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	<p>R1 Apply sufficient water immediately prior to conducting turf vacuuming activities to meet opacity and plume length standards; <u>and</u></p> <p>R2 Cover haul vehicles prior to exiting the site.</p>	<p><input type="checkbox"/> Haul waste material immediately off-site.</p>
Unpaved roads/parking lots	<p>S1 Stabilize soils to meet the applicable performance standards(Surface crusting); <u>and</u></p> <p>S2 Limit vehicular travel to established unpaved roads (haul routes) and unpaved parking lots.</p>	<p><input type="checkbox"/> Restricting vehicular access to established unpaved travel paths and parking lots can reduce stabilization requirements.</p>
Vacant land	<p>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.</p>	<p><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.</p>

**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; <u>or</u> 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	<p>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></p>
Frequency of Trackout Material Removal	<p>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.</p>
Trackout Prevention for Large Operations or Sites with more than 150 vehicle trips/day.	<p>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.</p>

**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	<p>A1 Cease all active operations except for dust mitigation activities; <u>or</u></p> <p>A2 Apply water to soil not more than 15 minutes prior to moving such soil; <u>and</u></p> <p>A3 Apply water during soil moving or disturbance operations.</p>
Disturbed surface areas	<p>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></p> <p>B2 Apply chemical stabilizers prior to wind event; <u>or</u></p> <p>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></p> <p>B4 Take the actions specified in Table 5, control action F3; <u>or</u></p> <p>B5 Utilize any combination of control actions B1, B2 and B3B such that, in total, these actions apply to all disturbed surface areas.</p>
Unpaved roads	<p>C1 Apply chemical stabilizers prior to wind event; <u>or</u></p> <p>C2 Apply water twice per hour during active operation; <u>or</u></p> <p>C3 Stop all vehicular traffic, except for dust mitigation equipment.</p>
Open storage piles	<p>D1 Apply water twice per hour; <u>or</u></p> <p>D2 Install temporary coverings.</p>
Bulk Material Transport	<p>E1 Cover all haul vehicles; <u>or</u></p> <p>E2 Freeboard must be 6 inches or greater (VCS 23114)</p>
All Categories	<p>F1 Any other control measures approved by the Air Pollution Control Officer as equivalent to the methods specified in Table 6 may be used.</p>

EL DORADO COUNTY AIR QUALITY MANAGEMENT DISTRICT

RULE 223-2 FUGITIVE DUST – ASBESTOS HAZARD MITIGATION

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

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REFERENCE A - Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying and Surface Mining, Section 93105, Title 17, California Code of Regulations

REFERENCE B - Asbestos Airborne Toxic Control Measure For Surfacing Applications, Section 93106, Title 17, California Code of Regulations

5-2.1 GENERAL

A. **PURPOSE:** The purpose of this Rule is to reduce the amount of asbestos particulate matter entrained in the ambient air as a result of any construction or construction related activities, that disturbs or potentially disturbs naturally occurring asbestos by requiring actions to prevent, reduce or mitigate asbestos emissions.

B. **APPLICABILITY:** Unless one of the exemptions specified in Section 223-2.2 Exemptions applies, this Rule shall apply to any **construction or construction related activity** that:

1. is in excess of 20 cubic yards of graded material per project, or if required by the Air Pollution Control Officer **and**
2. meets **either** of the following criteria:
 - . Any portion of the area to be disturbed:
 - . is located in a geographic ultramafic rock unit, **or**
 - . has naturally-occurring asbestos, serpentine or ultramafic rock as determined by owner/operator, Professional Geologist or the Air Pollution Control Officer, **or**
 - ii. is located within designated Naturally Occurring Asbestos Review Areas on the current El Dorado County Naturally Occurring Asbestos Review Area Map
 - . 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.

C. ASBESTOS RELATED STATE OF CALIFORNIA REGULATIONS

1. In addition to the requirements of this rule there are two State of California regulations for asbestos control that are applicable within El Dorado County and enforceable by the El Dorado County Air Quality Management District (EDCAQMD). These two asbestos control regulations are Attachments A and B to this rule.

Reference A: Asbestos Airborne Toxic Control Measure (ATCM) for Construction, Grading, Quarrying and Surface Mining Operations (California Code of Regulations, Title 17, Section 93105)

- . Reference B: Asbestos Airborne Toxic Control Measure (ATCM) for Surfacing Applications (California Code of Regulations, Title 17, Section 93106)

1. A person who is subject to the Asbestos Airborne Toxic Control Measure (ATCM) for Construction, Grading, Quarrying and Surface Mining Operations (California Code of Regulations, Title 17, Section 93105) is required to comply with the following sections in addition to the requirements under the ATCM:
 - a. Section 223-2.4.A. regarding the visible emission standards.
 - b. Section 223-2.4.C: regarding the suspension of operations under high wind conditions.
 - c. Section 223-2.4.D: regarding the posting of Asbestos Warning signs.
 - d. Section 223-2.6.A and B: regarding trackout removal.

- e. Section 223-2.6.D: regarding disposal of asbestiform containing soils removed by excavation.
- e. Section 223-2.6.E: regarding 30-day time limit and other requirements for completion of post construction stabilization/mitigation.

223-2.2 EXEMPTION

A. GENERAL: Exemptions as defined in EDCAQMD Rule 223.2 A through F shall apply to this rule.

B. GEOLOGIC EVALUATION: The Air Pollution Control Officer may provide an exemption from this Rule for any property that meets at least one of the criteria in Section 223-2.1.B if a Professional Geologist has **conducted** a geologic evaluation of the property and determined that no serpentine or ultramafic rock, or asbestos, is likely to be found in the area to be disturbed. Before an exemption can be granted, the owner/operator must provide a copy of a report detailing the geologic evaluation to the Air Pollution Control Officer for his or her consideration.

1. At a minimum, the geologic evaluation must include:
 - a. A general description of the property and the proposed use;
 - b. A detailed site characterization which may include:
 - . A physical site inspection;
 - . Offsite geologic evaluation of adjacent property;
 - . Evaluation of existing geological maps and studies of the site and surrounding area;
 - . Development of geologic maps of the site and vicinity;
 - . Identification and description of geologic units, rock and soil types, and features that could be related to the presence of ultramafic rocks, serpentine, or asbestos mineralization; and
 - . A subsurface investigation to evaluate the nature and extent of geologic materials in the subsurface where excavation is planned; methods of subsurface investigation may include, but are not limited to borings, test pits, trenching, and geophysical surveys;
 - c. A classification of rock types found must conform to the nomenclature based on the International Union of Geological Science system;
 - d. A description of the sampling procedures used;
 - e. A description of the analytical procedures used, which may include mineralogical analyses, petrographic analyses, chemical analyses, or analyses for asbestos content;
 - f. An archive of collected rock samples for third party examination (to be kept for at least one year after the completion of the project); and
 - g. A geologic evaluation report documenting observations, methods, data, and findings; the format and content of the report should follow the Guidelines for the Assessment of Naturally Occurring Asbestos issued by the California Geologic Survey.
2. The Air Pollution Control Officer may request any additional tests or other information needed to evaluate an application for exemption
3. The Air Pollution Control Officer shall grant or deny a request for an exemption within 30 days of the receipt of a complete application.
4. If the request for an exemption is denied, the Air Pollution Control Officer shall provide written reasons for the denial.

5. Expiration of the Geologic Exemption: If the owner/operator discovers any naturally-occurring asbestos, serpentine, or ultramafic rock in the area to be disturbed after the exemption is granted, then:
 - a. The owner/operator must comply with the requirements of this Rule.
 - b. The owner/operator must report the discovery of the naturally-occurring asbestos, serpentine or ultramafic rock to the Air Pollution Control Officer no later than the next business day.
 - g. The exemption under Section 223-2.2.B shall expire and cease to be effective.

223-2.3 DEFINITIONS

In addition to the definitions of terms in EDCAQMD Rule 223 (General Requirements), the following definitions shall apply to this rule.

- E. **ADEQUATELY WETTED:** sufficiently moistened with water to minimize the release of particulate matter into the ambient air.
- F. **APPROVED ASBESTOS BULK TEST METHOD:** ARB Test Method 435 or an alternative asbestos bulk test method approved in writing by the Executive Officer of the California Air Resources Board.
- G. **ARB:** the California Air Resources Board.
- H. **ARB TEST METHOD 435:** the test method specified in title 17, California Code of Regulations, Section 94147.
- I. **ASBESTOS:** asbestiforms of the following minerals: chrysotile (fibrous serpentine), crocidolite (fibrous riebeckite), amosite (fibrous cummingtonite--grunerite), asbestiform amphiboles (e.g. edenite, winchite and richterite), fibrous tremolite, fibrous actinolite, fibrous anthophyllite and tremolite/actinolite solution series of asbestiform minerals.
- J. **ASBESTOS-CONTAINING MATERIAL:** any material that has asbestos content of 0.25 percent or greater by ARB test method 435.
- K. **ASBESTOS CONTAINING WASTE or ACW:** asbestos containing waste managed at a landfill as authorized by Section 25143.7, chapter 6.5 of the California Health and Safety Code, which contains greater than (1%) friable asbestos by weight. Asbestos containing waste does not include waste contaminated with another hazardous waste as identified in chapter 11, division 4.5, Title 22, California Code of Regulations.
- L. **ASBESTOS DUST MITIGATION PLAN:** a detailed written document specifying measures that would be implemented to minimize the emissions of asbestos-laden dust.
- D. **EL DORADO COUNTY NATURALLY OCCURRING ASBESTOS REVIEW AREA MAP:** a map created by adding mapping accuracy buffers to (1) faults and areas likely to contain asbestos as shown on the March 2000 Department of Mines and Geology "Areas More Likely to Contain Naturally-Occurring Asbestos in Western El Dorado County, California" map and (2) documented discovery sites containing at least 0.25% Asbestos. The most current map is provided on the EDCAQMD website and is available at the El Dorado County Surveyor's office.

- E. **GEOGRAPHIC ULTRAMAFIC ROCK UNIT:** a geographic area that is designated as an ultramafic rock unit or ultrabasic rock unit, including the unit boundary line, on any of the maps referenced in Appendix A of the Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying and Surface Mining, Section 93105, Title 17, California Code of Regulations
- F. **GEOLOGIC EVALUATION:** an evaluation of a property by a Professional Geologist to determine the presence of various types of rocks, including but not limited to ultramafic rock, serpentinite, or other metamorphic derivatives of ultramafic rock.
- G. **HEPA FILTER:** a High Efficiency Particulate Air filter used to remove particles less than one (1) micron in aerodynamic diameter that operates at removal efficiencies of 99.9 percent or greater.
- H. **NATURALLY-OCCURRING ASBESTOS:** asbestos that has not been processed in an asbestos mill or is not asbestos mine tailings.
- I. **PROFESSIONAL GEOLOGIST:** an individual who is currently licensed as a geologist with the State of California, Department of Consumer Affairs, Board of Geology and Geophysicists.
- J. **REMOTE LOCATION:** any location that is at least one (1.0) mile from the location of a receptor.
- K. **RECEPTOR:** includes, but is not limited to, any hospital, school, day care center, work site, business, residence, and permanent campground. The distance to the nearest receptor is to be measured from the outermost limit of the area to be disturbed or road surface, whichever is closer.
- L. **SERPENTINE:** any form of the following hydrous magnesium silicate minerals: antigorite, lizardite, and chrysotile.
- M. **SERPENTINITE:** a rock consisting almost entirely of serpentine, although small amounts of other minerals such as magnetite, chromite, talc, brucite, and tremolite-actinolite may also be present. "Serpentinite" is a metamorphic derivative of the ultramafic rocks, peridotite, pyroxenite, or dunite.
- N. **ULTRABASIC ROCK:** ultramafic rock.
- O. **ULTRAMAFIC ROCK:** an igneous rock composed of 90 percent or greater of one or a combination of the following iron/magnesium-rich, dark-colored silicate minerals: olivine, pyroxene or more rarely amphibole. For the purposes of this section, "ultramafic rock" includes the following rock types: dunite, pyroxenite and peridotite; and their metamorphic derivatives.
- P. **VEGETATIVE COVER:** ground cover with sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter.

1-9.1 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 25 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.

A. Vehicle Speed Limitations and Posting of Speed Limit Signs

1. An owner/operator shall limit the speed of vehicles traveling within construction sites to a maximum of 15 miles per hour.
2. An owner/operator shall post speed limit signs limiting vehicle speed to maximum of 15 miles per hour that meet State and Federal Department of Transportation standards at each construction site's uncontrolled unpaved access/haul road entrance.

C. When sustained wind speeds result in visible dust emissions in excess of the standards in Section 223-2.4 A., despite the application of dust mitigation measures, grading and earthmoving operations except except for dust mitigation activities shall be suspended

D. Warning Signs shall be posted at the main entrance(s) to the project for the duration of soil disturbance activities. Signs shall be posted in letter of sufficient size as to be readily visible and legible. The following wording is recommended: "Warning. Soils in the area may contain naturally occurring asbestos. Asbestos is a known carcinogen. Report excessive fugitive dust to the contractor at (contractor phone number), NOA Hotline: 888-FY14NOA or EDCAQMD: 530-621-6662"

I. Following operations and activities are expressly prohibited:

2. Rock crushing of asbestos-containing material;
2. Use of blower devices for any removal of asbestos-containing material.

223-2.5 ADMINISTRATIVE REQUIREMENTS

A. Asbestos Dust Mitigation Plan

1. An owner/operator shall submit an Asbestos Dust Mitigation Plan to the Air Pollution Control Officer prior to the start of any construction activity that is applicable to this rule. An updated Asbestos Dust Mitigation 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 Asbestos Dust Mitigation Plan. An owner/operator shall provide written notification to the Air Pollution Control Officer at least 10 days prior to the commencement of earthmoving activities via fax or mail. Projects that are less than 1 acre shall provide notification to the Air Pollution Control Officer at least 48 hours prior to earthmoving activities via fax or mail. The requirement to submit an Asbestos Dust Mitigation 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 Asbestos Dust Mitigation 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 Asbestos Dust Mitigation Plan shall specify the expected start and final completion date of each project.

3. Asbestos Dust Mitigation Plan shall describe all dust mitigation measures to be implemented before, during and after any dust generating activity.
4. Asbestos Dust Mitigation Plan shall contain all the information described in Section 223-2.5.B. The Air Pollution Control Officer shall approve, disapprove or conditionally approve the Asbestos Dust Mitigation Plan within 30 days of plan submittal.
5. An owner/operator shall retain a copy of an approved Asbestos Dust Mitigation Plan at the project site. The approved Asbestos Dust Mitigation Plan shall remain valid until the termination of all dust generating activities. Failure to comply with the provisions of an approved Asbestos Dust Mitigation Plan is deemed to be a violation of this rule. Regardless of whether an approved Asbestos Dust Mitigation Plan is in place or not, or even when the owner/operator responsible for the plan is complying with an approved Asbestos Dust Mitigation Plan, the owner/operator shall comply also with all requirements of this Rule at all times.

B. An Asbestos Dust Mitigation Plan shall contain all of the following information:

0. Name(s), address(s), and phone number(s) of person(s) and owner(s)/operator(s) responsible for the preparation, submittal, and implementation of the Asbestos Dust Mitigation Plan and responsible for the dust generating operation and the application of dust control measures.
0. A plot plan which shows the type and location of each project.
0. The total area of land surface to be disturbed and total area in acres of the entire project site.
0. The expected start and completion dates of dust generating and soil disturbance activities to be performed on the site.
0. 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.
0. Best Management Practice (Rule 223-2, Table 1 through 4) or other effective measures for:
 - . Construction
 - . Bulk Material Handling
 - . Carryout and Trackout Management
 - . Blasting Activities
0. Large Operations must include Dust Control Measures (Rule 223-2, Table 5 and 6).
0. 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.
0. 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.

10. Frequency of reporting: The plan shall state how often the items specified in Section 223-2.9. and any other items identified in the plan, will be reported to the EDCAQMD.

223-2.6 REQUIREMENTS FOR TRACKOUT MANAGEMENT, EXCAVATED SOIL MANAGEMENT AND POST-CONSTRUCTION STABILIZATION

- A. An owner/operator shall prevent or cleanup carryout and trackout as specified in Section 223-2.6.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 remove all visible carryout and trackout immediately.
 2. Cleanup of carryout and trackout shall be accomplished by:
 - a. Wet sweeping and picking-up; or
 - b. Operating a HEPA filter equipped vacuum device; or
 - c. 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.
- E. 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 223-2.6.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.
- F. Control for disturbed surface areas and storage piles, shall comply with all applicable requirements of this Rule.
- G. Disposal of asbestiform containing soils removed by excavation:
 1. Placing excavated soils into fills constructed elsewhere on the project.
 - a. The location(s) of such removals and the placement quantities and locations shall be documented.
 - b. Fills with a naturally occurring asbestos content equal to or greater than 1.0% by ARB Test Method 435, or when visually evident fibrous materials likely to be asbestos are present, located in residential landscaping areas shall be covered by at least two feet (24 inches) of non-asbestiform containing material or by concrete or asphalt paving.
 2. It is the owner/operator responsibility that final destination (usage or disposal) and transports of any excavated soils from the project is in conducted in full compliance with pertinent federal,

state and local rules and regulations including CA Title 17, Section 93106, Asbestos Airborne Toxic Control Measure for Surfacing Applications.

3. For any soils transported off-site the following information must be documented, retained for a period of at least 3 years, and provided to the Air Pollution Control Officer upon request:
 - e. Project location
 - f. Laboratory results for any asbestos soil testing done at the project location
 - g. Date(s) of off-site transport(s) of excavated soils
 - h. Location(s) where excavated soils were transported to
 - i. Total quantity transported to each location
 - j. Intended usage (fill, surface application), if the final destination is other than Class II or Class III landfill disposal facility.
- H. Control for off-site transport. The owner/operator shall ensure that no trucks are allowed to transport excavated material off-site unless:
 1. Trucks are maintained such that no spillage can occur from holes or other openings in cargo compartments; and
 2. Loads are adequately wetted; and
 - a. Covered with tarps; or
 - b. Loaded such that the material does not touch the front, back, or sides of the cargo compartment at any point less than six inches from the top and that no point of the load extends above the top of the cargo compartment.
 5. If excavated material is classified as a hazardous waste/material, off-site transport must comply with pertinent State and Federal rules and regulations.
- I. Post construction stabilization of disturbed areas. For multiple phase projects, the property owner shall be responsible for ensuring that the soil be stabilized following each phase of the project using one of the methods listed below or by any other method approved by the APCO. Upon completion of all phases of the project, but no later than 30 days following the end of soil disturbing activities, all disturbed surfaces with naturally occurring asbestos content of equal to or greater than 0.25% by ARB test method 435 shall be stabilized using one or more of the following methods:
 1. Establishment of a vegetative cover;
 2. Placement of non-asbestos containing material on disturbed soil areas shall be as follows:
 - a. At least three (3.0) inches in residential and nonresidential areas;
 - b. A total of at least twelve (12) inches or the maximum depth of irrigation improvements, whichever is higher, in residential landscaping areas with a naturally occurring asbestos content greater than 0.25% by ARB Test Method 435, or when visually evident fibrous materials likely to be asbestos are present;
 3. Paving, building foundations, concrete flatwork or retaining walls

223-2.7. ADDITIONAL REQUIREMENTS FOR LARGE OPERATIONS

- E. 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:

0. Submit a Large Operation Notification to the Air Pollution Control Officer within 7 days of qualifying as a large operation;
0. Maintain daily records to document the specific dust control actions taken, maintain such records for a period of not less than three years; and make such records available to the Air Pollution Control Officer upon request;
0. 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.

223-2.8 AIR MONITORING FOR ASBESTOS

A. Pursuant to the requirements of California Health and Safety Code Section 41511:

1. Air monitoring may be required by the Air Pollution Control Officer.
2. The Air Pollution Control Officer may require revisions to the asbestos dust mitigation plan on the basis of the results of the air monitoring.

. Air monitoring for asbestos (if required by the Air Pollution Control Officer).

0. If required by the Air Pollution Control Officer, the Asbestos Dust Mitigation Plan shall include an air-monitoring component.
 1. The air monitoring component shall specify the following:
 - . Type of air sampling device(s);
 - . Siting of air sampling device(s);
 - . Sampling duration and frequency; and
 - . Analytical method
 - . Frequency and detail of analytical data submittal

223-2.9 RECORDKEEPING AND REPORTING REQUIREMENTS

A. Recordkeeping Requirements: The owner shall retain all of the following records for at least ten (10) years following the completion of the construction project:

0. The results of any air monitoring conducted any time during the project.
0. The documentation for any geologic evaluation conducted on the property for the purposes of obtaining an exemption, except the archive of collected samples which may be discarded at the expiration of the exemption or one (1) year after the exemption is granted whichever is less.
0. The results of any asbestos bulk sampling that meets any of the following conditions:

- a. The asbestos bulk sampling was conducted by the owner/operator to document the applicability of or compliance with this section.
 - b. The asbestos bulk sampling was done at the request of the Air Pollution Control Officer or the El Dorado Building Department or Department of Transportation (DOT).
7. The placement quantities and both removal and placement location of asbestiform containing soils removed by excavation as required in 223-2.6.D.
 8. Records and reports for the project, as defined in 223-2.9.A, shall be provided upon request with disclosures in real estate transactions concerning the project or property.
- B. Reporting Requirements: The owner/operator of any grading or construction operation subject to this section shall submit the following to the EDCAQMD:
1. The results of any air monitoring conducted at the request of the Air Pollution Control Officer.
 2. The laboratory results of any asbestos bulk sampling or testing.
 3. The areas where asbestos was identified, removed, and placed, onsite or offsite shall be described upon completion of the project.
 4. Any public complaints received by the contractor during the project shall be reported as requested by the Air Pollution Control Officer.

223-2.10 TEST METHODS

- E. Ultramafic Rock: The ultramafic rock composition of any material shall be determined using standard analysis techniques including, but not limited to, color index assessment, microscopic examination, petrographic analysis or rock thin sections, or chemical analysis techniques, such as X-ray fluorescence spectrometry or inductively coupled plasma analysis.
- F. Bulk Sampling Methods: ARB Test Method 435, or an alternative asbestos bulk test method approved in writing by the Executive Officer of the California Air Resources Board, shall be used to determine the asbestos content of a bulk sample. For the purposes of determining compliance with this section, references in ARB Test Method 435 to "serpentine aggregate" shall mean "gravel" or other "bulk materials" to be tested for asbestos content.
- G. 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 223-2.10.C.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.

0. 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 223-2.10.C.1. If all three test areas pass, the area shall be deemed to be “sufficiently crusted”.
- C. Analysis of Air Samples: Analysis of all air samples shall follow the analytical method specified by the United States Environmental Protection Agency, Asbestos Hazard Emergency Response Act (AHERA) criteria for asbestos (40 CFR, Part 763 Subpart E, Appendix A, adopted October 30, 1987), with the following exceptions:
0. The analytical sensitivity shall be 0.001 structures per cubic centimeter (0.001 s/cc); and
 0. All asbestos structures with an aspect ratio greater than three to one (3:1) shall be counted irrespective of length.
 2. The results of the analysis of air samples shall be reported as transmission electron microscopy (TEM) asbestos structures per cubic centimeter (s/cc).
- D. Adequately Wetted: Field determination of “adequately wetted” shall be as follows:
0. 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
 0. 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 223-2 TABLE 1
BEST MANAGEMENT PRACTICE FOR ASBESTOS DUST MITIGATION
(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 visible dust.
Clearing forms	C1 Use water spray to clear forms; <u>or</u> 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 Crushing asbestos containing material is expressly prohibited..	
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.
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.

RULE 223-2 TABLE 1
BEST MANAGEMENT PRACTICE FOR ASBESTOS DUST MITIGATION
(Construction And Other Earthmoving Activities)

Source Category	Control Measure	Guidance
Earth-moving activities	<p>H1 Pre-apply water; <u>and</u></p> <p>H2 Re-apply water as necessary to maintain soils in a damp condition and to ensure that visible emissions do not exceed <u>25</u> feet or beyond property line in any direction; <u>and</u></p> <p>H3 Stabilize soils once earth-moving activities are complete.</p>	<ul style="list-style-type: none"> <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. <input type="checkbox"/> Suspend operations when winds generate visible dust emissions despite control measures
Importing/exporting of bulk materials	<p>I1 Stabilize or adequately wet material while loading to reduce fugitive dust emissions; <u>and</u></p> <p>I2 Maintain at least six inches of freeboard on haul vehicles traveling off-site; <u>and</u></p> <p>I3 Stabilize or adequately wet material while transporting to reduce fugitive dust emissions; <u>and</u></p> <p>I4 Stabilize material while unloading to reduce fugitive dust emissions.</p>	<ul style="list-style-type: none"> <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. <input type="checkbox"/> Maintain trucks and cargo compartments, to prevent any spillage of material. <input type="checkbox"/> If excavated material is classified as a hazardous waste/material, off-site transport must comply with pertinent State and Federal rules and regulations.
Landscaping	<p>J1 Stabilize soils, materials and slopes.</p>	<ul style="list-style-type: none"> <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	<p>K1 Apply water to unpaved shoulders prior to clearing; <u>and</u></p> <p>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.</p>	<ul style="list-style-type: none"> <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.
Staging areas	<p>M1 Stabilize staging areas during use; <u>and</u></p> <p>M2 Stabilize staging area soils at project completion.</p>	<ul style="list-style-type: none"> <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/exists.

RULE 223-2 TABLE 1
BEST MANAGEMENT PRACTICE FOR ASBESTOS DUST MITIGATION
(Construction And Other Earthmoving Activities)

Source Category	Control Measure	Guidance
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; <u>and</u> 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 Material must be adequately wet prior to loading; <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.
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.

RULE 223-2 TABLE 1
BEST MANAGEMENT PRACTICE FOR ASBESTOS DUST MITIGATION
(Construction And Other Earthmoving Activities)

Source Category	Control Measure	Guidance
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.
Onsite Disposal of asbestiform containing soils	U1 If possible, place excavated soils into fills constructed elsewhere on the project	<input type="checkbox"/> Fills with NOA content equal to or greater than 1.0%, or when visually evident fibrous materials likely to be asbestos are present, in residential landscaping areas must be covered by at least 24 inches of clean fill <input type="checkbox"/> Document location and quantities of fills
Offsite disposal of asbestiform containing soils	V1 Management and disposition of excavated soils transported offsite must be in accordance with federal, state and local regulations.	<input type="checkbox"/> For excavated soils transported offsite, information per Rule 223-2.6.D.3. <u>must</u> be documented by owner/operator and retained for a period of 3 years.
Post Construction Stabilization of Disturbed Areas	W1 Must be completed no later than 30 days following completion of the project.	<input type="checkbox"/> Establishment of vegetative cover; <u>or</u> <input type="checkbox"/> Placement of at least 3 inches of clean fill, <input type="checkbox"/> Placement of a total of at least 12 inches, or maximum depth of irrigation improvements, whichever is higher, of clean fill in residential landscaping areas with NOA greater than 0.25%; or <input type="checkbox"/> Paving, Foundations, Retaining Walls; or <input type="checkbox"/> Other measures as approved by APCO.
Signage	X1 Post Warning Signs at the main entrance to the project for the duration of soil disturbance activities	<input type="checkbox"/> Signs to be in compliance with current OSHA requirements <input type="checkbox"/> Proposition 65 (H&S Code 25249.5-25249.13) may apply

RULE 223-2 TABLE 2
BEST MANAGEMENT PRACTICE FOR ASBESTOS DUST MITIGATION
(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 Material must be adequately wet prior to loading; <u>and</u> D3 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> D4 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. D5 If excavated material is classified as a hazardous waste/material, off-site transport must comply with pertinent State and Federal rules and regulations.
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 223-2 TABLE 3
BEST MANAGEMENT PRACTICE FOR ASBESTOS DUST MITIGATION
(Removal and Prevention of Trackout)

Source Category	Control Actions
Removal of Trackout Material	A1 Manually wet sweeping and picking-up; <u>or</u> A2 Operating HEPA filter equipped vacuum device; <u>or</u> A3 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> A4 <u>The use of blower devices, or dry rotary brushes or dry brooms is expressly prohibited.</u>
Frequency of Trackout Material Removal	B1 Visible trackout must be immediately removed from paved public roads; <u>and</u> B4 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 pad; <u>or</u> C3 Paving of interior roads.

RULE 223-2 TABLE 4
BEST MANAGEMENT PRACTICE FOR ASBESTOS DUST MITIGATION
(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 25 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 Practices for all construction activities (Table 223-2, Table I)	

**RULE 223-2 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 25 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 25 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.</p> <p>B2 For any earth-moving which is more than 25 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 25 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 223-2 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 223-2.10.C</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 to 15 miles per hour;</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 223-2 TABLE 6
CONTINGENCY DUST CONTROL MEASURES FOR LARGE OPERATIONS

Source Category	Control Actions
Earth-moving	<p>A1 Cease all active operations except for dust mitigation activities; or</p> <p>A2 Apply water to soil not more than 15 minutes prior to moving such soil; <u>and</u></p> <p>A3 Apply water during soil moving or disturbance operations.</p>
Disturbed surface areas	<p>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></p> <p>B2 Apply chemical stabilizers prior to wind event; <u>or</u></p> <p>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></p> <p>B4 Take the actions specified in Table 5, control action F3; <u>or</u></p> <p>B5 Utilize any combination of control actions B1, B2 and B3B such that, in total, these actions apply to all disturbed surface areas.</p>
Unpaved roads	<p>C1 Apply chemical stabilizers prior to wind event; <u>or</u></p> <p>C2 Apply water twice per hour during active operation; <u>or</u></p> <p>C3 Stop all vehicular traffic, except for dust mitigation equipment.</p>
Open storage piles	<p>D1 Apply water twice per hour; <u>or</u></p> <p>D2 Install temporary coverings.</p>
Bulk Material Transport	<p>E1 Cover all haul vehicles; <u>or</u></p> <p>E2 Freeboard must be 6 inches or greater (VCS 23114)</p>
All Categories	<p>F1 Any other control measures approved by the Air Pollution Control Officer as equivalent to the methods specified in Table 6 may be used.</p>