CALCIMA
California Construction and Industrial Materials Association

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Re: CalCIMA proposed language and questions pursuant to 'Proposed Rule 403.2 - Fugitive Dust from Large Roadway Projects' draft rule language

CalCIMA appreciates the opportunity to provide feedback to PR 403.2. Specific to PR 403.2 rule language, this email includes rule language recommendations we propose for inclusion within PR 403.2, in addition to a few questions for South Coast AQMD to respond to.

CalCIMA is the statewide voice of the construction and industrial materials industry. With over 500 local plants and facilities throughout the state, producing aggregate, concrete, cement, asphalt, industrial minerals, and precast construction products, our members produce the materials that build our state's infrastructure, including public roads, rail, and water projects; homes, schools and hospitals; assist in growing crops and feeding livestock; and play a key role in manufacturing consumer products as well, including roofing, paint, low-energy light bulbs, and battery technology for electric cars and windmills. The continued availability of our members' materials is vital to California's economy, as well as ensuring California meets its renewable energy, affordable housing, and infrastructure goals.

1. 'Material Piles' definition – CalCIMA supports AGC of California's 3/15 comments regarding this item that states "Construction zones often have limited space available and are contained, therefore, reducing the size of the material piles may reduce the space available for construction crew members to maneuver. For example, the construction project on I-10 for lane extensions has extremely limited space to put material piles. AGC of California asserts that reducing the size of material piles may impose safety concerns. SCAQMD PR 403.2 aims to reduce emissions, however, this regulation may require additional laydown areas for stockpile material to comply with current language. This would require more machinery on-site and time to move material piles. Additionally, material piles often act as sound barriers to reduce noise pollution; reducing the size of material piles would conflict with existing regulation and would increase noise pollution. AGC of California believes the definition of material piles needs to be modified for it to be more feasible."

(c) Definitions

For the purposes of this rule:

…

(c)(15) MATERIAL PILE means any accumulation of bulk materials, construction/demolition debris, excavated material, or typical roadway material which is not fully enclosed and attains a height of three feet or more and a total surface area of 150 or more square feet. Material piles located within 25 feet of each other as measured from the closest edge of each pile shall be considered a single material pile (p. 2-3).

2. Material piles control measures – We are proposing for language requiring material piles to be maintained "below a maximum height of 20 feet" to be removed to allow for alternative controls to be implemented for the following reasons:

    a. In order to keep piles under 20 feet, multiple piles may need to be created that can result in more material handling equating to additional fugitive dust emissions produced;

    b. In order to keep piles under 20 feet, multiple piles may need to be created that may result in additional surface area to be maintained that create additional risk for fugitive dust emissions;

    c. Additionally, implementation of multiple piles to keep piles under 20 feet will potentially force projects to be designed to take more space as a need to have supplemental areas around the piles to enable access to place and remove materials safely. Therefore, making pile configuration a mandatory component of roadway design projects could lead to projects having expanded footprints increasing traffic obstruction and increase adjacent community exposures opposed to limiting exposures which is an issue that should be analyzed; and

    c. It may be practically infeasible to achieve this at sites that have limited capacity in relation to size, shape, and grade to accommodate multiple piles under 20 feet to meet this requirement while also accommodating right-of-way traffic, required shoulders, and area for equipment passage in order to perform roadway construction related operations.

    We are proposing that language requiring material piles to have a dust suppressant applied "no less than twice per hour" be removed to allow for dust suppressants to be implemented as necessary for the following reasons:

    d. Operational conditions may require suppressant be applied less frequently if rain or precipitation occurs, or if material is sourced from an area being dewatered;

    e. Over application of dust suppressants in circumstances that involve rain, precipitation, or material sourced from areas being dewatered can create safety and/or stormwater management issues;

f. Over application of dust suppressants can adversely impact efforts to conserve water;

g. Over application of dust suppressants can increases the direct criteria and climate emissions of the asphalt plant as it takes more time to heat and dry the materials to the proper point to make asphalt;

h. Impacts that chemical (sodium chloride/magnesium chloride) or petroleum-based dust suppressants might have on the mechanical and chemical properties of aggregates being used in the production of hot mix asphalt. For example, when producing hot mix asphalt on the project site, the contractor may have several aggregate stockpiles that need to be treated with lime as an anti-strip preventative measure. This process only works when the dry lime or lime slurry has the ability to bond to the aggregates surface. The bonding between aggregates and the bitumen depends on the aggregate drying and their surface polarity. For example, an alternative to correct granite and gneiss acidity is to add hydrated lime originating from calcite. This process reverses the surface polarity of acidic aggregates and improves its ability to adhere to the bitumen, since it is slightly acidic. It's important to note, the need for the application of lime as an anti-strip agent is not limited to granite and gneiss aggregates. If the application of dust suppression material serves to obstruct the bonding capacity between the aggregate and lime, this would reduce or eliminate the antistripping properties of the lime treatment. This in turn, would result in hot mix asphalt that is susceptible to moisture damage (raveling and stripping) after being placed in the roadway. Further, applying a dust suppressant to aggerates that are required to marinate in lime slurry prior to use could disrupt the boding process or moreover remove the slurry from the surface of the aggregates. There is also a possibility that the dust suppressant might have a negative impact on the asphalt binders' ability to bond to the surface of untreated aggregates which would also facilitate raveling and stripping of the hot mix asphalt pavement; and

i. Concerning water content of the dust suppressant, adding dust suppressant twice per hour will likely drive up the moisture content of the hot mix asphalt aggregates thus requiring additional drier capacity at the hot mix asphalt plant. This would drive up the Global Warming Potential (GWP) value in the Environmental Product Declaration (EPD) that the Federal Highway Administration is going to use as part of the acceptance criteria for hot mix asphalt on federal projects.

We need clarity regarding language that states "Apply dust suppressant as necessary, but no less than twice per hour to maintain a stabilized surface and prevent visible emission from extending farther than 100 feet as measured from the nearest edge or perimeter of the operation/material pile or equipment location," how would 100 feet be measured?

(e) Additional Requirements
Any person who conducts or authorizes the conducting of activities for a large roadway project to paragraph (d)(2) shall comply with the requirements specified in paragraphs (e)(1) through (e)(4):

…

(e)(2) Control Measures
Use the following applicable control measures to prevent fugitive dust/visible emissions:

Material Piles (One or more controls measures, as needed, to ensure fugitive dust control)	*~~Maintain below a maximum height of 20 feet; and~~* *Apply dust suppressant as necessary~~, but no less than twice per hour~~ to maintain a stabilized surface and prevent visible emissions from extending farther than 100 feet as measured from the nearest edge or perimeter of the operation/material pile or equipment location; or* *Install coverings; or* *Install an enclosure with a minimum of three sides (the open side of 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.*

3. 'Aggregate Crushing and Grinding' definition – Regarding the 'Aggregate Crushing and Grinding' definition that states the meaning "any activity that mechanically reduces the size of materials of loose or stockpiled to produce sand, gravel, crushed stone, quarried rock, or other aggregate material (such as recycled concrete/asphalt)," does 'grinding' refer to portable crushers or does it refer to asphalt pavement grinders that are mobile equipment?

4. Dust from construction vehicles control measures – We are proposing modifications to the following control: "apply dust suppressant as necessary to prevent visible emissions during vehicle operation," to limit visible emissions exceeding 20 percent opacity during operations since it is highly difficult and, in more cases, than less it is unachievable to operate vehicles at zero fugitive dust emission levels. We are proposing language to post signage that limits vehicle speed to 15 miles per hour on roadways because in many cases roadway project operation entrances come right off of a freeway and it may be unsafe to immediately achieve a 15 mile per hour limit. We are proposing language to allow for one of the last three of five controls listed to be implemented to eliminate redundancy related to outcomes of these controls.

Dust from Construction Vehicles (Implement all controls)	*Apply dust suppressant as necessary to ~~prevent~~ <u>limit</u> visible emissions <u>exceeding 20 percent opacity</u> during vehicle operation; and* *<u>Post signage that ~~L~~limit vehicle speed to 15 miles per hour on roadways; ~~and~~ or</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); ~~and~~ <u>or</u>* *Treat unpaved roads with a dust suppressant, mulch, or other cover to maintain a stabilized surface; ~~and~~ <u>or</u>*

	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.

5. Signage – Regarding signage requirements, we are proposing language to make sections (A) and (B) more complementary as we believe the rule writer likely intended. We are also proposing language to remove sections (C) through (H) and replace with more concise language that achieves the same objectives.

(3) Signage

Prior to commencement of activities for a large roadway project pursuant to paragraph (d)(2), install and maintain project signage that, at a minimum, meets the following:

(A) Signage must be located within 50 feet of ~~each~~ a project site entrance, and a maximum of four signs and minimum of one sign are required per large roadway project.

~~(B) A maximum of four signs are required per large roadway project.~~

(B) install and maintain project signage with project contact signage that meets the minimum standards of the Rule 403 Implementation Handbook.

~~(C) One sign is sufficient for multiple site entrances located within 300 yards of each other.~~

~~(D) Signage shall be 1 inch A/C laminated plywood board or similar strength and durability material with dimensions of 48 inches by 96 inches.~~

~~(E) Sign background must contrast with lettering, typically black text with white background.~~

~~(F) The lower edge of the sign board must be a minimum of 6 feet and a maximum of 7 feet above grade.~~

~~(G) The telephone listed for the contact must be a local or a toll-free number and shall be accessible 24 hours per day.~~

~~(H) 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 toll-free phone number for contacting the large roadway project responsible person(s) or dust control supervisor regarding fugitive dust issues:"~~

6. Notification – We are proposing to remove section (B)(iv) to harmonize this rule language with other existing rule requirements as permitted aggregate crushing and grinding equipment and equipment subject to the California Air Resources Board (CARB) Portable Equipment Registration Program (PERP) that already has their own notification requirements that require notification to local air districts.

(4) Notification

The dust control supervisor or other responsible person for the large roadway project shall comply with the following notification requirement:

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

(i) Large roadway project dust control supervisor contact information including contact name, company/agency name, address, telephone number, and e-mail address; and

(ii) Estimated duration of the project including commencement and completion dates, and

(iii) Location of the large roadway project, including address and/or coordinates, and a map depicting the location of the site.

(B) South Coast AQMD

At least 120 hours prior to commencement of activities for a large roadway project pursuant to paragraph (d)(2), the dust control supervisor or other responsible person shall notify the Executive Officer in writing, and shall at a minimum include the following information:

(i) Large roadway project contact information including name, company/agency name, address, telephone number, and email address of all responsible persons including the dust control supervisor;

(ii) Location of the large roadway project, including address and/or coordinates, and a map depicting the location of the site;

(iii) Estimated duration of the large roadway project including commencement and completion dates; and

(iv) ~~A list of permitted aggregate crushing and grinding equipment, and equipment subject to the California Air Resources Board (CARB) Portable Equipment Registration Program (PERP).~~

Again, thank you for your consideration and please feel free to contact me with any questions, concerns, or to further discuss at (951) 941-7981 or at sseivright@calcima.org.

Sincerely,

Suzanne Seivright-Sutherland
Director of Regional Governmental Affairs and Grassroots Operations