

FOR DISCUSSION PURPOSES ONLY

Adopted [Date]

PROPOSED RULE 403.2 - FUGITIVE DUST FROM LARGE ROADWAY PROJECTS

(a) Purpose

The purpose of this Rule is to mitigate air quality impacts to near road communities from large roadway project fugitive dust operations, activities, equipment and material piles. These include but are not limited to fugitive dust from aggregate ~~crushing and grinding production~~, construction/demolition activities and equipment, and material piles, at large roadway projects.

(b) Applicability

The provisions of this Rule shall apply to large roadway projects with the potential of fugitive dust impacts on near road communities, as defined in this Rule. The requirements of this Rule do not replace or supersede the requirements of any other applicable Rule.

(c) Definitions

~~(1) AGGREGATE OPERATION means an operation that produces sand, gravel, crushed stone, and/or quarried rocks.~~

~~(2)~~(1) AREAS OF PUBLIC EXPOSURE means any area within the property line of any office, commercial or industrial building, park, or open space/recreational facility, including associated structures and amenities specifically designated by a governmental agency or private entity for recreational purposes. Examples include amusement parks, hiking trails, and campgrounds.

~~(3)~~(2) BULK MATERIAL is sand, gravel, soil, and aggregate material (such as recycled concrete/asphalt) less than two inches in length or diameter, and other organic or inorganic particulate matter.

~~(4)~~(3) CONSTRUCTION/DEMOLITION ACTIVITIES means any large roadway project mechanical activities conducted in preparation of, or related to, the building, alteration, rehabilitation, demolition or improvement of a large roadway or associated structure such as a bridge, including, but not limited to the following activities: grading, excavation,

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aggregate loading/unloading, aggregate crushing/grinding, cutting, planing, shaping, screening or ground breaking.

~~(5)~~(4) **CONSTRUCTION VEHICLE** means graders, bulldozers, excavators, cranes, backhoes, tractors, haul trucks and other similar vehicles used at a large roadway project.

~~(6)~~(5) **CONTRACTOR** means any person who has a contractual arrangement to establish or conduct activities at a large roadway project for another person.

~~(7)~~(6) ~~CRUSHING AND GRINDING AGGREGATE PRODUCTION~~ means any activity solely intended for the production of aggregate that mechanically reduces the size of materials in an aggregate operation. Activities such as cold planing, cold in-place recycling (CIR), full-depth reclamation or recycling, pavement smoothness grinding, and concrete slab replacement are not considered aggregate production.

~~(8)~~(7) **DISTURBED SURFACE AREA** means a portion of the earth's surface which has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed natural condition, thereby increasing the potential for emission of fugitive dust. This definition excludes those areas which have:

- (A) Been restored to a natural state, such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby natural conditions;
- (B) Been paved or otherwise covered by a permanent structure; or
- (C) Sustained a vegetative ground cover of at least 70 percent of the native cover for a particular area for at least 30 days.

~~(9)~~(8) **DUST CONTROL SUPERVISOR** means a person that:

- (A) Is employed by or contracted with the property owner, developer or other person responsible for the large roadway project;
- (B) Is at the large roadway project or available at the large roadway project within 30 minutes during regular working hours or when operations/activities are being conducted at the large roadway project;
- (C) Has completed the South Coast AQMD Fugitive Dust Control Class and holds a valid Certificate of Completion for the class, and is responsible for expeditiously:
 - (i) Responding to air quality issue inquiries regarding the large

Commented [CSK1]: This clarifies that cold planing, CIR and other efforts are covered under construction/demolition.

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roadway project;

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- (ii) Employing sufficient dust mitigation measures, as necessary and when applicable, to ensure compliance with the control measure requirements of this Rule; and
- (iii) Maintaining records pursuant to the record keeping guidelines in this Rule.

~~(10)~~(9) **DUST SUPPRESSANT** means water, hygroscopic materials, or non-toxic chemical stabilizers used as a treatment material to reduce fugitive dust emissions.

~~(11)~~(10) **EARTH MOVING ACTIVITIES** means the use of equipment for any activity where soil is being moved or uncovered, and includes, but is not limited to the following: grading, earth cutting and filling operations, loading or unloading of dirt or bulk materials, and adding to or removing from open storage and material piles.

~~(12)~~(11) **FUGITIVE DUST** means any solid particulate matter, that becomes airborne, other than that emitted from an exhaust stack, or engine tailpipe, directly or indirectly as a result of the activities of any person.

~~(13)~~ **LARGE ROADWAY** means any roadway, with an annual daily average number of vehicle trips in excess of 100,000.

(12) **LARGE ROADWAY PROJECT** means a project that disturbs lanes carrying more than 100,000 AADT ~~the large roadway and/or adjacent location~~ at which sources capable of generating fugitive dust from crushing and grinding/earth moving/ construction/demolition activities, disturbed surface areas, heavy- and light-duty vehicular movement on paved or unpaved roads, or material piles are located. Routine maintenance activities are not considered large roadway projects.

(13) **ROUTINE MAINTENANCE ACTIVITIES:** Routine maintenance activities include efforts such as repairing potholes, incidental concrete slab replacements, chip seal repair, and pavement digouts.

(14) **EMERGENCY SITUATIONS:** 'Emergency,' as used in California Public Contract Code (PCC), Section 1102, code, is a sudden, unexpected occurrence that poses a clear and imminent danger, requiring immediate action to prevent or mitigate the loss or impairment of life, health, property, or essential public services.

(15) **MATERIAL PILE** means any accumulation of bulk material, construction/demolition debris, excavated material or typical large roadway project materials located at large roadway projects.

(16) **PERSON** means any individual, firm, association, organization,

Commented [FSM2]: Example: This rule would not apply to a two-lane project on a 100,000 AADT highway which disturbs only one direction of travel. Often there are projects that only fix one or two lanes of a large multilane roadway.

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partnership, business trust, corporation, company, contractor, supplier, installer, user or owner, or any state or local governmental agency or public district or any other officer or employee thereof, pursuant to Rule 102, and any Dust Control Supervisor as defined in this Rule.

- (17) PM10 means particulate matter with an aerodynamic diameter smaller than or equal to 10 microns as measured by the applicable State and Federal reference test methods.

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- (18) SENSITIVE RECEPTOR means a residence, school (kindergarten through grade 12), licensed daycare center, hospital/clinic, or convalescent home.
- ~~(19)~~ STABILIZE means for the purposes of this Rule sufficient use (of both amount and frequency) of a dust suppressant to ensure compliance with the fugitive dust requirements of this Rule.
- ~~(19)~~~~(20)~~ TEMPORARY COVER means applying a geosynthetic and/or plastic sheeting complying with the “temporary cover” specifications and stockpile management best management practice (BMP) of a state, county or city department or agency located within the jurisdiction of the SCAQMD.
- ~~(20)~~~~(21)~~ TRACK OUT means any bulk material that adheres to and agglomerates on the exterior surface of motor vehicles, haul trucks, and equipment (including tires) that have been released onto a paved road and can be removed by a vacuum sweeper or a boom sweeper under normal operating conditions.
- ~~(21)~~~~(22)~~ TYPICAL LARGE ROADWAY PROJECT MATERIALS means concrete, asphaltic concrete, recycled asphalt, asphalt, or any other large roadway project material of equivalent performance as determined by the Executive Officer.

(d) Requirements

- ~~(1)~~ ~~On or after six (6) months from the date of Rule adoption, no person shall conduct aggregate operations, crushing and grinding operations or maintain a material pile at a large roadway project that is located within a distance of 100 feet of any property line of an area of public exposure or sensitive receptor.~~
- ~~(2)~~~~(1)~~ On or after six (6) months from the date of Rule adoption, no person shall conduct the following activities at a large roadway project, that is located within 500 feet of an area of public exposure or 1,000 feet of a sensitive receptor, unless in compliance with the provisions of paragraph (d)~~(23)~~ Additional Requirements, and subdivision (e) Record Keeping:
- (A) ~~Crushing and grinding~~ aggregate production operations ~~(including concrete and asphalt recycling);~~
 - (B) Construction/demolition activities;
 - (C) Earth moving or any other mechanical activity that results in earth/soil disturbance;

Commented [FSM3]: Regardless of the distance to any property line (0 to 1,000 feet), additional control measures will be required.

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- (D) Movement of heavy construction equipment over unpaved surfaces;
or

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- (E) Material pile establishment that exceeds a height of 3 feet and a total surface area of 150 square feet;

Distances shall be measured from the nearest edge or perimeter of the operation/material pile location within the large roadway project to the closest point of the property line of any area of public exposure or sensitive receptor.

(3)(2) Additional Requirements

- (A) Dust Control Supervisor
 - (i) Each large roadway project must have a dust control supervisor designated.
 - (ii) The dust control supervisor shall be responsible for ensuring compliance with all applicable provisions of this paragraph.

(B) Control Measures

Use the following control measures as necessary/applicable to prevent fugitive dust/visible emissions ~~from extending farther than 100 feet as measured from the nearest edge or perimeter of the operation/material pile or equipment location within the large roadway project to the closest point of the property line of any area of public exposure or sensitive receptor; whichever is less;~~

<p>Crushing and Grinding; or Aggregate Production Operations</p>	<p>Stabilize surfaces prior to operation of equipment (including construction vehicles such as for example bulldozers, cranes or backhoes) and prior to any crushing/grinding; and</p> <p>Stabilize aggregate material piles after crushing and grinding production by applying a temporary cover or applying dust suppressant water to prevent dust plumes.</p>
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Commented [FSM4]: The control measures will apply to all projects within 500 feet of an area of public exposure or 1,000 feet of a sensitive receptor

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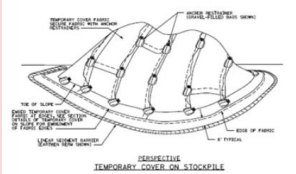
<p>Earth Moving Activities; Construction/Demolition; or; Disturbed Surface Areas</p>	<p>Apply dust suppressant as necessary to maintain a stabilized surface and to prevent visible emissions.</p>
<p>Dust from Construction Vehicles (All controls)</p>	<p>Apply dust suppressant as necessary to prevent visible emissions during vehicle operation; <u>Limit vehicle speed to 15 miles per hour on roadways on unpaved roadways in active construction areas;</u> Cover frequently traveled unpaved roads and unpaved parking areas with low silt content material (i.e., asphalt, concrete, recycled road base, or gravel to a minimum depth of four inches); Treat unpaved roads with a dust suppressant, mulch, or other cover to maintain a stabilized surface; and Remove dust from paved roadways and construction vehicles as required to prevent track out or entrained dust by washing, vacuum sweeping, broom sweeping or any other mechanical means that does not generate fugitive dust</p>

Commented [FSM5]: Suggested revision to avoid the misunderstanding of the expected speed of vehicles driving on the public highway within the project limits

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<p>Material Piles (Any combination of the required controls to ensure control)</p>	<p><u>Maximum Height of 20 feet</u> Apply <u>a temporary cover or apply</u> dust suppressant as necessary, but no less than twice per hour to maintain a stabilized surface and prevent visible emissions; <u>Install coverings; and</u> <u>Install an enclosure with a minimum of three sides (the open side of</u></p>
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Commented [FSM6]: Temporary covers are more effective in controlling dust and easier to maintain when placed over a non-circular based pile.



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Commented [FSM7]: Stockpiling material is critical to our GHG reduction efforts. Without the ability to stockpile, materials must be hauled away and then returned for later use.
A 100-foot prohibition from property lines will also force the material piles to be located much closer to the motorists and construction workers; this will be contrary to Caltrans Safety Goals.

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	<p>which will face farthest from potentially impacted areas) and walls with a maximum porosity of 50 percent and a minimum height equal to the highest point of the material pile. Adjacent material piles within 25 feet of each other as measured from the closest edge of each pile shall be considered to be a single pile.</p>
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(C) Signage

Prior to project commencement, large roadway project contact information signage shall be posted/installed within 50 feet of each large roadway project public entrance including any frequently used work entrance, and at a minimum every 100 yards along the large roadway project property line/boundary. Signage shall be 1 inch A/C laminated plywood board or similar strength and durability material with dimensions of 48 inches by 96 inches. Signage background must contrast with lettering, typically black text with white background. The lower edge of the sign board must be a minimum of 6 feet and a maximum of 7 feet above grade. This signage must *not* be visible to any motorists traveling through the large roadway project. At a minimum, each sign shall include the following information, with text height as shown on the right side of the sign template below, and an accessible 24 hours per day local or a toll-free phone number for contacting the large roadway project responsible person(s) or dust control supervisor regarding fugitive dust issues:

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Commented [FSM8]: Added sentence only to address FHWA's comment above. Caltrans has not looked at the sign height or dimensions or reviewed this portion of the new rule from a safety perspective. Our pilot project specification requires a public notification letter be posted in public areas near the jobsite and sent to residences and businesses within 1000 feet of an area of public exposure to the dust source activity.

Commented [FSM9]: Comment from FHWA: , the signs is very large. In addition, they include many lines of information, and do not conform to any existing sign format. As such, they would be difficult to read at highway speeds and would, then likely cause a distraction. **As such, FHWA is not likely to support their use or approval of this specification.**

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Sign Content	Height
Permit # (if applicable)	4"
Site Name	4"
Project Name / Tract #####	4"
IF YOU SEE DUST COMING FROM	4"
THIS PROJECT CALL:	4"
Name, Phone Number 1- (###) ###-####	6"
If you do not receive a response, please call	3"
the South Coast AQMD at 1-800-CUT-SMOG	3"

(D) Notification**(i) Areas of Public Exposure and Sensitive Receptors**

At least 120 hours prior to establishing a large roadway project pursuant to the prohibitions in paragraph (d)(2), the dust control supervisor or other responsible person shall notify the owner(s)/occupant(s) of occupied buildings or open/space recreational facility management as applicable, in writing, and shall at a minimum include the following information:

- (A) Large roadway project dust control supervisor contact information including contact name, company/agency name, address, telephone number, and e-mail address; and
- (B) Estimated duration of the project including commencement and completion dates, and
- (C) Location of the large roadway project including address and/or coordinates and a map depicting the location of the site.

(ii) South Coast AQMD

At least 120 hours prior to establishing a large roadway project pursuant to the prohibitions in paragraph (d)(2), the dust control supervisor or other responsible person shall notify the Executive

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Officer in writing, and shall at a minimum include the following information:

- (A) Large roadway project contact information including name, company/agency name, address, telephone number, and e-mail address of all responsible persons including the dust control supervisor;
- (B) Location of the large roadway project, including address and/or coordinates and a map depicting the location of the site;
- (C) Estimated duration of the large roadway project including commencement and completion dates; and
- (D) A list of permitted ~~rock crushing and/or grinding aggregate~~ production equipment, and related large roadway project unpermitted, powered equipment with the potential to generate dust, including but not limited to equipment subject to California Air Resources Board (CARB) Portable Equipment Registration Program (PERP) equipment.

(e) Record Keeping

The dust control supervisor shall be responsible for maintaining daily records of the required control measures pursuant to subparagraph (d)(3)(A) at a large roadway project documenting:

- (1) Each type of operation/activity conducted and the associated permitted and unpermitted powered equipment with potential to generate dust;
- (2) The specific dust control measures taken for each activity or equipment; and
- (3) The frequency of dust control measures.

Records shall be retained for a minimum of three years and shall be made available to the Executive Officer upon request.

(f) Exemption

The provisions of this Rule shall not apply for the following activities:

- ~~to~~ L large roadway projects or associated operations/activities/equipment undertaken during emergency situations, or in conjunction with any officially declared disaster or state of emergency.

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- Routine maintenance activities.
- Large roadway projects advertised for construction on or before the rule adoption date.