

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Preliminary Draft Staff Report Proposed Rule 403.2 – Fugitive Dust From Large Roadway Projects

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CHAPTER 1: BACKGROUND

INTRODUCTION

REGULATORY BACKGROUND

ROADWAY PROJECT ACTIVITIES

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INTRODUCTION

Fugitive dust from large roadway projects can become airborne during construction and demolition and can result in additional particulate matter (PM) exposure in near roadway communities. The South Coast Air Quality Management District (South Coast AQMD) has existing rules relating to the reduction of fugitive dust including Rule 403 – Fugitive Dust, Rule 403.1 – Supplemental Fugitive Dust Control Requirements for Coachella Valley Sources, Rule 1157 – PM10 Emission Reductions from Aggregate and Related Operations, Rule 1466 – Control of Particulate Emissions From Soils with Toxic Air Contaminants, and Rule 402 – Nuisance.

However, these existing Rules do not specifically address dust control from large roadway projects that are conducted in close proximity to a sensitive receptor or area of public concern, which are already disproportionately impacted by diesel particulate matter and other air toxics, in addition to the associated increases to inhalation cancer risk. Rule 403 applies broadly to sources with the potential to generate fugitive dust. Rule 403.1 was established as a supplemental rule for Coachella Valley fugitive dust sources. Rule 1157 controls PM10 emissions from aggregate and related operations and focuses on aggregate facilities. Rule 1466 minimizes the amount of off-site fugitive dust emissions containing toxic air contaminants by reducing particulate emissions in the ambient air as a result of earth-moving activities. Rule 402 is limited in circumstance and can be applied only after the public nuisance has occurred and has been verified by a “considerable number of persons” and the complaint response staff in the field. In addition, these existing South Coast AQMD rules do not have specific preemptive measures to prevent community exposure to fugitive dust.

Proposed Rule (PR) 403.2 applies to any person who conducts activities, and/or authorizes the conducting of activities for a large roadway project, and will supplement the existing regulatory measures of Rule 403 for large roadway projects. Specifically, the proposed rule only applies to large roadway projects that are located within 500 feet from areas of public exposure and 1,000 feet of a sensitive receptor. PR 403.2 will further reduce impacts of fugitive dust to receptors by prohibiting aggregate crushing and grinding operations and maintenance of material piles within 100 feet of any property line of an area of public exposure or a sensitive receptor. The proposed rule also establishes requirements for advance notification to areas of public exposure and sensitive receptors in close proximity to the large roadway project and South Coast AQMD prior to commencement of work, additional or increased fugitive dust control, project perimeter signage, recordkeeping of dust controls measures implemented and other rule requirements, and the appointment of a dust control supervisor responsible for ensuring rule compliance.

REGULATORY BACKGROUND

South Coast AQMD’s regulatory structure relating to fugitive dust includes Rule 403 – Fugitive Dust; Rule 403.1 – Supplemental Fugitive Dust Control Requirements for Coachella Valley

Sources; Rule 1157 – PM 10 Emission Reductions from Aggregate and Related Operations; Rule 1466 – Control of Particulate Emissions From Soils With Toxic Air Contaminants, and Rule 402 – Nuisance.

Rule 403

Rule 403 was first adopted on May 7, 1976 and has undergone numerous amendments to date. The purpose of Rule 403 is to reduce the amount of particulate matter (PM) entrained in the ambient air due to anthropogenic fugitive dust sources by requiring actions to prevent, reduce or mitigate fugitive dust emissions. Rule 403 limits PM concentrations, when monitored, and contains control measures to limit fugitive dust. Rule 403 provides a list of control guidance and options for the operator to select. Additional provisions are included for large operation (>50 acres) and for operations where fugitive dust concentrations exceed performance standards with more specific dust control measures and requirements. Rule 403 presents dust control measures in four tables. Table 1 provides best available control measures (BACMs). BACMs are the most stringent emission limitations or control techniques which are commercially available. Table 2 details dust control measures for large operations. Tables 3 and 4 display Contingency Control Measures for Large Operations and Conservation Management Practices for Confined Animal Facilities, respectively.

Currently, existing Rules 403 regulates any activity that generate fugitive dust and allows a choice of compliance options for general fugitive dust source categories. It is broadly applicable to sites with the potential to generate fugitive dust. Although the existing Rule 403 has provisions for notification to South Coast AQMD, designation of a dust control supervisor, contract signage and recordkeeping on dust control action implemented, they can only be applied for a Large Operation. Rule 403 does not require advance notification to the public or nearby communities.

Rule 403.1

Rule 403.1 was first adopted on January 15, 1993, and subsequently amended on June 16, 2000, and April 2, 2004. It establishes special requirements for Coachella Valley fugitive dust sources. The requirements are applicable to active operations, open storage piles or disturbed surface areas, construction (earth-moving) activities that are not subject to local jurisdiction dust control ordinance requirements. Requirements include wind speed based operational restrictions; stabilization; control actions specified in Table 2 of Rule 403; restrictions on earth-moving activities; fugitive dust control plans; signage; wind monitoring; and recordkeeping.

Rule 1157

Rule 1157 was first adopted on January 7, 2005, to reduce PM10 emissions from aggregate and related operations as part of 2003 AQMP Control Measure BCM-08 – Further Emission Reductions from Aggregate and Cement Manufacturing Operations. The rule is most applicable to aggregate material facilities and was last amended on September 8, 2006, to simplify and streamline the implementation of the high wind exemption provision.

Rule 1466

Rule 1466 was adopted in July 2017 and filled a regulatory gap in controlling fugitive dust from soil containing non-VOC toxic air contaminants, requiring continuous ambient dust monitoring and implementation of enhanced dust control measures. The rule was amended in December 2017 to expand the list of applicable toxic air contaminants to include pesticides, herbicides, other metals, persistent bio-accumulative toxics, and semi-volatile organic compounds. The amendment also expanded the rule's applicability to other government designated sites and clarified existing provisions. A subsequent amendment clarified existing requirements for enforceability and added enhanced monitoring requirements.

Rule 402

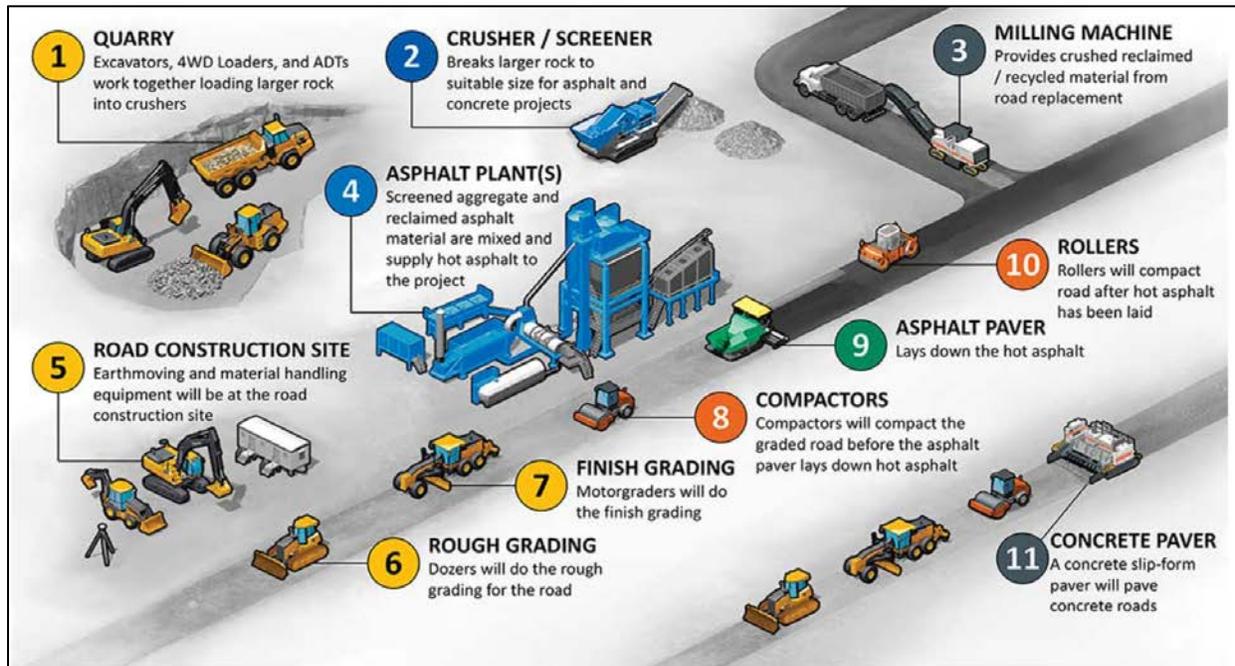
Rule 402 was adopted on May 7, 1976, to protect the public from any air contaminants discharged that caused public injury, detriment, annoyance, or nuisance. The rule also restricts emissions that endanger the comfort, repose, health or safety of the public, or which cause, or have a natural tendency to cause, injury or damage to business or property to a considerable number of people and simultaneously verified by South Coast AQMD field staff.

ROADWAY PROJECT ACTIVITIES

Roadway projects include many types of activities and many different types of equipment. PR 403.2 classifies roadway project activities and equipment into categories based on their potential to generate ambient particulate matter. These are the same activity categories found in the current version of Rule 403. Broadly these categories are based on aggregate crushing and grinding, construction and demolition, and earth moving activities. In addition, PR 403.2 would apply to potential dust entrainment caused by the movement of heavy- and light-duty construction vehicles at the large roadway project site and maintenance of material piles.

Figure 1-1 shows an overview of the typical activities that occur and the associated equipment types at roadway projects. Note that "Step 1 Quarry" and "Step 4 Asphalt Plants" would most likely not be a part of the large roadway project for the purposes of PR 403.2 (unless it is immediately adjacent to the roadway project and associated solely with providing materials to the specific large roadway project).

Figure 1-1¹
Common Roadway Project Activities



Aggregate Crushing and Grinding

Aggregate crushing and grinding is a physical, mechanical activity that reduces the size of a material. Many varieties and models of equipment exist for both this type of activity, but the process is similar. Crushing is typically achieved by forcefully driving pieces of material against each other and parts of the crusher, resulting in the material being broken down into smaller pieces. Grinding typically reduces the size of a material by abrasion of the surface of a material with a grinder to remove layers of a material. Figures 1-2 shows a typical portable crusher² which is used to crush concrete/asphalt/stone demolition materials into smaller sized recycled aggregate for re-use. Figure 1-3 shows a similar inactive portable crusher located at a roadway project near a receptor fence line.

Figure 1-2
Portable Recycling Crusher



1 <https://www.constructionequipment.com/deeres-surprising-wirtgen-buy-watch-what-we-do>

2 <https://www.oemoffhighway.com/market-analysis/industry-news/mining/press-release/21045631/keestrack-nv-keestrack-to-exhibit-emobility-products-at-bauma-2019>

Figure 1-3
Portable Crusher at Roadway Project Near a Receptor



Construction/Demolition Activities

Roadway construction and demolition activities cover one of the broadest ranges of activities and associated equipment types. In addition to alteration of existing roadways (for example to accommodate a light rail thoroughfare or expand the number of lanes on an existing freeway) this category includes construction/demolition of associated infrastructure such as bridges/overpasses and tunnels. Specifically, fugitive dust may be generated by the demolition of existing structures such as bridges, overpasses, sound and retaining walls (see Figure 1-4). Work on a roadway to cut, grind, resurface, plane (cold planing), and mill also qualifies as a construction/demolition activity. These activities typically consist of breaking up and removing material (potentially onsite) before construction material is re-installed to reconstruct the existing roadway. This is commonly achieved by using a milling machine as shown in Step #3 of Figure 1-1. Many large roadway projects seek to recycle all of the products of demolition, on-site at the project and reuse them as construction material. In general, a roadway activity that does not fit in any of the other defined roadway project categories as described in this Rule is either a construction or demolition activity.

The background area of Figure 1-3 also shows demolition materials piled up ready for crushing and recycling.

Figure 1-4
Bridge Demolition Activity Over a Large Roadway



Earth-Moving Activities

Earth-moving (soil) activities occur in new roadway construction, as shown in Figure 1-5³, as well as trenching or other excavation to gain access to underground utilities such as water sewer and water pipelines. Common equipment types include scrapers, graders, excavators, and bulldozers. It is also possible that the same equipment could also be classified as construction demolition (e.g., rollers and graders), depending on the project. Note that excavation of an existing roadway is a demolition activity since it involves breaking through an existing roadway. Figure 1-5 shows a variety of earth-moving equipment (for example, dozers and dump trucks) used in grading roadways.

³ <https://www.fox17online.com/news/local-news/south-mi/aiming-high-mdot-plans-to-demolish-3-freeway-bridges-in-one-night-on-i-94>

Figure 1-5
Earth-Moving Activities and Associated Fugitive Dust



Movement of Equipment Over Paved and Unpaved Roads

Figure 1-6 Fugitive Dust from Off-Road Hauler



Movement of all construction vehicle types within the boundaries of a roadway project can cause road dust to be re-entrained, which then could potentially lead to off-site fugitive dust impacts to areas of public exposure and sensitive receptors. This includes both off-road (see Figure 1-6⁴) and on-road vehicles operating on paved and unpaved roads at the job site. In addition to the off-road construction equipment, this would also include on-road trucks while they are shuttling around within the boundaries of the roadway project.

Material Piles

Typical material piles at roadway projects consist of post demolition and preconstruction recycled concrete/asphalt. Material piles are formed from primary demolition material (e.g., existing concrete or asphalt road is torn out) and again after being crushed to produce aggregate material. Other pre-crushed materials at roadway projects include concrete and stone from demolition of structures (e.g., bridges or overpasses associated with the roadway). Figure 1-7 shows demolition

⁴ <https://www.co.mendocino.ca.us/aqmd/grading-dust-controls.html>

material on-site at a roadway project where the existing on-site material is being re-used/recycled. After a reduction in size the material will be reused for the roadway project.

Figure 1-7: Demolition Material Pile at a Roadway Project



AIR QUALITY & HEALTH IMPACTS

Health studies have shown a significant association between exposure to particulate pollution and health risks, including premature death. Appendix I of the 2016 Air Quality Management Plan (AQMP)⁵ describes in more detail the health effects of fine particulates based on numerous studies including data on increased hospital admissions, emergency room and physician office visits and school absences. In addition to increased mortality other health effects include the exacerbation of respiratory and cardiovascular diseases (asthma and non-fatal myocardial infarction) and effects on lung function as well as lung morphology. Studies have shown an association with changes in the brain leading to both memory and cognitive decline, and also to the development of benign and malignant brain tumors.⁶

As shown in South Coast AQMD's MATES V study (see Figure 1-8),⁷ communities located near large roadways are already disproportionately impacted by air pollution due to diesel exhaust and other toxic pollutants from fossil fueled vehicles such as large trucks, cars and buses. Many studies have shown that large roadway-related pollution is found in much higher concentrations within the

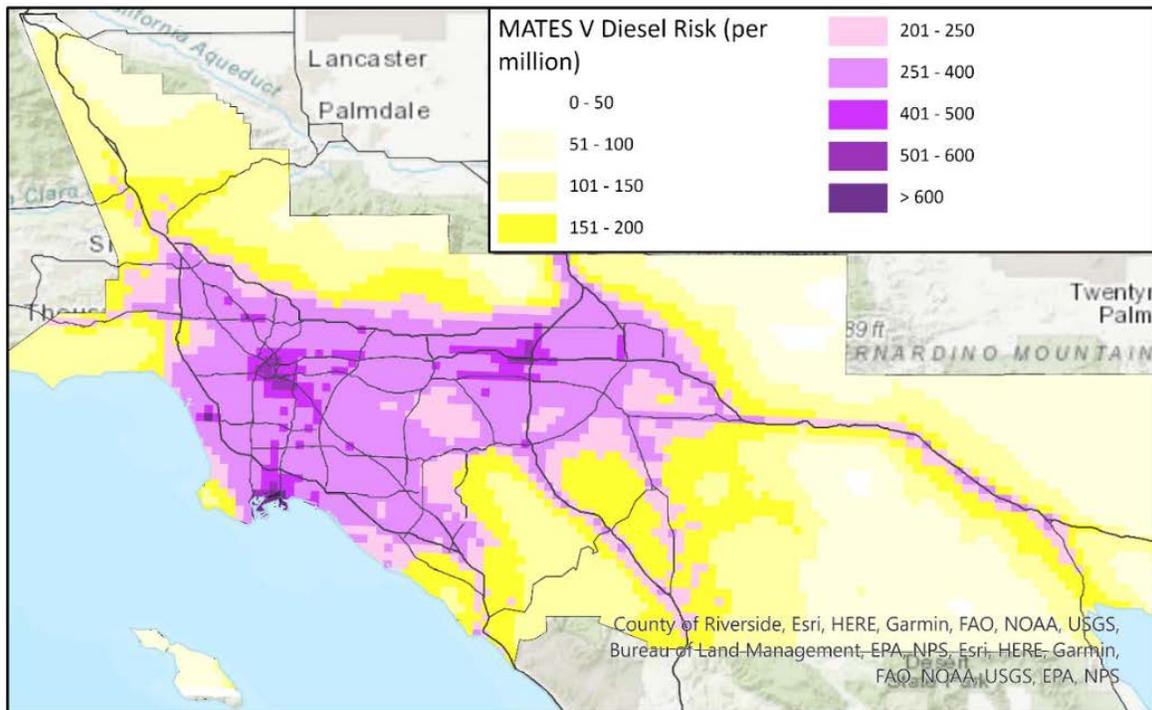
5 <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/appendix-i.pdf>

6 <https://www.aqmd.gov/nav/about/groups-committees/bltap-foundation/bltap-6th-annual-report>

7 http://www.aqmd.gov/docs/default-source/planning/mates-v/appendixix_final.pdf

first few hundred feet of the roadway.⁸ These elevated pollutant levels are also strongly associated with human health effects, as discussed in Chapter 9 if the 2012 AQMP.⁹ Figure 1-9 presents an example of the impacts of unhealthy air quality on children’s health in near roadway communities. PR 403.2 is intended to reduce any additional cumulative impacts of fugitive dust PM air emissions from large roadway projects on near road communities.

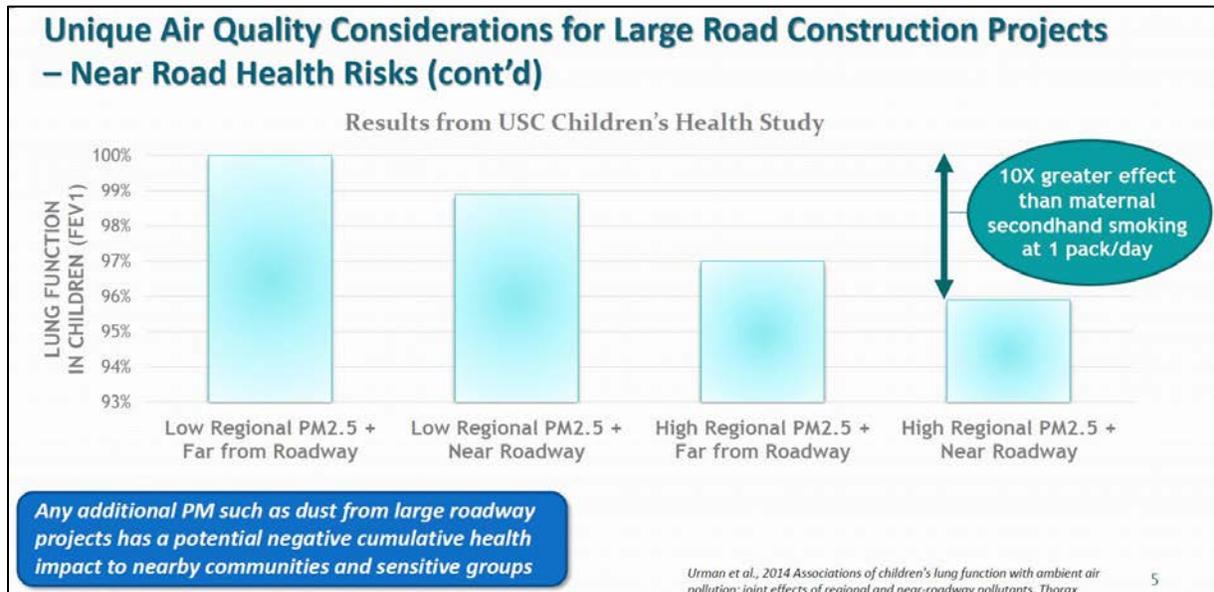
Figure 1-8
MATES V Inhalation Cancer Risk from Diesel PM from All Categories



8 http://www.aqmd.gov/docs/default-source/technology-research/Technology-Forums/near-road-mitigation-measures/near_road_mitigation-agenda-presentations.pdf

9 [http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2012-air-quality-management-plan/final-2012-aqmp-\(february-2013\)/chapter-9-final-2012.pdf](http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2012-air-quality-management-plan/final-2012-aqmp-(february-2013)/chapter-9-final-2012.pdf)

Figure 1-9
Impacts of Unhealthy Air Quality on Children’s Health



ANALYSIS OF HYPOTHETICAL LARGE ROADWAY PROJECT

Large roadway projects range from small repair or maintenance projects to large whole freeway construction projects, with numerous types of projects that vary in the types of equipment utilized, goal of the project, project duration and other factors. Table 1-1 shows the input data for a hypothetical large roadway project using standard inputs from the California Emissions Estimator Model (CalEEMod)¹⁰ for a hypothetical 10-acre road construction large roadway project. Since controlled activities/equipment should not result in significant if any fugitive dust emissions, uncontrolled standard model inputs were used to simulate and assess impacts when fugitive dust is generated. Model inputs used from CalEEMod were for the type of off-road construction vehicles, average number of vehicles per day by type of vehicle, and the number of hours per day that the vehicles are utilized organized by construction vehicle type). Results of a study of several California Department of Transportation (CalTrans) roadway projects were used as the inputs.¹¹ Some additional activities/equipment that were not included in this model would add to ambient PM air pollution include potential dust that could be re-entrained by service vehicles at the project site and smaller equipment such as concrete saws.

¹⁰ https://www.caleemod.com/documents/handbook/appendices/appendix_c.pdf

¹¹ <https://escholarship.org/uc/item/3zw7s1fk>

Table 1-1
CalEEMod Input Data for Hypothetical Large Roadway Project

10 Acre Site	Vehicle Type	Average Number of Vehicles	Hours per Day	Days per Vehicle	Total Hours of Vehicle Type Activity	Estimated Total Vehicle Days per Type
Demolition						
	Rubber Tired Dozers	2	8	2	32	4
	Concrete Saw	1	8	n/a	n/a	n/a
	Excavators	3	8	n/a	n/a	n/a
	Bore/Drill Rigs	0	0	n/a	n/a	0
	Tractors/Loaders/Backhoe	0	0	33	0	0
Grading						
	Rubber Tired Dozers	1	8	2	17	2
	Excavators	1	8	n/a	n/a	n/a
	Graders	1	8	4	34	4
	Scrapers	0	0	13	0	0
	Tractors/Loaders/Backhoe	3	8	33	801	100
Construction						
	Cranes	1	7	2	17	2
	Welders	1	8	n/a	n/a	n/a
	Excavators	0	0	n/a	n/a	n/a
	Forklifts	3	8	n/a	n/a	n/a
	Generator Sets	1	8	n/a	n/a	n/a
	Tractors/Loaders/Backhoe	3	7	33	701	100
Coating/Paving						
	Pavers	2	7	2	28	4
	Paving Equipment	2	8	n/a	n/a	n/a
	Cement and Mortar Mixer	0	0	n/a	n/a	n/a
	Plate Compactors	0	0	4	0	0
	Rollers	2	8	4	66	8
	Tractors/Loaders/Backhoe	0	0	33	0	0
Site Prep						
	Graders	0	0	4	0	0
	Bulldozer	3	8	2	48	6
	Excavators	0	0	n/a	0	0
	Scrapers	0	0	13	0	0
	Tractors/Loaders/Backhoe	4	8	33	1068	134

These estimated emissions were used as inputs for a dispersion modeling exercise using the EPA-approved AERMOD model. Emissions sources were geographically grouped and located in relation to an example location with adjacent homes and open space areas in order to illustrate potential impacts, however this specific location is not specifically associated with any large

roadway project. The resulting model output for PM₁₀ fugitive emissions is shown in Figure 1-10 as a contour map with 24-hour average PM₁₀ concentrations shown in the area contained within each contour boundary. While the model is hypothetical and represents a typical smaller project, the graphic shows that modeled large roadway projects result in ambient PM₁₀ emissions which decrease with distance from the project activity. As such, distance-based requirements from an area of public exposure or sensitive receptor are a way to reduce the impacts of PM from large roadway projects on near roadway communities.

Figure 1-10
Large Roadway Project PM₁₀ Impacts to Communities



FUGITIVE DUST COMPLAINTS FROM ROADWAY PROJECTS

In addition to the cumulative air quality impacts to receptors in close proximity to large roadway projects, South Coast AQMD regularly receives complaints from the public regarding fugitive dust from roadway projects. There have been over 78 roadway fugitive dust related complaints since 2018, and fugitive dust from roadway construction projects continues to be problematic for some larger projects. Specific details of these complaints and their disposition or on-going review are confidential, however, staff seeks to reduce such incidents with a more targeted rule (PR 403.2) that focuses on large roadway fugitive dust issues. Also, while the actual number fluctuates there are numerous roadway projects, on-going or planned, at any given time that could potentially result in fugitive dust complaints. In a recent search staff identified about 66 active/scheduled state and county road projects in the jurisdiction of South Coast AQMD. While Rules 402, 403, and 1157 focus broadly on applicable public nuisance, fugitive dust controls, and more specific requirements for fugitive dust from aggregate operations, respectively, PR 403.2 would focus specifically on

large roadway projects with the goal of preempting nuisance situations due to fugitive dust for such projects.

NEED FOR PROPOSED RULE 403.2

PR 403.2 is needed to further reduce fugitive dust impacts to areas of public exposure and sensitive receptors in close proximity to a large roadway project by prohibiting aggregate crushing and grinding operations and maintenance of material piles within 100 feet of any property line of an area of public exposure or a sensitive receptor. In order to ensure that South Coast AQMD and the surrounding community is aware of these projects ahead of time, the proposed rule also establishes requirements for advance notification prior to commencement of certain dust creating activities. Best practices to prevent fugitive dust generation is also needed due to the very close proximity of applicable sources to near road communities, and the rule includes additional or increased fugitive dust controls, project signage with contact information if dust occurs, recordkeeping of dust control measures that were implemented, and the designation of a dust control supervisor responsible for ensuring rule compliance.

PUBLIC PROCESS

PR 403.2 is being developed through a public process. South Coast AQMD has held four working group meetings remotely on July 15, 2021, October 22, 2021, December 14, 2021, and January 20, 2022. The Working Group is composed of representatives from business, environmental groups, public agencies, and consultants. The purpose of the working group meetings is to discuss the proposed rule and allow stakeholders the opportunity to provide input during the rule development process. In addition, staff has held 16 meetings remotely with different industry groups and public agencies since July 2021. The proposal is scheduled to be presented at the Stationary Source Committee on March 18, 2022, and a Public Workshop is scheduled for March 2, 2022, with close of comments on March 16, 2022. Below is a log of stakeholder meeting with staff as of this writing.

Date	Stakeholders
2/16/22	Construction Industry Air Quality Coalition
2/10/22	Caltrans
2/3/22	Metropolitan Water District
2/1/22	Southern California Gas Company
1/28/22	Construction Industry Air Quality Coalition, Cal Asphalt Pavement Association, AGC of California, SCCA

Date	Stakeholders
1/26/22	L.A. County Sanitation Districts, Metropolitan Water District, Southern California Alliance of POTWs, Irvine Ranch Water District and Eastern Municipal Water District
1/13/22	Caltrans
12/16/21	Southwest Concrete Pavement Association
12/9/21	California Construction and Industrial Materials Association
11/5/21	Southern California Association of Governments
9/23/21	Caltrans
9/2/21	L.A. Metro
8/19/21	Caltrans
8/4/21	Caltrans
7/30/21	California Construction and Industrial Materials Association
7/28/21	L.A. Metro
7/23/21	Mesa Water, Cal Asphalt Pavement Association, Yorke Engineering
7/22/21	Caltrans
7/15/21	Construction Industry Air Quality Coalition
7/13/21	California Construction and Industrial Materials Association

CHAPTER 2: SUMMARY OF PROPOSAL

INTRODUCTION

PROPOSED RULE 403.2

INTRODUCTION

PR 403.2 will supplement the existing regulatory measures in Rule 403 by establishing fugitive dust requirements for large roadway projects located near communities. Specifically, the proposed rule only applies to large roadway projects that are located within 500 feet from areas of public exposure and 1,000 feet of a sensitive receptor. PR 403.2 establishes restrictions for certain large roadway project activities to be conducted when in close proximity to areas of public concern and sensitive receptors, in addition to requiring provisions for enhanced dust control measures, notification, signage, designation of a dust control supervisor, and recordkeeping.

PROPOSED RULE 403.2

(a) Purpose

The purpose of PR 403.2 is to reduce potential air quality impacts to people who may be exposed to fugitive dust generated by large roadway projects.

(b) Applicability

PR 403.2 applies to any person who conducts activities, and/or authorizes the conducting of activities for a large roadway project. The provisions of this Rule are supplemental to requirements of Rules 403 and 403.1 and shall only apply when rule-specified activities for a large roadway project are conducted, or will be conducted, in close proximity to an area of public exposure or sensitive receptors near a large roadway, as defined in this Rule. Activities include specific types of aggregate crushing and grinding, construction/demolition activities and equipment, and maintenance of material piles.

(c) Definitions

For clarity and consistency, PR 403.2 mainly includes existing definitions found in Rule 403 with minor modifications for large roadway purposes. Other definitions are new or from other South Coast AQMD rules applicable to fugitive dust.

(c)(1): AGGREGATE CRUSHING AND GRINDING means any activity that mechanically reduces the size of loose or stockpiled material to produce sand, gravel, crushed stone, quarried rock, or other aggregate material (such as recycled concrete/asphalt). [*new definition*]

Aggregate crushing is typically a mechanical process for physically reducing larger sized materials (typically from demolition activities) into smaller recycled aggregate material. Grinding also reduces the amount of crushed material from the substrate, however, it is typically accomplished by friction between surfaces where one surface wears down the other.

(c)(2): AREA OF PUBLIC EXPOSURE means any area within the property line of any office, commercial or industrial property as well as any 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, athletic fields,

and campgrounds. Undeveloped open space areas that are not designated for recreation are not considered areas of public exposure for purposes of this Rule. [new definition]

For open space/recreational facilities, such as state or county parks, locations within the property line that are not designated for public, or staff use are excluded. For example, the buffer between a large roadway project and a park would begin at a trail, assuming no other designated uses for any land between the trail and the large roadway shown (see Example 1 in Appendix I). For developed properties like office buildings the converse is true. Although a building may be set back from the edge of the lot line, distances are measured to the lot line and not to any structure/building inside the lot line.

(c)(3): *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. [existing Rule 403 definition]

(c)(4): *CHEMICAL STABILIZERS* are any 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 U.S. Environmental Protection Agency (U.S. EPA), or any applicable law, rule or regulation. The chemical stabilizers shall 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 stabilizer surface. [existing 403 definition]

(c)(5): *CONSTRUCTION/DEMOLITION ACTIVITIES* means any mechanical activities conducted in preparation of, or related to, the building, alteration, rehabilitation, demolition or improvement of property, including, but not limited to the following activities: grading, excavation, loading and unloading, cutting, grinding, milling, (cold) planing, shaping, or ground breaking. [existing Rule 403 definition]

(c)(6): *CONSTRUCTION VEHICLE* means off-road and on-road vehicles that have the potential to entrain fugitive road dust used at a *LARGE ROADWAY PROJECT*. Examples include graders, bulldozers, excavators, cranes, loaders, backhoes, tractors, haul trucks, pick-up trucks and utility vans. [new definition]

(c)(7): *CONTRACTOR* means any person who has a contractual arrangement to establish or conduct activities at a for another person. [modified Rule 403 definition]

This definition was modified from Rule 403 to only apply to contractors associated with a large roadway project.

(c)(8): *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 soil 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. [*existing 403 definition*]

(c)(9): *DUST CONTROL SUPERVISOR* means a person with the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with all requirements of this Rule. [*existing 403 definition*]

(c)(10): *DUST SUPPRESANT* means water, hygroscopic materials, or non-toxic chemical stabilizers used as a treatment material to reduce fugitive dust emissions. [*existing 403 definition*]

(c)(11): *EARTH-MOVING ACTIVITIES* means the use of equipment for any activity where soil is being moved or uncovered including, but not limited to the following: grading, earth cutting and filling operations, loading or unloading of dirt or bulk materials, adding to or removing from material piles of bulk materials, landfill operations, weed abatement through disking, and soil mulching. [*modified Rule 403 definition*]

This definition was modified from Rule 403 to apply to materials piles, as defined in this rule, rather than open storage piles.

(c)(12): *FUGITIVE DUST* means any solid particulate matter that becomes airborne, other than that emitted from an exhaust stack, directly or indirectly as a result of the activities of any person. [*existing 403 definition*]

(c)(13): *LARGE ROADWAY* means any portion of a roadway with an annual daily average number of vehicle trips in excess of 100,000 based on the most recent Federal Highway Administration (FHA) Average Annual Daily Traffic (AADT) data available. [*new definition*]

During the public process for developing concepts for PR 403.2, staff had requested stakeholder feedback on how to best define a large roadway. Several approaches to defining a large roadway for the purposes of applicability were evaluated which included the throughput of materials for the project, duration, type of equipment used, and the number of roadway lanes. Each of these approaches carry benefits and drawbacks. Determining a material throughput or project duration threshold is problematic since a lower throughput or shorter duration is not necessarily indicative of a lower potential for fugitive dust. This can be better determined by the level of best practices and work management for the project. Also, there are some roadways with fewer lanes, but a higher volume of traffic than roadways with more lanes, such as Route 110 in Los Angeles which has fewer lanes than some sections of Route 10 running through less densely portions of Riverside county. Since roadways that are used more intensively will typically also require more repair, maintenance and other roadway project activities, a metric that measures the volume of traffic on a roadway is most appropriate and representative. A widely used metric for traffic volume is the Average Annual Daily Traffic (AADT).

The California Air Resources Board (CARB) defines large urban roadways and large rural roadways as those with a 100,000 and 50,000 AADT, respectively¹². Conceptual preliminary draft language presented at a working group meeting in December 2020 simplified the definition of a large roadway to strictly 100,000 AADT, especially given the predominantly urban nature of the South Coast AQMD region.

The proposed definition for a large roadway could be interpreted as classifying the entire length of a roadway as a ‘large roadway’, if any part of it has more than 100,000 AADT, when in most cases, only a portion of the roadway actually achieves this level of AADT. For example, portions of U.S. Route 10 run through downtown Los Angeles with AADT that are much higher than 100,000. However, portions of U.S. Route 10 that run through eastern Riverside County do not exceed 100,000 AADT. Staff’s intent is to restrict applicability of the PR 403.2 to only those portions of a roadway that exceed 100,000 AADT, and not the entire length of a roadway if only one portion exceeds 100,000 AADT.

The Federal Highway Administration (FHWA) is an agency within the federal U.S. Department of Transportation that supports State and local governments in the design, construction, and maintenance of the Nation’s highway system (Federal Aid Highway Program) and various federally and tribal owned lands (Federal Lands Highway Program).¹³ FHWA also classifies roadways and maintains data on traffic volumes.¹⁴ While various cities, counties and the California Department of Transportation (Caltrans) do maintain their own AADT data, they are specific to the jurisdiction covered by the agency (county or state route systems as applicable). FHWA Annual Average Daily Traffic (AADT) is the most comprehensive AADT data available in one repository. Staff is exploring the possibility of using this data source as the reference for a tool that could determine the portions of a roadway that would be classified as a large roadway for the purposes of this Rule. Figure 2-1 below shows a rendering of what this conceptual interactive tool might look like.

¹² <https://ww3.arb.ca.gov/ch/handbook.pdf>; https://ww2.arb.ca.gov/sites/default/files/2017-10/rd_technical_advisory_final.pdf

¹³ <https://highways.dot.gov/>

¹⁴ https://geo.dot.gov/server/rest/services/Hosted/HPMS_FULL_CA_202/FeatureServer/0

Figure 2-1
Conceptual Map Showing Annual Average Daily Traffic



The applicable date for determining whether a roadway is classified as a large roadway is the date of the large roadway project contract execution by the person with the authority to make such decisions for the roadway project. This is typically the state, county, or local government agency that either performs the work or hires a contractor to do work on their behalf.

(c)(14): *LARGE ROADWAY PROJECT* means the construction/demolition, improvement, repair, or maintenance of a large roadway, including any adjacent property associated with the large roadway such as a bridge, overpass, or onramp. [*new definition*]

(c)(15): *MATERIAL PILE* means any accumulation of bulk material, 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. [*modified Rule 403 definition*]

This definition was modified from the Rule 403 definition for “open storage pile” in order to better characterize the type of materials that a storage pile would comprise of for a roadway project.

(c)(16): *PARTICULATE MATTER* means any material, except uncombined water, which exists in a finely divided form as a liquid or solid at standard conditions. [*existing 403 definition*]

(c)(17): *PAVED ROAD* means a public or private improved street, highway, alley, public way, or easement that is covered by typical roadway materials, but excluding access roadways that connect a facility with a public paved roadway and are not open to through traffic. Public paved roads are those open to public access and that are owned by any federal, state, county, municipal or any other governmental or quasi-governmental agencies. Private paved roads are any paved roads not defined as public. [*existing 403 definition*]

(c)(18): *PERSON* means any individual, firm, association, organization, partnership, business trust, corporation, company, contractor, supplier, install, user or owner, or any state or local

governmental agency or public district or any other officer or employee thereof. [*existing 102 definition*]

(c)(19): *SCHOOL* means any public or private education center, including juvenile detention facilities with classrooms, used for the education of more than 12 children at the education center in kindergarten through grade 12. A school also includes an Early Learning and Developmental Program by the U.S. Department of Education or any state of local early learning and developmental programs such as preschools, Early Head Starts, Head Start, First Five, and Child Development Centers. A school does not include any private education center in which education is primarily conducted in private homes. A school includes any building or structure, playground, athletic field, or other area of school property. [*existing Rule 1466 definition*]

(c)(20): *SENSITIVE RECEPTOR* means a residence including private homes, condominiums, apartments, and living quarters, schools, preschools, daycare centers and health facilities such as hospitals or retirement and nursing homes. A sensitive receptor includes long term care hospitals, hospices, prisons, and dormitories or similar live-in housing. [*existing Rule 1470 definition*]

(c)(21): *STABILIZE* means sufficient use (of both amount and frequency) of a dust suppressant to ensure compliance with the fugitive dust control measures of this Rule. [*new definition*]

(c)(22): *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. [*existing Rule 403 definition*]

(c)(23): *TYPICAL ROADWAY MATERIALS* means concrete, asphaltic concrete, recycled asphalt, or any other material of equivalent performance as determined by the Executive Officer. [*existing Rule 403 definition*]

(c)(24): *UNPAVED ROAD* means any unsealed or unpaved roads, equipment paths, or travel ways that are not covered by typical roadway materials. Public unpaved roads are any unpaved roadway owned by federal, state, county, municipal or other governmental or quasi-governmental agencies. Private unpaved roads are all other unpaved roadways not defined as public. [*existing 403 definition*]

(d) Requirements

Provisions of PR 403.2 are proposed to be effective beginning 6 months after the date of rule adoption. This would allow sufficient time for stakeholders that have requested lead time to update contracts and other internal specifications and guidance documents to reflect Rule requirements. Caltrans is currently in the process of developing project specifications for a potential pilot program which proactively implements provisions of PR 403.2 for select roadway projects.

Paragraph (d)(1), barring an emergency or an applicable exemption, includes a prohibition of aggregate crushing and grinding activities or maintenance of material piles within 100 feet of an area of public exposure or sensitive receptor.

As defined in PR 403.2, piles that are less than 3 feet in height and have a total surface area of less than 150 square feet are not considered to be material piles for the purposes of the proposed rule. This definition is consistent with the definition of open storage piles subject to existing Rule 403 with the exclusion of piles that are covered or stabilized. To prevent circumvention of the intent of the rule, multiple piles that are less than 3 feet in height and have a total surface area of 150 square feet in surface area must be separated from each other by a minimum of 25 feet measured from the pile base perimeter of any pile to any other pile. Otherwise, these smaller piles would be additive and considered as one large material pile that would be subject to the provisions of PR 403.2.

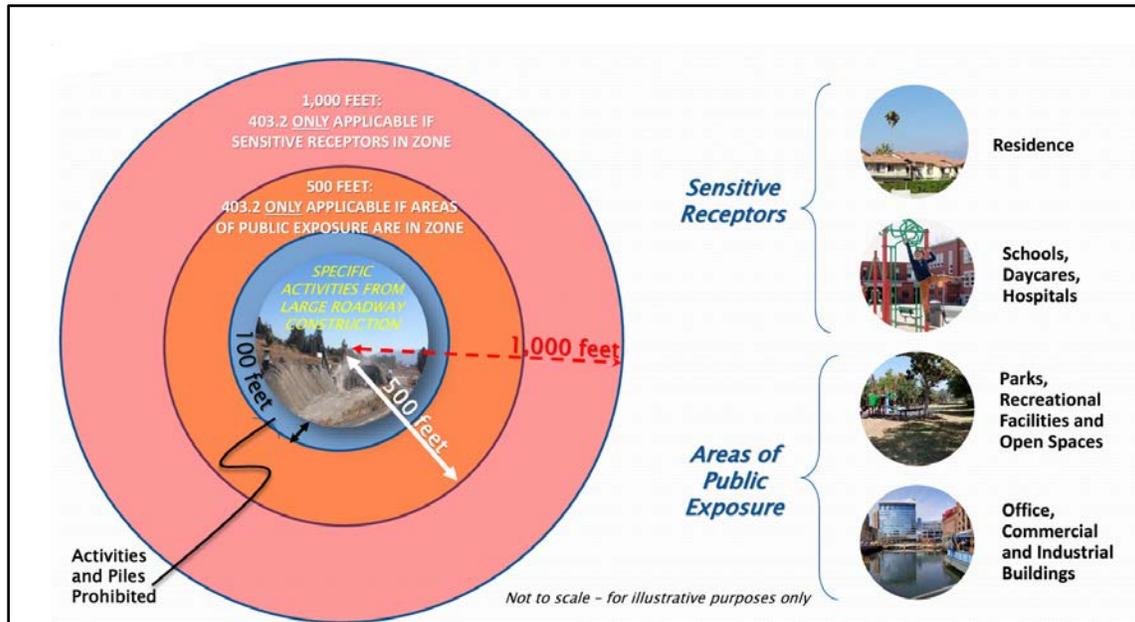
Paragraph (d)(2) specifies requirements for large roadway projects that have the activities listed below that are conducted within 500 feet of an area of public exposure or 1,000 feet of a sensitive receptor:

- (A) Aggregate crushing and grinding operations;
- (B) Construction/demolition activities;
- (C) Earth-moving or any other mechanical activity that results in disturbed surface area;
- (D) Movement of construction vehicles over paved and unpaved roads; or
- (E) Maintenance of material piles.

No person shall conduct the above activities at a large roadway project at the specified distances unless in compliance with the provisions of subdivision (e) for Additional Requirements and subdivision (f) Recordkeeping.

Distances specified in subdivision (d) shall be measured from the nearest edge or perimeter of the specified activity or material pile for the large roadway project to the closest point of the property line of the nearest sensitive receptor, or location within an area of public exposure. Figure 2-2 below shows the distances and requirements of Subdivision (d).

Figure 2-2
Determination of Requirements of Subdivision (d)



For the purpose of this rule, the 500 and 1,000 feet distances were based on research of policies established by several public agencies. The City of San Bernardino adopted resolution #2020-265 on 10/21/2020 to prohibit crushing/grinding on or within 1,000 feet of residential zoned lots, and only allows finished materials ready for grading or construction to be stockpiled (see Appendix II). L.A. Metro established the Green Construction Policy on July 11, 2011, which requires a minimum of 1,000 feet between truck traffic and sensitive receptors (see Appendix III). It also required notification if construction activities are located within 1,000 feet of sensitive receptors. Additionally, the Los Angeles County Department of Regional Planning has a Green Zones Public Draft Ordinance 20210617 indicating that any construction and demolition debris or inert debris processing facility sites shall be located outside a 500-foot buffer of a lot that contains a sensitive use. In addition, any construction and demolition debris processing facility or inert debris processing facility located between a 501-1,000-foot buffer of a lot that contains a sensitive use shall conduct all operations, including storage and equipment use, within completely enclosed buildings.¹⁵

(e) Additional Requirements

Additional requirements of subdivision (e) are separated into four paragraphs outlining requirements for (1) a Dust Control Supervisor, (2) Control Measures, (3) Signage, and (4) Notification.

¹⁵ https://planning.lacounty.gov/assets/upl/project/greenzones_public-draft-ordinance-20210617.pdf

Dust Control Supervisor

Paragraph (e)(1) requires that a person responsible for a large roadway project identifies and designates a Dust Control Supervisor, as defined by the Rule, that:

- (A) is employed by or contracted with the property owner, developer, or other persons responsible for the Large Roadway Project;
- (B) is on the site or available on-site within 30 minutes during working hours;
- (C) has completed South Coast AQMD Fugitive Dust Control Class and holds a valid Certificate of Completion for the class; and
- (D) is responsible for responding to air quality issue inquiries regarding the Large Roadway Project.

PR 403.2 would require the dust control supervisor to be responsible for generating/maintaining daily records during the term of the large roadway project pursuant to subdivision (e) and make them available to the Executive Officer upon request. After project completion the person (as defined in this rule) responsible for the project shall keep records for a minimum of three years and make such records available to the Executive Office upon request.

Control Measures

Paragraph (e)(2) requires the use of the following applicable control measures to prevent fugitive dust and visible emissions. The control requirements listed below are consistent with those found in Rule 403 for Large Operations.

<p>Aggregate Crushing and Grinding Operations</p>	<p>Stabilize surfaces prior to operation of equipment (including construction vehicles such as bulldozers, cranes or backhoes) and prior to any crushing and grinding; and</p> <p>Stabilize aggregate material piles after aggregate crushing and grinding by applying a dust suppressant to prevent dust plumes 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.</p>
<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 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.</p>

<p>Dust from Construction Vehicles (Implement all controls)</p>	<p>Apply dust suppressant as necessary to prevent visible emissions during vehicle operation; and Limit vehicle speed to 15 miles per hour on roadways; and 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 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>
<p>Material Piles (One or more controls measures, as needed, to ensure fugitive dust control)</p>	<p>Maintain 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.</p>

Signage

Signage for a large roadway project is intended to facilitate public access to the Dust Control Supervisor as the first point of contact regarding questions and potential fugitive dust issues. Dimensions and other requirements are intended to make the signs more visible, so that they may be easily seen by members of the public who are looking for a point of contact with a responsible person for the project. The format and requirements for the sign is the same as that required for Large Operations pursuant to Rule 403.

Paragraph (e)(3) establishes requirements to install and maintain project signage that, at a minimum, meets the following:

- (A) Signage must be located within 50 feet of each project site entrance.
- (B) A maximum of four signs are required per large roadway project.
- (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:

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

Notification

The proposed notification requirement of paragraph (e)(4) has two components. The first component (subparagraph (e)(4)(A)) requires the Dust Control Supervisor or other responsible person for the large roadway project to notify the owner(s) or occupant(s) of areas of public exposure or sensitive receptors, in writing (e.g., flyer or email), at least 120 hours prior to

commencing activities, including staging of equipment, located within the specified distances of paragraph (d)(2). The notification shall 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.

Proof of the notification (such as return receipts, mailing lists, flyer copies) should be retained with other required recordkeeping and made available upon request by the Executive Officer.

The second component (subparagraph (e)(4)(B)) requires the Dust Control Supervisor to notify South Coast AQMD so that staff is aware of the project and who to contact in case any dust related issues arise (see Appendix IV for a sample form). Notification shall be made to the Executive Officer, in writing, at least 120 hours prior to commencing activities, including staging of equipment, and shall at a minimum include the following information:

- (i) 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;
- (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).

(f) Recordkeeping

PR 403.2 recordkeeping is consistent with requirements for Rule 403 Large Project requirements. The responsible person for the recordkeeping is the person defined in the PR403.2. Typically, the only type of permit required at a large roadway project will be those issued by South Coast AQMD and CARB's Portable Equipment Registration Program associated with large portable equipment such as aggregate (recycled concrete/asphalt) crushing equipment. Recordkeeping is needed to keep track of all equipment with the potential of generating dust significant enough to impact an area of public exposure or a sensitive receptor. Furthermore, it is also needed to provide a log of the control measures undertaken to prevent fugitive dust issues. Staff anticipates that in practice the dust control supervisor, as the ultimate on-site staff responsible for dust control, will most likely oversee the generation and maintenance of daily records. However, in all cases the

responsible person, as defined in PR 403.2, for the large roadway project is ultimately responsible for ensuring that daily records are generated, maintained, and archived for a minimum of three years and also that they are made available to the Executive Officer upon request during this time (see Appendix V for a sample form).

- (1) The responsible person for large roadway projects shall maintain daily records of the required fugitive dust control measures pursuant to paragraph (e)(2) for a large roadway project documenting:
 - (A) Each type of activity conducted and the associated permitted powered equipment with the potential to generate fugitive dust;
 - (B) The specific fugitive dust control measures taken for each activity or equipment; and
 - (C) The frequency of fugitive dust control measures implemented.
- (2) Records shall be retained for a minimum of three years by the responsible person for the large roadway project and shall be made available to the Executive Officer upon request.

(g) Exemptions

The exemption in paragraph (g)(1) allows large roadway projects to be exempt for all requirements if it is conducted during emergency life-threatening situations, where a sudden, unexpected occurrence that poses a clear and imminent danger, requiring immediate action to prevent or mitigate the loss of impairment of life, health, property, or essential public service, or in conjunction with any officially declared disaster or state of emergency as declared by an authorized health officer, agricultural commissioner, fire protection officer or other authorized health officer. The Executive Officer must be notified electronically no later than 48 hours following such emergency activities for a large roadway project and the notification must include a written emergency declaration from the authorized officer.

Similarly, in exemption paragraph (g)(2), a large roadway project conducted by essential service utilities to provide electricity, natural gas, telephone, water or sewer during periods of service outages and emergency disruptions are also exempt for all requirements. The Executive Officer shall be notified no later than 48 hours following such activities for large roadway project.

The exemption in paragraph (g)(3) allows material resulting from linear trenching for natural gas, power, sewer, and water projects on large roadways that are directly loaded into a truck bed, trailer, or bin for transport to be exempted from the prohibition of material piles specified in paragraph (d)(1). Sites can be exempt from the prohibition of material piles within 100 feet from an area of public exposure and sensitive receptor in paragraph (d)(1), in addition to signage requirements under paragraph (d)(3).

CHAPTER 3: IMPACT ASSESSMENT

AFFECTED SOURCES

COMPLIANCE COSTS

SOCIOECONOMIC IMPACT ASSESSMENT

CALIFORNIA ENVIRONMENTAL QUALITY ACT

**DRAFT FINDINGS UNDER CALIFORNIA HEALTH AND SAFETY CODE
SECTION 40727**

COMPARATIVE ANALYSIS

AFFECTED SOURCES

Affected sources are limited to entities that own or operate large roadways, in addition to industries that perform activities and operate equipment for a large roadway project. PR 403.2 defines a large roadway projects as those that involve the construction/demolition, improvement, repair, or maintenance of a large roadway, or portions of which, that exceed 100,000 VMT. Furthermore, the proposed rule would only apply if the large roadway project is located within 500 feet of an area of public exposure, or 1,000 feet of a sensitive receptor. Adjacent properties of a large roadway are also affected and must be “associated” with the large roadway itself (e.g., bridge, overpass). As such, PR 403.2 would only be applicable to the responsible person for the large roadway project (public agencies such as state and county authorities) or contractors conducting the activities of the large roadway project. It is anticipated that the majority of projects subject to PR 403.2 will be state/interstate highways due to the 100,000 VMT provision, which will either fall under the jurisdiction of Caltrans or the applicable county. South Coast AQMD has jurisdiction for stationary air quality control in the county of Orange and portions of the Los Angeles, Riverside and San Bernardino counties.¹⁶

COMPLIANCE COSTS

Staff anticipates minimal cost incurred for compliance with the proposed rule. Compliance activities associated with costs include requirements for notification, signage, recordkeeping, and additional dust controls that have not already been implemented in accordance with existing South Coast AQMD rules and requirements for dust control. Cost details will be provided in the draft staff report.

SOCIOECONOMIC IMPACT ASSESSMENT

A socioeconomic impact assessment will be conducted and released for public review and comment at least 30 days prior to the South Coast AQMD Governing Board Hearing, which is anticipated to be heard on May 6, 2022.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

Pursuant to the California Environmental Quality Act (CEQA) and South Coast AQMD’s certified regulatory program (Public Resources Code Section 21080.5, CEQA Guidelines Section 15251(l) and South Coast AQMD Rule 110), South Coast AQMD, as lead agency, is currently reviewing the proposed project (PR 403.2) to determine if it will result in any potential adverse environmental impacts. Appropriate CEQA documentation will be prepared based on the analysis.

¹⁶ <https://www.aqmd.gov/nav/about/jurisdiction>

DRAFT FINDINGS UNDER CALIFORNIA HEALTH AND SAFETY CODE SECTION 40727

Requirements to Make Findings

California Health and Safety Code Sections 40727 and 40001(c) require that prior to adopting, amending or repealing a rule or regulation, the South Coast AQMD Governing Board shall make findings of necessity, authority, clarity, consistency, non-duplication, and reference, and the problem alleviated, respectively, based on relevant information presented at the public hearing, and in the staff report in the rulemaking record and presented at the hearing.

Necessity

Proposed Rule 403.2 is needed to address the air quality impact, including the cumulative burden of fugitive particulate for sensitive receptors in close proximity to large roadways which requires more specific regulation than existing general regulation of fugitive dust.

Authority

The South Coast AQMD Governing Board has authority to adopt Proposed Rule 403.2 pursuant to the California Health and Safety Code Sections 39002, 40000, 40001, 40702, 40725 through 40728, and 41508.

Clarity

Proposed Rule 403.2 is written or displayed so that its meaning can be easily understood by the persons directly affected by it.

Consistency

Proposed Rule 403.2 is in harmony with and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations.

Non-Duplication

Proposed Rule 403.2 will not impose the same requirements as any existing state or federal regulations. The proposed rule is necessary and proper to execute the powers and duties granted to, and imposed upon, South Coast AQMD. South Coast AQMD Rule 403 has some similar provisions for large operations, but there is minimal overlap between the two rules for large roadway projects of which only a small subset are also subject to Proposed Rule 403.2. Generally Proposed Rule 403.2 has more stringent provisions than Rule 403 for large roadway projects.

Reference

By adopting Proposed Rule 403.2, South Coast AQMD Governing Board will be implementing, interpreting or making specific the provisions of the California Health and Safety Code Section 41700 (nuisance), 39002 (air pollution from non-vehicular sources), 40001 (rules to achieve ambient air quality standards) and 41508 (additional standards).

COMPARATIVE ANALYSIS

Under California Health and Safety Code Section 40727.2, South Coast AQMD is required to perform a comparative written analysis when adopting, amending, or repealing a rule or

regulation. The comparative analysis is relative to existing federal requirements, existing or proposed South Coast AQMD rules and other air pollution control requirements and guidelines which are applicable large roadway projects. PR 403.2 would not conflict with existing Rules of South Coast AQMD regulating particulate matter, but in some instances would require more stringent limits than would be otherwise required under existing rules. PR 403.2 provides more stringent requirements for large roadway projects and prohibits rule-specific activities to be conducted in close proximity to sensitive receptors that is not currently prohibited by existing rules. Existing Rule 403 regulates fugitive dust generally, but imposes equivalent signage, recordkeeping and similar dust control measures to PR 403.2 only for large operations and does not prohibit operations based on proximity to areas of public exposure or sensitive receptors. Additional dust control measures in PR 403.2 would be equivalent to dust control measures for large operations in Rule 403. Existing Rule 403.1 applies only to sources in the Coachella Valley area, and potentially has some overlap with PR 403.2 which would apply to large roadway projects in the Coachella Valley area. Control measures in PR 403.2 would be equivalent to control measures for large operations in Rule 403.1. Existing Rule 1157 applies only to aggregate and related operations. Existing Rule 1466 applies to earth-moving activities for toxic soils. Existing Rules 401 and 402 prohibit excess visible emissions and public nuisance respectively. See Table 3-1 for a comparative analysis matrix.

Table 3-1
Comparative Analysis of Existing Rules to PR 403.2

Rule / Statute	Source	Emission Reductions / Limits	Averaging Procedures (Units), Work Practices, Operating Provisions	Monitoring, Recordkeeping, Reporting, Test Methods	Notification Requirements
401	Any single source of emissions; including exhaust stack emissions.	Prohibits excess visible emissions. ¹⁷	20 percent opacity cannot be exceeded three minutes in any hour, cumulatively.	Test method based on opacity as determined by Ringlemann chart or U.S. EPA Method 9.	None
402	Any source	Prohibits public nuisance caused by emissions of air	None	None specified.	None

¹⁷ PR 403.2 provides a lower limit for visible emissions than Rule 401 within 100 feet of sensitive receptors. Rule 401 limits visible emissions to Number 1 Ringlemann or 20% opacity in excess of three minutes within any hour. PR 403.2 would prohibit aggregate operations or large roadway project material piles large than 150 sq. ft. within 100 feet of sensitive receptors.

Rule / Statute	Source	Emission Reductions / Limits	Averaging Procedures (Units), Work Practices, Operating Provisions	Monitoring, Recordkeeping, Reporting, Test Methods	Notification Requirements
		contaminants. ¹⁸			
403	Any active operation; Large operations of 50 acres or more	No visible emissions past property line / no greater than 20 percent opacity for vehicle emissions ¹⁹	Best Available Control Measures Additional Control Measures / Contingency Control Measures (large operations) ²⁰	Daily recordkeeping of control measure implementation (large operations) ²¹	Notice to South Coast AQMD annually (large operations) ²²
403.1	Active operations in Coachella Valley	None	Fugitive Dust Control Plan with BACM (operations >5000 sq ft) ²³	Windspeed recording Daily recordkeeping	None
404	Applicable to any source	Prohibits discharge of particulate matter in excess of certain rates. ²⁴	Based on grains per cubic foot of air stream.	None specified.	None
405	Any source	Prohibits discharge of particulate matter weight in excess of specified rates. ²⁵	Establishes maximum discharge rate (lbs./hr.) based on process weight per hour.	None specified.	None

¹⁸ Rule 402 provisions are implemented primarily in response to public complaints. PR 403.2 requirements are applicable regardless of whether public complaints are filed.

¹⁹ PR 403.2 would prohibit any emissions from large roadway project material piles larger than 150 sq. ft. within 100 feet of sensitive receptors, unless specifically exempted. Rule 403 prohibition on emissions is more stringent in all other circumstances and would be in addition to other requirements in PR 403.2.

²⁰ PR 403.2 would require control measures which are in some instances more stringent than the BACM requirements of Rule 403 but which are equivalent to the control measures required of large operations under Rule 403. Some large roadway projects regulated by PR 403.2 would not meet the definition of large operation under Rule 403, and for those sources PR 403.2 would be more stringent than Rule 403.

²¹ PR 403.2 would require daily recordkeeping for large roadway projects consistent with what Rule 403 requires for large operations. Some large roadway projects regulated by PR 403.2 would not meet the definition of large operation under Rule 403, and for those sources PR 403.2 would be more stringent than Rule 403.

²² PR 403.2 would require advance notice to owner/occupants of nearby sensitive receptors and South Coast AQMD. Rule 403 requires notice of large operators within 7 days to South Coast AQMD.

²³ Rule 403.1 requires for operations > 5000 sq ft. a fugitive dust control plan with control measures, signage, and dust control supervisor consistent with and supplemental to Rule 403. PR 403.2 would impose similar signage, and dust control supervisor requirements, and in some instances more stringent control measures directly for large roadway projects.

²⁴ This Rule is used in conjunction with the South Coast AQMD's permitting system. Fugitive dust sources subject to PR 403.2 requirements are exempt from South Coast AQMD permits.

²⁵ This Rule is used in conjunction with South Coast AQMD's permitting system. Fugitive dust sources subject to PR 403.2 requirements are exempt from South Coast AQMD permits.

Rule / Statute	Source	Emission Reductions / Limits	Averaging Procedures (Units), Work Practices, Operating Provisions	Monitoring, Recordkeeping, Reporting, Test Methods	Notification Requirements
1157	Applicable to aggregate and related operations	No visible plumes extending > 100 ft / no greater than 20 percent opacity ²⁶	Opacity Test Method No. 9B (12 reading avg) Work practice control measures ²⁷	Recordkeeping of work practice controls implemented	None
1466	Applicable to earth-moving activities of toxic soil	Reduce monitored PM ₁₀ concentrations 25 microgram/m ³ averaged over 30 minutes.	Fencing for on-site earth-moving activities, dust control measures, stockpiles, speed limits, signage.	Monitor PM ₁₀ concentrations, recordkeeping of work practice controls implemented.	Notification to District at least 72 hours before conducting earth-moving activities
CA Health & Safety Code 41700	Any source	Prohibits public nuisance caused by emissions of air contaminants. ²⁸	None	None specified.	None
CA Health & Safety Code 41701	Applicable to any source.	Prohibits discharge of excessive visible emissions. ²⁹	40 percent opacity cannot be exceeded three minutes in any hour, cumulatively.	Test methods - Ringlemann chart or U.S. EPA Method 9.	None
Federal Regulation	No regulations identified.	No regulations identified.	No regulations identified.	No regulations identified.	No regulations identified.

²⁶ PR 403.2 would prohibit any emissions from aggregate operations or large roadway project material piles large than 150 sq. ft. within 100 feet of sensitive receptors. Rule 1157 prohibition on emissions is more stringent in all other circumstances and would be in addition to other requirements in PR 403.2 for aggregate operations.

²⁷ PR 403.2 would require control measures which are consistent with the work practice requirements of Rule 1157 and prohibit any visible emissions travelling more than 100 feet in any direction through application of dust suppressants.

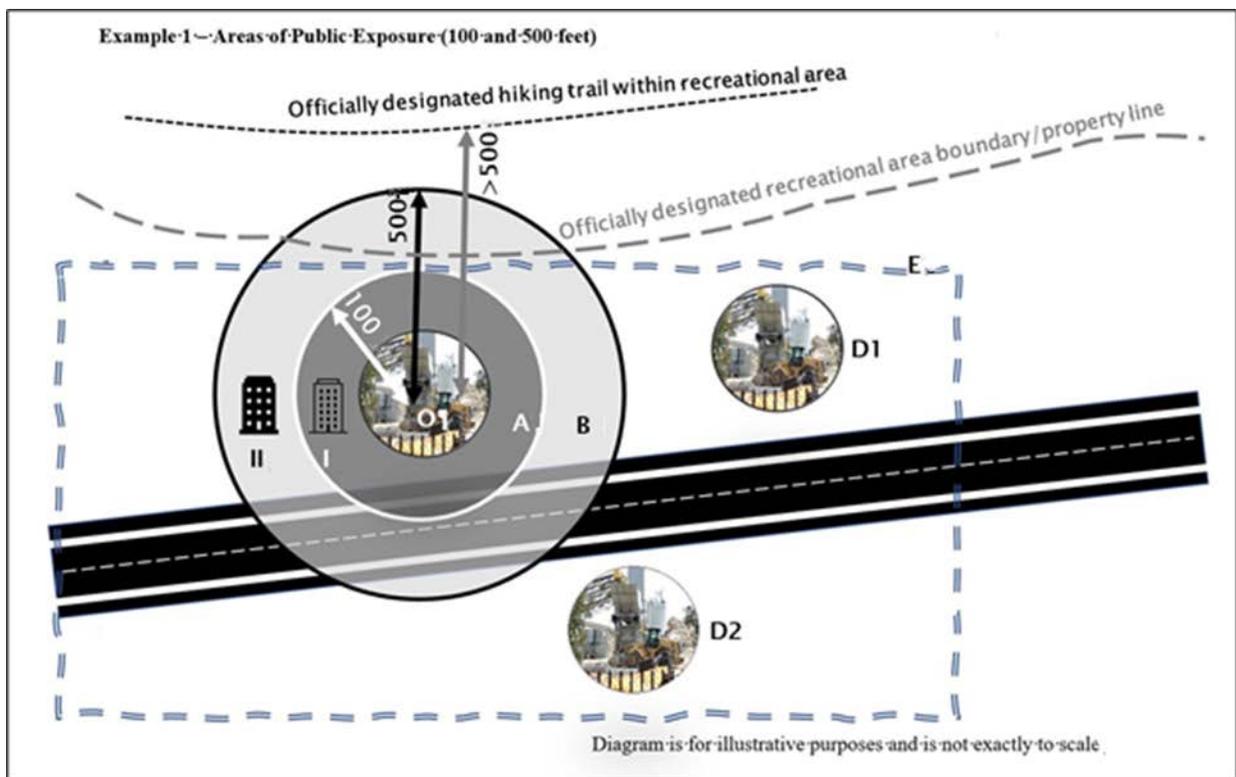
²⁸ The statute is co-extensive with Rule 402. See footnote 2.

²⁹ The statute is co-extensive with Rule 401. See footnote 1.

APPENDICES

APPENDIX I – HYPOTHETICAL PR 403.2 APPLICABILITY SCENARIOS

The examples below illustrate some hypothetical scenarios where PR 403.2 may apply. These hypothetical illustrative examples occur near large roadways and so qualify as large roadway projects, if specific distance criteria are met, otherwise PR 403.2 would not be applicable. The following hypothetical examples are purposely simplified in order to make them more easily understood. Assumptions made include that only the activities/equipment shown constitute the project, while projects typically have more and varied types of equipment on site simultaneously and also that there are not multiple areas of public exposure or sensitive receptors with potential overlap besides the ones shown in the hypothetical examples below.

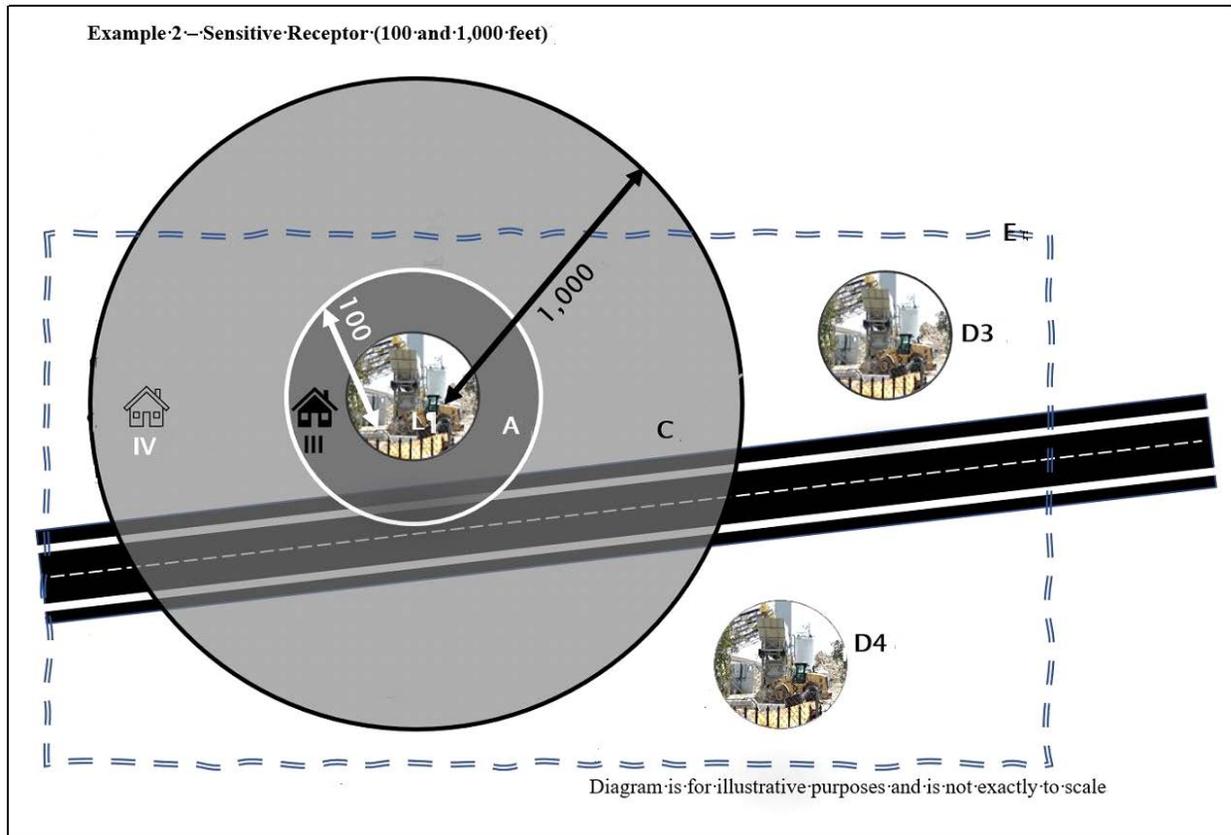


Hypothetical Example 1, shows two areas of public exposure, office buildings (indicated by I and II) and an officially designated recreation area as defined in PR 403.2 (i.e., not vacant uninhabited land or non-recreation open space). Both the office buildings and recreational area are located near a large roadway as defined in PR 403.2 (and shown here as a black road with a white dashed median and rail guards/sound walls on either side of the road). In this example, aggregate (recycled concrete) crushing activity is being conducted with crushing equipment, located at O, near the large roadway. The aggregate crushing equipment is both adjacent (directly next) to and associated with the large roadway so that this project qualifies as a large roadway

project. Area E, shown here as a wavy double line, encompasses the total area of the project on which the contractor has the authority to carry out aggregate crushing and other large roadway activities, or site/operate equipment.

Office building I in area A is within a radius of a 100 feet from the location perimeter of the aggregate crushing equipment, located at O. In Example 1, barring an emergency situation, aggregate crushing activities at this large roadway project could not be conducted at location O. Aggregate crushing activities/equipment could be located at O if an area of public exposure was located in area B (office building II), and not in area A, if the contractor is in compliance with all applicable requirements of PR 403.2. If the large roadway project aggregate crushing activity/equipment is not located at O, say for example at D1 or D2 in area E, then the aggregate crushing activity/equipment would not be subject to the requirements of PR 403.2 because they are not within the 500 feet distance from the area of public exposure. These prohibitions, regarding distances of the activity/equipment to areas of public exposure, are also applicable to material piles as defined in the PR 403.2.

Another type of potential area of public exposure as shown in this example is an officially designated recreation area (e.g., a county open space recreational area or county/city designated amusement park). Note that for the purposes of PR 403.2, the applicable distance is measured from the perimeter of the activity/equipment location to the boundary/property line of the office building or in the case of an officially designated recreational area, the closest area of officially designated recreational activity (e.g., a hiking trail as shown by the dotted line inside the recreational area). Therefore, an office building with a large setback from the curb or boundary/property line, for example with a large parking lot, may still be within a distance that requires compliance with the provisions of PR 403.2, even though the habitable structure is more than 500 feet away from O. Conversely, locating the aggregate crushing equipment to a location in E, that is greater than 100 feet (for example location D1 or D2) would allow for the aggregate crushing activity, and if greater than 500 feet result in the equipment being exempt from the requirements of PR 403.2, since distance is measured from the perimeter of the activity/equipment, and not the perimeter of the area E. In this hypothetical example the officially designated recreation area property line is within 500 feet of the aggregate crushing activity/equipment, however the nearest officially designated recreation trail is more than 500 feet (>500) from the aggregate crushing activity/equipment and so this large roadway project is not subject to the requirements of PR 403.2. Note again that while activities/equipment/piles associated with large roadways tend to be near or adjacent to large roadways, it is not the proximity of the large roadway to a receptor but rather the proximity of the activity/equipment/pile associated with the large roadway to the area of public exposure that is the distance of applicability for rule purposes.



In **Hypothetical Example 2**, two residences (I and II) are potentially located near a large roadway (as defined in PR 403.2 and shown here as a black road with a white dashed median and rail guards/sound walls on either side of the road). Typical residences are homes/dwellings and include single family homes, condominiums and other common interest developments and also apartments which are defined as sensitive receptors in PR 403.2. In this example, aggregate crushing activity is being conducted with crushing equipment, located at L, near the large roadway. The aggregate crushing activity/equipment is both adjacent (directly next) to and associated with the large roadway so that this project qualifies as a large roadway project, which may be subject to the applicable requirements of PR 403.2. Area E, shown in Example 2 as a wavy double line, encompasses the total area of the project on which the operator/contractor has the authority to carry out crushing and other large roadway activities, site/operate equipment, or establish material piles. Residence I, in area A and Residence II in area C are within the radii of 100 and 1,000 feet, respectively from the perimeter of the crushing equipment location. In Example 2, barring an emergency situation, aggregate crushing activities could not be conducted in area A since residence I is less than 100 feet from the crushing activity/equipment. However, if residence I was not located in area A, but at the location shown for residence II in area C, aggregate crushing activities could be conducted at location L provided that the activity/equipment is in compliance with all applicable requirements of PR 403.2. If the activity/equipment/pile is located further than 1,000 feet from either residence I or II, for example at D3 or D4 in area E, the requirements of PR 403.2 would not be applicable. These prohibitions are also applicable to material piles as defined in the PR 403.2. Note that for the purposes of PR 403.2 the applicable distance is measured from

the perimeter of the activity/equipment location to the property line of the sensitive receptor (in this example the home/dwelling). Therefore, a home with a large setback from the curb or property line (e.g., on an oversized lot) may still be within a distance that requires compliance with the provisions of PR 403.2. Conversely, locating the aggregate crushing equipment to a location in E, that is greater than 100 feet (for example location D1 or D2) would allow for the aggregate crushing activity, and if greater than 1,000 feet would exempt the activity/equipment from the requirements of PR 403.2, since distance is measured from the perimeter of the activity/equipment, and not the perimeter of the area E. Note again that while activities/equipment/piles associated with large roadways tend to be near or adjacent to large roadways, it is not the proximity of the large roadway to a receptor but rather the proximity of the activity/equipment/pile associated with the large roadway that is the distance of interest for rule purposes

APPENDIX II – CITY OF SAN BERNARDINO
RESOLUTION NO. 2020-265

Resolution No. 2020-265

RESOLUTION NO. 2020-265

**RESOLUTION OF THE MAYOR AND CITY COUNCIL OF
THE CITY OF SAN BERNARDINO, CALIFORNIA,
ESTABLISHING GUIDANCE RELATING TO THE
ISSUANCE OF TEMPORARY USE PERMITS ALLOWING
ON-SITE AND OFF-SITE CONTRACTORS'
CONSTRUCTION YARDS FOR APPROVED
DEVELOPMENT PROJECTS**

WHEREAS, in accordance with Chapter 19.70 of the San Bernardino Municipal Code (“SBMC”), the Director of Community and Economic Development is authorized to permit certain short-term activities through the issuance of a Temporary Use Permit (“TUP”); and

WHEREAS, SBMC section 19.70.020 (2), specifically permits the issuance of a TUP for “on- and off-site contractors’ construction yards in conjunction with an approved development project”; and

WHEREAS, pursuant to SBMC section 19.70.035 (B), such construction yards can “be operated only in conjunction with an approved building permit” and must “be removed immediately upon completion of the construction project”; and

WHEREAS, in recent weeks, the issuance of TUP 20-033 permitting the operation of such a yard at 6920 Palm Avenue in connection with Tentative Tract Map 16794 for the purposes of stock piling materials raised significant concerns among community members; and

WHEREAS, the concerns related to the hauling, stock piling, and eventual plan to grind materials at the site, which were occurring prior to the issuance of a grading permit; and

WHEREAS, while City staff established conditions for the TUP to protect the public interest (including hours of operation, covering requirements, and compliance with permit requirements such as for hauling and storm water), the need for additional guidance to clarify the purpose of SBMC section 19.70.020 (2) is clear.

BE IT RESOLVED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF SAN BERNARDINO AS FOLLOWS:

SECTION 1. The above recitals are true and correct and are incorporated herein by this reference.

SECTION 2. In order to provide guidance related to the issuance of temporary use permits under SBMC section 19.70.020 (2), the City Council hereby declares and directs staff as follows:

The purpose of SBMC section 19.70.020 (2) was to permit developers to use the site of an approved development project for temporary storage of finished construction materials in the immediate run up to and during the construction of the development project. It was not intended

Resolution No. 2020-265

October 21, 2020

Page 1 of 4

to permit the storage of construction materials at sites prior to the issuance of permits authorizing construction work to commence, e.g., the grading permit. In addition, it was not intended to permit more intensive temporary uses such as the crushing or grinding of raw materials than would otherwise be permitted in the applicable zone. For example, while the crushing and grinding of raw materials might be appropriate as a temporary use in an industrial or commercial zone, it is incompatible with residentially zoned property.

In light of the foregoing, in response to any future request for a TUP for “on- and off-site contractors’ construction yards in conjunction with an approved development project” under SBMC section 19.70.020 (2), City staff shall abide by the following guidance:

A. Stock piles of building materials shall only be permitted in conjunction with the issuance by the City of a grading permit or building permit.

B. Stock piles of building materials shall consist only of finished materials ready for grading or construction.

C. No TUP may be issued to permit the crushing or grinding of unfinished raw materials such as rock, concrete, or similar at a residentially-zoned site or in any other zone within 1,000 feet of a residentially-zoned property.

D. If a TUP is issued permitting the crushing or grinding of unfinished raw materials such as rock, concrete, or similar, City staff shall condition the TUP in such manner to address the public health, safety, and welfare. Such conditions shall, among others, address dust mitigation, noise mitigation, site security, and compliance with all applicable air quality and water quality standards.

SECTION 3. Staff is hereby directed to prepare a Development Code Amendment to clarify the purpose and requirements for issuance of a TUP under SBMC section 19.70.020 (2) in accordance with the guidance provided by this Resolution.

SECTION 4. Staff shall apply the same standards applicable to a TUP under Section 2 of this Resolution to all grading permits.

SECTION 5. The City Council finds this Resolution is not subject to the California Environmental Quality Act (CEQA) in that the activity is covered by the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment. Where it can be seen with certainty, as in this case, that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA.

SECTION 6. Severability. If any provision of this Resolution or the application thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications, and to this end the provisions of this Resolution are declared to be severable.

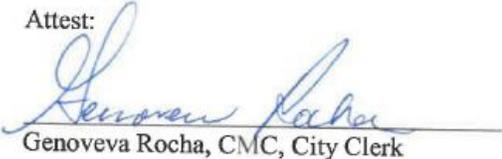
SECTION 7. Effective Date. This Resolution shall become effective immediately.

APPROVED and **ADOPTED** by the City Council and signed by the Mayor and attested by the City Clerk this 21st day of October 2020.



John Valdivia, Mayor
City of San Bernardino

Attest:


Genoveva Rocha, CMC, City Clerk

Approved as to form:

PP.


Sonia Carvalho, City Attorney

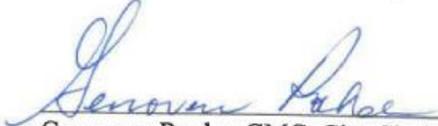
CERTIFICATION

STATE OF CALIFORNIA)
 COUNTY OF SAN BERNARDINO) ss
 CITY OF SAN BERNARDINO)

I, Genoveva Rocha, CMC, City Clerk, hereby certify that the attached is a true copy of Resolution No. 2020-265, adopted at a regular meeting held on the 21st day of October 2020 by the following vote:

<u>Council Members:</u>	<u>AYES</u>	<u>NAYS</u>	<u>ABSTAIN</u>	<u>ABSENT</u>
SANCHEZ	_____	<u> X </u>	_____	_____
IBARRA	<u> X </u>	_____	_____	_____
FIGUEROA	<u> X </u>	_____	_____	_____
SHORETT	_____	<u> X </u>	_____	_____
NICKEL	<u> X </u>	_____	_____	_____
RICHARD	_____	_____	_____	<u> X </u>
MULVIHILL	<u> X </u>	_____	_____	_____

WITNESS my hand and official seal of the City of San Bernardino this 22nd day of October 2020.



 Genoveva Rocha, CMC, City Clerk

APPENDIX III – L.A. METRO GREEN CONSTRUCTION POLICY



Metro

Los Angeles County
Metropolitan Transportation Authority

One Gateway Plaza
Los Angeles, CA 90012-2952

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**EXECUTIVE MANAGEMENT AND AUDIT COMMITTEE
CONSTRUCTION COMMITTEE
JULY 21, 2011**

SUBJECT: GREEN CONSTRUCTION POLICY

ACTION: ADOPT GREEN CONSTRUCTION POLICY

RECOMMENDATION

Adopt the Los Angeles County Metropolitan Transportation Authority (LACMTA) Green Construction Policy for implementation on construction projects conducted on LACMTA properties and rights-of-way. Phase the implementation of this policy, through a collaborative process, for implementation by other jurisdictions that receive/program LACMTA funding (in whole or in part) for construction projects.

ISSUE

Expediting the LACMTA's Measure R Initiative through the America Fast Forward Program will reduce overall emissions and get people out of their cars and onto transit sooner. However, the potential to create significant harmful emissions from traffic congestion and those associated with construction activities and existing non-mitigated legacy construction equipment usage remains high. This concern is echoed by the US Environmental Protection Agency (USEPA), the South Coast Air Quality Management District (SCAQMD), and various non-profit environmental organizations in the last few months through comment letters to LACMTA's environmental documents, or in public meetings. Specifically, the USEPA and the SCAQMD have recommended through those forums that the LACMTA either implement best management practices or require the use of cleaner on-road and off-road equipment to mitigate particulate matter (PM) and nitrogen oxide (NO_x) compound emissions.

The development and implementation of a Green Construction Policy was advanced in a motion sponsored by Director Richard Katz and approved by the LACMTA Board of Directors on December 9, 2010. An LACMTA Board approved Green Construction Policy will facilitate agency-wide and uniform implementation of cost-effective solutions to this recognized air quality issue.

DISCUSSION

Staff presented a Draft Green Construction Policy during the March 2011 and June 2011 Executive Management and Audit Committee meetings. Additional guidance was given by our Board of Directors during those meetings to ensure the development of a comprehensive policy, consistent with the intent of Director Katz's December 2010 motion; but more importantly considers issues associated with the implementation of such a policy outside of the LACMTA jurisdiction. Additional considerations would include lessons learned from the policies, guidelines, or framework of other jurisdictions within our region specifically those of the Port of Los Angeles, Port of Long Beach, and Los Angeles World Airports (LAWA).

Over the course of four months, staff had conducted separate meetings with various stakeholders that included non-profit environmental organizations, construction contractors, manufacturers of retrofit equipment; as well as representatives of the South Coast Air Quality Management District, Port of Los Angeles, Port of Long Beach, and Los Angeles World Airports. The meetings were designed not only to develop a more comprehensive LACMTA Green Construction Policy but to gain consensus on language and provisions that should be included in the policy. Additional meetings were conducted in June and July to gain input from Metro's Technical Advisory Committee, Metro Streets and Freeways Sub-Committee, Metro Transit Business Advisory Council, Northern Corridor Cities Meeting, Antelope Valley Air Quality Management District, Los Angeles County Department of Public Works, and Small Business Outreach meeting to discuss the policy. After going through this extensive outreach, the Green Construction Policy included in Attachment A is attached for Board consideration. This policy includes a commitment for the immediate adoption of the policy on construction projects conducted on LACMTA properties and rights-of-way. The policy will be phased, through a collaborative process, for implementation by other jurisdictions that receive/program LACMTA funding (in whole or in part) for construction projects.

Staff's recommendation to adopt this LACMTA Green Construction Policy is in line with the clean construction requirements already existing in New York, Illinois (Cook Co.), and Rhode Island (Providence), among others. Locally, the Port of Los Angeles, Port of Long Beach, and LAWA have already incorporated clean construction requirements into their specifications.

From an informal survey of transit agencies nationwide [through the American Public Transportation Association (APTA)], it appears that only a handful of our peers have considered clean/green construction equipment requirements. There appears to be no transit agency at this time that has adopted such a policy. With the adoption of this policy, we will be the industry leader in the APTA community.

FINANCIAL IMPACT

LAWA and Port of Los Angeles staffs have been implementing clean construction requirements in their construction activities. Specifically to LAWA, they have indicated that the cost to implement these requirements in total, including the labor associated with contractor bid costs, an Independent Third Party Monitor, environmental management contractor staff, plus the cost for retrofitting the off-road construction vehicles with diesel emission control systems, is approximately 0.3% of the overall construction costs on one of their \$150 million projects. In LAWA staff's opinion, the costs to do the same level of effort would conservatively be around 0.5% on a typical construction project.

The Contractor or equipment owner (in cases where construction equipment is leased) is responsible for all costs of purchase, installation, and maintenance of retrofit device or any new construction equipment required by the policy. The Contractor shall also be responsible for any compliance costs to be incurred by any of their subcontractors. Finally, no Contractor shall be given a competitive advantage or disadvantage as a result of the policy. Costs for complying with the policy shall not be considered by LACMTA in evaluating bids.

As indicated in the policy, the LACMTA will provide information to the Contractor and their subcontractors in identifying and applying for grants and loans that are available for the greening of existing construction equipment or purchase of new green construction equipment.

ALTERNATIVES CONSIDERED

Rejection of the recommended Board action is inconsistent with the intent of the Board approved motion to develop this policy. Rejection of the staff recommendation is also inconsistent with the provisions of our Board adopted Environmental Policy that specifically commits to specific actions in mitigating environmental and human health impacts, while maintaining sustainable operations.

NEXT STEPS

After the proposed Green Construction Policy is adopted by the LACMTA Board, staff will incorporate the requirements of this policy in all future procurement contracts. It is not retroactive. Staff will encourage Contractors that work on existing construction projects in LACMTA properties or rights-of-way to implement the provisions of this policy to the greatest extent feasible. Staff will develop a collaborative process to phase the implementation of this policy in other jurisdictions that receive/program LACMTA funding (in whole or in part) for construction projects.

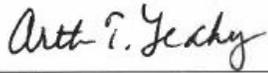
ATTACHMENT

A. LACMTA Green Construction Policy

Prepared by: Cris B. Liban, Environmental Compliance and Services Department
Manager



Krishniah N. Murthy
Executive Director, Project Transit Delivery



Arthur T. Leahy
Chief Executive Officer

LACMTA GREEN CONSTRUCTION POLICY**POLICY STATEMENT**

The Los Angeles County Metropolitan Transportation Authority (LACMTA) will only use greener, less polluting construction equipment and vehicles; and implement best practices to meet or exceed air quality emission standards in all construction projects performed on LACMTA properties and rights-of-way. Phase the implementation of this policy, through a collaborative process, for implementation by other jurisdictions that receive/program LACMTA funding (in whole or in part) for construction projects.

PURPOSE

This policy provides requirements for 1) identifying and mitigating air emission impacts on human health, environment, and climate of on-road and off-road construction equipment and generators used in our construction and development activities; 2) implementing appropriate Best Management Practices (BMP) to complement equipment mitigations; and 3) implementing strategies to ensure compliance with this policy.

This policy is effective and enforceable immediately upon adoption for all new construction projects. This policy is not retroactive. However, for all existing construction projects [i.e., where contracts have already been awarded], LACMTA will encourage all Contractors to implement the provisions of this policy to the greatest extent feasible. The intent of this policy is to reduce harmful air emissions (particularly particulate matter and nitrogen oxides) while minimizing any significant impact to cost and schedule in any existing construction project. Nothing in this policy shall require a retrofit that does not meet California OSHA standards.

COMMITMENTS

The LACMTA is an international leader in implementing environmental and sustainability principles in all of its planning, construction, operations, and procurement activities. The LACMTA commits to the following construction equipment requirements, construction BMPs, and implementation strategies for all of its construction projects performed on LACMTA properties or rights-of-way. The implementation of this policy will be phased, through a collaborative process, for implementation in other jurisdictions that receive/program LACMTA funding (in whole or in part) for construction projects.

CONSTRUCTION EQUIPMENT

Through this Green Construction Policy, the LACMTA commits to ensuring that all of the on-road and off-road equipment used in its construction activities are green and less-polluting as follows:

Construction Equipment (excluding On-Road Equipment)

- 1) Construction equipment shall incorporate, where feasible, emissions-reducing technology such as hybrid drives and specific fuel economy standards.
- 2) Idling shall be restricted to a maximum of 5 minutes, except as provided in the exceptions to the applicable CARB regulations regarding idling.
- 3) Equipment Engine Specifications:
 - a. **Prior to December 31, 2011:** All off-road diesel-powered construction equipment greater than 50 horsepower (hp) shall meet Tier-2 off-road emission standards at a minimum. In addition, all construction equipment greater than 50 hp shall be retrofitted with a CARB-verified Level 3 Diesel Emissions Control Device system (DECS).
 - b. **From January 1, 2012, to December 31, 2014:** All off-road diesel-powered construction equipment greater than 50 hp shall meet Tier-3 off-road emission standards at a minimum. In addition, all construction equipment greater than 50 hp shall be retrofitted with a CARB-verified Level 3 DECS. Any emissions control device used by the Contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.
 - c. **From January 1, 2015 and onwards:** All off-road diesel-powered construction equipment greater than 50 hp shall meet Tier-4 off-road emission standards at a minimum. In addition, if not already supplied with a factory-equipped diesel particulate filter, all construction equipment shall be outfitted with Best Available Control Technology (BACT) devices certified by CARB. Any emissions control device used by the Contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.

On-Road Equipment

- 1) Trucks or equipment hauling material such as debris or any fill material shall be fully covered while operating at, to and from the LACMTA construction project.

- 2) Idling shall be restricted to a maximum of 5 minutes, except as provided in the exceptions to the applicable CARB regulations regarding idling.
- 3) EPA Standards:
 - a) **Prior to December 31, 2013:** All on-road heavy-duty diesel trucks or equipment with a gross vehicle weight rating (GVWR) of 19,500 pounds or greater shall meet or exceed the EPA 2007 on-road emission standards for PM (0.01 g/bhp-hr); or shall be equipped with a CARB verified Level 3 diesel particulate filter.
 - b) **From January 1, 2014 and onwards:** All on-road heavy-duty diesel trucks or equipment with a GVWR of 19,500 pounds or greater shall comply with EPA 2007 on-road emission standards for PM and NO_x (0.01 g/bhp-hr and at least 1.2 g/bhp-hr, respectively).

Generators

Every effort shall be made to utilize grid-based electric power at any construction site, where feasible. Where access to the power grid is not available, on-site generators must:

- 1) Meet a 0.01 gram per brake-horsepower-hour standard for PM, or
- 2) Be equipped with BACT for PM emissions reductions.

Exceptions

These on-road and off-road construction equipment and generator requirements shall apply unless any of the following circumstances exist and the Contractor provides a written finding consistent with project contract requirements that:

- 1) The Contractor intends to meet the requirements of this policy as to a particular vehicle or piece of equipment by leasing or short-term rental, and the Contractor has attempted in good faith and due diligence to lease the vehicle or equipment that would comply with this policy, but that vehicle or equipment is not available for lease or short-term rental within 200 miles of the project site, and the Contractor has submitted documentation to LACMTA showing that the requirements of this Exception provision apply.
- 2) The Contractor has been awarded funding by SCAQMD or another agency that would provide some or all of the cost to retrofit, repower, or purchase a piece of equipment or vehicle, but the funding has not yet been provided due to circumstances beyond the Contractor's control, and the Contractor has attempted in good faith and due diligence to lease or short-term rent the

equipment or vehicle that would comply with this policy, but that equipment or vehicle is not available for lease or short-term rental within 200 miles of the project site, and the Contractor has submitted documentation to LACMTA showing that the requirements of this Exception provision apply.

- 3) Contractor has ordered a piece of equipment or vehicle to be used on the construction project in compliance with this policy at least 60 days before that equipment or vehicle is needed at the project site, but that equipment or vehicle has not yet arrived due to circumstances beyond the Contractor's control, and the Contractor has attempted in good faith and due diligence to lease or short-term rent a piece of equipment or vehicle to meet the requirements of this policy, but that equipment or vehicle is not available for lease or short-term rental within 200 miles of the project, and the Contractor has submitted documentation to LACMTA showing that the requirements of this Exception provision apply.
- 4) Construction-related diesel equipment or vehicle will be used on an LACMTA construction project site for fewer than 10 calendar days per calendar year. The Contractor shall not consecutively use different equipment or vehicles that perform the same or a substantially similar function in an attempt to use this Exception to circumvent the intent of this policy.

In any of the situations described above, the Contractor shall provide the next cleanest piece of equipment or vehicle as provided by the step down schedules in Table A for Off-Road Equipment and Table B for On-Road Equipment.

Table A. Off-Road Compliance Step Down Schedule*		
Compliance Alternative	Engine Standard	CARB-verified DECS (VDECS)
1	Tier 4	N/A**
2	Tier 3	Level 3
3	Tier 2	Level 3
4	Tier 1	Level 3
5	Tier 2	Level 2
6	Tier 2	Level 1
7	Tier 2	Uncontrolled
8	Tier 1	Level 2

Equipment less than Tier 1, Level 2 shall not be permitted.

Table B. On-Road Compliance Step Down Schedule*

Compliance Alternative	Engine Model Year	CARB-Verified DECS (VDECS)
1	2010	N/A
2	2007	N/A**
3	2004	Level 3
4	1998	Level 3
5	2004	Uncontrolled
6	1998	Uncontrolled

Equipment with a model year earlier than Model Year 1998 shall not be permitted.

***How to use Table A and Table B:** For example, if Compliance Alternative #3 is required by this policy but a Contractor cannot obtain an off-road vehicle that meets the Tier 2 engine standard that is equipped with a Level 3 DECS (Compliance Alternative #3 in Table A) and meets one of the above exceptions, then the Contractor shall use a vehicle that meets the next compliance alternative (Compliance Alternative #4) which is a Tier 1 engine standard equipped with a Level 3 DECS. Should the Contractor not be able to supply a vehicle with a Tier 1 engine equipped with a Level 3 DECS in accordance with Compliance Alternative #4 and has satisfied the requirements of one of the above exceptions as to the Contractor's ability to obtain a vehicle meeting Compliance Alternative #4, the Contractor shall then supply a vehicle meeting the next compliance alternative (Compliance Alternative #5), and so on. If the Contractor is proposing an exemption for on-road equipment, the step down schedule in Table B should be used. A Contractor must demonstrate that it has satisfied one of the exceptions listed in the selected Compliance Alternative # before it can use a subsequent Compliance Alternative. The goal is to ensure that the Contractor has exercised due diligence in supplying the cleanest fleet available.

****Tier 4 or 2007 Model Year equipment not already supplied with a factory-equipped diesel particulate filter shall be outfitted with Level 3 VDECS.**

BEST MANAGEMENT PRACTICES

In addition to equipment requirements, the Best Management Practices (BMPs) listed below are imposed on all construction projects that performed on LACMTA properties and rights-of-way.

BMPs shall include, at a minimum:

- 1) Use of diesel particulate traps or best available control technology, as feasible;
- 2) Maintain equipment according to manufacturers' specifications;
- 3) Restrict idling of construction equipment and on-road heavy-duty trucks to a maximum of 5 minutes when not in use, except as provided in the exceptions to the applicable CARB regulations regarding idling for off-road and on-road equipment;

- 4) Maintain a buffer zone that is a minimum of 1,000 feet between truck traffic and sensitive receptors, where feasible;
- 5) Where applicable and feasible, work with local jurisdictions to improve traffic flow by signal synchronization;
- 6) If feasible and as allowed by local jurisdictions, configure construction parking to minimize traffic interference;
- 7) Enforce truck parking restrictions, where applicable;
- 8) Prepare haul routes that conform to local requirements to minimize traversing through congested streets or near sensitive receptor areas;
- 9) Provide dedicated turn lanes for movement of construction trucks and equipment on- and off-site, as feasible;
- 10) Schedule construction activities that affect traffic flow on the arterial system to off-peak hours to the extent practicable;
- 11) Use electric power in lieu of diesel power where available; and
- 12) Traffic speeds on all unpaved roads to be 15 mph or less.

IMPLEMENTATION

The following shall be incorporated to ensure proper compliance with this policy.

Notification

Contractors of construction activities that are located within 1,000 feet of sensitive receptors shall notify each of these sites in writing at least 30 days before construction activities begin. Notification shall include the name of the project, a description of the location, the acreage of the construction site, the type and quantity of equipment and vehicles that will be operating at or near the site, the start date and reasonably anticipated duration of the construction, and contact information for a LACMTA community liaison who can answer any questions.

Enforcement

Each solicitation by LACMTA for a construction project contract and each contract entered into as a result of such solicitation shall include provisions authorizing enforcement of the requirements of this policy.

Violations of any of the requirements of this policy shall be deemed to be a material breach of the Contractor agreement, and LACMTA shall have available

all remedies including warnings, fines, requirement to remove equipment, institution of special assessments, and termination of contract.

LACMTA shall conduct inspection of construction sites and affected off-road and on-road equipment and generator as well as compliance with air quality rules. These inspections will be conducted as part of existing LACMTA staff functions and without advance notice to the Contractor.

Records

Prior to Notice to Proceed (NTP) to commence construction project and to be verified afterwards consistent with project contract requirements and through enforcement provisions above, the Contractor shall submit to LACMTA the following information for all construction equipment to be used in all construction projects on LACMTA properties or rights-of-way:

- 1) A certified statement that all construction equipment used conform to the requirements specified above;
- 2) A list of all the equipment and vehicles [i.e., for off-road equipment, include the CARB-issued Equipment Identification Number (EIN)] to be used;
- 3) A copy of each Contractor's certified EPA rating and applicable paperwork issued either by CARB, SCAQMD and any other jurisdiction that has oversight over the equipment; and
- 4) The name, business address, e-mail address, and phone number for the individual person responsible for each of the pieces of equipment and vehicles subject to this policy.

If an unanticipated need for the use of equipment or a vehicle arises after construction has commenced or after the Contractor has submitted the information required by the above subsections (1)–(4), the Contractor shall provide such information for the unanticipated equipment or vehicle within 14 days after an identified emergency or when the need arises and prior to the use of the equipment or vehicle.

Quantification and Reporting of Emission Reductions

No later than 18 months after the date the LACMTA Board of Directors adopts this policy, and annually thereafter, LACMTA shall develop a summary report presented to the Board and available on the LACMTA website which shall include:

- 1) A description of the implementation of this policy;
- 2) Quantification of the resulting PM and NO_x emission reductions;
- 3) A list and description of monitoring and enforcement actions;
- 4) A description of other appropriate measures of progress;
- 5) A description of the outreach of this policy in other jurisdictions that receive/program LACMTA funding (in whole or in part) for construction projects;
- 6) A description of implementation problems encountered and opportunities for additional reductions in emissions; and
- 7) Recommendations for any statutory or policy changes.

Implementation and Compliance Costs

The Contractor or equipment or vehicle owner (in cases where the equipment or vehicle is leased) is responsible for all costs of purchase, installation, and maintenance of retrofit devices or any new construction equipment required by this policy. The Contractor shall also be responsible for any compliance costs to be incurred by any of their subcontractors.

The LACMTA will provide information to the Contractor and their subcontractors to aid in the identification of and application for grants and loans that are available for the retrofit or re-power of existing construction equipment or purchase of new green construction equipment.

No Contractor shall be given a competitive advantage or disadvantage as a result of this policy. Costs for complying with this policy is a part of the Contractor's bid and will not have any consideration in evaluating bids.

DEFINITIONS

Best Available Control Technology (BACT) is defined as technology, verified by CARB, for an off-road vehicle that achieves reductions in PM emissions at the highest applicable classification level for diesel emission control strategies. A summary of CARB-verified diesel emission control strategies may be found at <http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm>. Where this policy requires BACT, this requirement can be satisfied by a factory installed equivalent device, such as a diesel particulate filter.

Classification Levels are defined as levels of diesel emission control retrofit technologies, with Level 3 being the highest classification level, and the only level acceptable for a retrofit under this policy, except as provided for in this policy:

- Level 3 is defined as retrofit technology that reduces diesel PM emissions by 85 percent or greater or reduces engine emissions to less than or equal to 0.01 grams diesel PM per brake horsepower-hour;
- Level 2 is defined as retrofit technology that reduces diesel PM emissions by between 50 and 84 percent;
- Level 1 is defined as retrofit technology that reduces diesel PM emissions by between 25 and 49 percent.

Construction Project is defined as a project that is performed on LACMTA properties or rights-of-way. If the project is performed in collaboration with another agency or agencies or parties, including where the other agency or agencies or parties have the lead responsibility for construction, LACMTA shall discuss with those agencies or parties the incorporation of the provisions of this Green Construction policy into all agreements, including Memoranda of Understanding, between LACMTA and the other agency or agencies or parties. Until such time, provisions of this policy shall only be used as a guideline in performing construction projects that receive/program LACMTA funds in whole or in part.

Sensitive Receptor Site is defined as a site that is within the definition provided in the CARB Air Quality and Land Use Planning Guidelines (2005) (www.arb.ca.gov/ch/landuse.htm) such as schools, daycares, playgrounds, and hospitals.

APPENDIX IV
SAMPLE RULE 403.2 - LARGE ROADWAY PROJECT NOTIFICATION
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
 21865 Copley Drive, Diamond Bar, CA 91765

Please Print or Type

Company or Agency Name:		Phone Number:	
Address:			
City:		State:	Zip:
List All Responsible Person of Organization (including Dust Control Supervisor):			
Name:	Title:	Phone Number	Email Address
Project Address (and/or coordinates, please attach location map):			
City:		State:	Zip:
Estimated Duration of the project:			
Anticipated Start Date:			
Anticipated Completion Date:			
List of Permitted Aggregate Crushing and Grinding Equipment Subject to California Air Resources Board Portable Equipment Registration Program:			
In accordance with paragraph (e)(2) of Rule 403.2, I will ensure that the actions specified in Table 1 will be implemented on-site for each applicable fugitive dust source type and that records are maintained in accordance with Rule 403.2, subparagraph (e). Further, I hereby certify that all information contained herein is true and correct.			
SIGNATURE OF RESPONSIBLE MEMBER OF ORGANIZATION	TITLE	DATE	

APPENDIX V – SAMPLE RULE 403.2 RECORDKEEPING FORM

FUGITIVE DUST CONTROL DAILY RECORDS (South Coast AQMD Rule 403.2 Control Measures) Month: _____		Instructions: 1. Place a check in the box for control measures taken or a number for the frequency the control measures was used. 2. Operator Should initial daily.																															
Fugitive Dust Source Category	Control Measures	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Crushing And Grinding; or Aggregate Operations	Stabilize surfaces prior to operation of any crushing/grinding equipment and associated equipment (such as construction vehicles, bulldozers, cranes and backhoes)																																
	Stabilize aggregate material piles after crushing and grinding by applying a dust suppressant to prevent dust plumes																																
Earth Moving Activities; Construction/Demolition; or; Disturbed Surface Area	Apply Dust Suppressant as necessary to maintain a stabilized surface and prevent visible emissions																																
Dust from Construction Vehicles (All controls)	Apply Dust Suppressant as necessary to prevent visible emissions during vehicle operation																																
	Limit vehicle speed to 15 miles per hour on roadways																																
	Cover frequently traveled unpaved roads and unpaved parking area 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																																
	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																																
Material Piles (Any combination of the required controls to ensure control)	Apply dust suppressant as necessary, but no less than twice per hour to maintain a stabilized surface and prevent visible emissions																																
	Install coverings																																
	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																																
OPERATORS INITIALS:																																	
List of associated permitted and unpermitted powered equipment with potential to generate dust:																																	