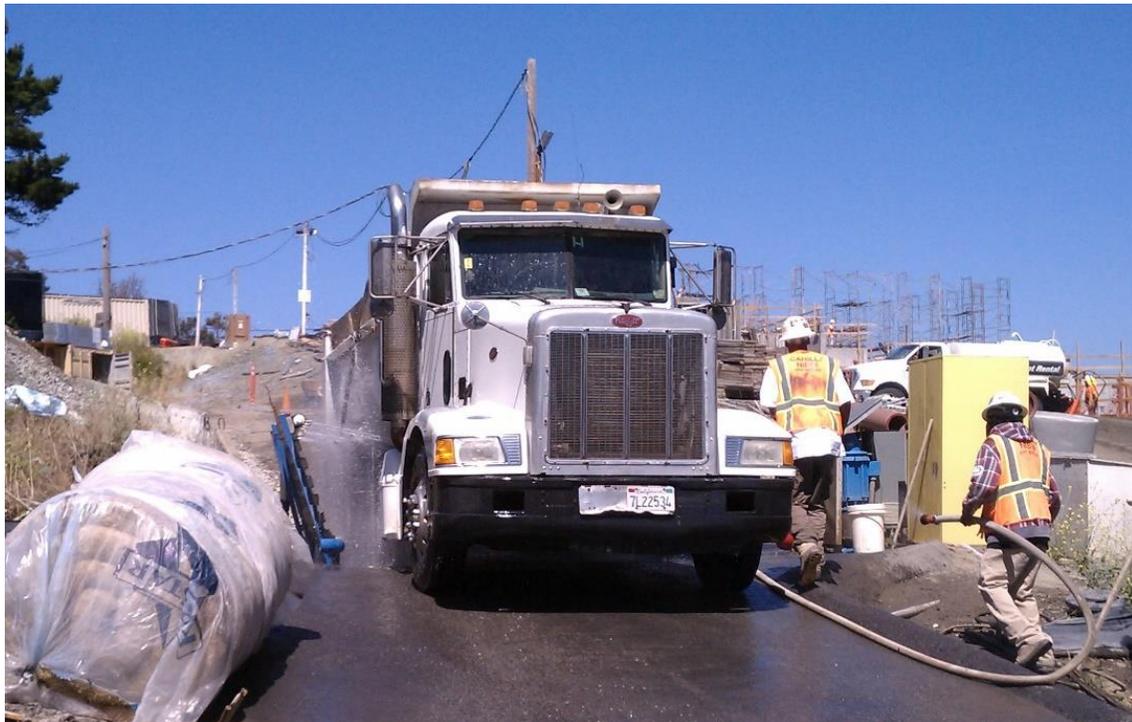




BAY AREA  
AIR QUALITY  
MANAGEMENT  
DISTRICT

## **STAFF REPORT – PARTICULATE MATTER**

### **New Regulation 6, Rule 6: Prohibition of Trackout**



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# STAFF REPORT

## Regulation 6, Rule 6: Prohibition of Trackout

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## I. EXECUTIVE SUMMARY

The Bay Area Air Quality Management District (Air District) is proposing a new regulation to control particulate matter, Regulation 6, Particulate Matter, Rule 6: Prohibition of Trackout (Rule 6-6). This workshop report provides background information and rationale for new Rule 6-6. This staff report is intended to provide members of the public with a description of the new regulation in advance of a Public Hearing the Air District to be held in Spring 2018.

The Air District is proposing new Rule 6-6 as part of a suite of proposals aimed at addressing particulate matter emissions. Small particles cause or contribute to a wide variety of serious health problems, including asthma, bronchitis, cardio-vascular diseases, and cancer. The Air District has committed to reducing particulate matter levels to achieve significant health benefits. The new rule will help reduce emissions of particulate matter in the Bay Area in a feasible and cost-effective manner, thereby improving public health and air quality throughout the region. The suite of proposals includes (i) amendments to Rule 6-1 to strengthen that rule's particulate matter emissions limits applicable to general industrial operations; (ii) this new Rule 6-6 addressing trackout, and (iii) a new Regulation 6 providing common definitions and test methods that will apply generally to all the Rules in Regulation 6. More information about these related proposals can be found in the staff reports for each of the proposals, which are being published concurrently with this report.

Proposed new Rule 6-6 focuses on road dust, a large source of fine particulates. Road dust is composed of small particles from erosion of the road's surface and fine particles from vehicles driving over and pulverizing any solid materials that may have been deposited on the road. Tire wear and brake pad wear are also sources of particulates found near roadways. Proposed new Rule 6-6 addresses mud and dirt that can be "tracked out" onto a paved road from a construction site, quarry, landfill or other disturbed surface. This material – referred to as "trackout" – contributes to particulate pollution because vehicle traffic on the paved road will pulverize the mud and dirt into smaller particles (known as silt), and turbulence from the vehicles entrain the silt into the air. Proposed new Rule 6-6 addresses this problem by prohibiting trackout of mud and dirt onto paved roadways, and will focus Air District Compliance and Enforcement resources on the large sites with the greatest potential for significant trackout. Cities and counties can continue to monitor and enforce prohibition of trackout at smaller sites.

Staff estimates proposed new Rule 6-6 will affect about 150 – 250 large bulk material, large construction and large disturbed surface sites. Staff estimates there are currently an additional 1,000 smaller sites. The large bulk material sites consist of approximately 10 quarries, 10 asphalt plants, and 25 other miscellaneous bulk solids including coke and coal handling facilities), large construction sites (150 – 200 construction sites at any given time), and large disturbed surface sites (approximately 15 landfills and 10 other unpaved equipment and material storage sites) in the Bay Area. Each of these facilities is currently required to meet project CEQA requirements, and/or a Regional Water Quality Control Board requirement to control trackout onto paved roads, but enforcement appears to be spotty. Staff found many locations where significant mud and dirt had been tracked out from the exits of these sites. Staff believes enhanced enforcement by the Air District staff will improve emissions performance.

Expected emission reductions from proposed new Rule 6-6 are 2.69 ton per day (tpd) of total suspended particulates (TSP), 1.23 tpd of PM<sub>10</sub>, and 0.18 tpd of PM<sub>2.5</sub>. Costs are expected to be minimal since most sites currently control trackout to some degree. Staff observes that additional capital equipment may be needed at a few sites, but most improvement will come through management attention to monitoring and controlling trackout.

This staff report describes proposed new Rule 6-6. Following this Executive Summary, Section II, Background refers to the parallel sections in the Regulation 6 staff report. Section III, Proposed Requirements describes the specific requirements and emission limits, and rationale supporting each. Section IV, Emissions and Emission Reductions describe the expected emissions impacts. Section V provides estimated costs for implementation of Rule 6-6, assesses cost effectiveness of the emission reductions, the Socioeconomic Impacts on the affected industries, and implementation impacts for the Air District. Section VI provides a discussion how this regulation fits into the existing structure of state and federal regulatory requirements. Section VII summarizes the environmental impacts, and references the California Environmental Quality Act analysis conducted for the Rule 6-6, in combination with new Regulation 6, and amendments to Regulation 6, Rule 1: General Requirements. A Negative Declaration is proposed as a result of the CEQA review. Section VIII describes the rule development and public participation process used to ensure all affected and interested parties participate in this project. Section IX summarizes the findings needed to adopt a new regulation, and recommends Board approval of Rule 6-6, and the Negative Declaration from the CEQA analysis. References and Appendices are included at the end of the staff report.

Staff recommends the Board of Directors adopt new Regulation 6, Rule 6: Prohibition of Trackout, and approve the associated CEQA Analysis Negative Declarations at the Public Hearing scheduled for Spring 2018.

The Air District invites all interested members of the public to review proposed new Regulation 6, Rule 6 and this Staff Report, provide comments on this proposal, and participate in the Public Hearing. Air District staff will accept written comments, will respond to all comments received and will present the final proposals to the Air District's Board of Directors for their consideration. For further information in advance of the Public Hearing, please contact Guy Gimlen, Principal Air Quality Engineer, (415) 749-4734, [ggimlen@baaqmd.gov](mailto:ggimlen@baaqmd.gov).

## II. BACKGROUND

Refer to the Background section of the workshop report for new draft Regulation 6, Section A for the broad review of all particulate matter sources here in the Bay Area.

### A. Industry / Source Description

There is potential for trackout at any location where the ground has been disturbed, and vehicle (primarily truck) traffic can collect dirt or solids from the disturbed surfaces, unpaved roads or construction areas. Staff finds that bulk material storage and handling facilities, construction sites, and any area with open disturbed surface is vulnerable to creating trackout.

#### 1. Industry / Facility Operations

Staff recommends a new rule to prohibit trackout of mud and dirt onto adjacent public roadways, where subsequent traffic can pulverize the dirt into silt, and turbulence from the vehicle entrains the silt into the air. This material is one source of road dust, and can readily be controlled.

Trackout is a concern at bulk material storage sites, construction sites, and areas where the normal surface of the ground has been disturbed, including landfills. Water is often used to control dust. Mud can form at these locations, and accumulate on the bottoms of vehicles and vehicle tires. When vehicles leave the work site, they can track mud out onto a public roadway. Over the next approximately 50 feet of the road, the mud falls off the vehicles and tires. As the mud dries, the dirt remains on the paved road where subsequent traffic can pulverize the dirt into silt, and the turbulence from the passing vehicles entrains the silt into the air. This mud/residual dirt or any other kinds of solid material is called trackout. Trackout can be a significant source of particulate matter with an aerodynamic diameter of 2.5 microns ( $PM_{2.5}$ ), and can be controlled cost effectively by knocking or washing the mud off the vehicles before they leave the site.

#### 2. Pollutants and Emissions Sources

The pollutants of concern are any dirt, mud or other industrial solid material that can collect on vehicle tires and under-carriage, then subsequently fall off the vehicle onto a paved public roadway. These solids can then be pulverized by traffic, creating silt that is easily entrained into the air by the passing vehicles. The amount of particulate matter with an aerodynamic diameter of ten microns ( $PM_{10}$ ) and  $PM_{2.5}$  in trackout can vary widely depending on the solid, and depending on how long the solid has been out on the road. Ultimately all the solids are pulverized and entrained into the air, falling onto nearby areas or staying suspended in the air for a substantial period. Studies of California freeways have shown that particles larger than 2.5 microns tend to fall back to earth within 1,000 feet of the road, while the particles smaller than 2.5 microns ( $PM_{2.5}$ ), stay suspended in the air and become part of the background level of PM.

Emission sources include any site that has vehicle traffic over unpaved roads and disturbed surfaces. Rock quarries, asphalt plants, construction sites, unpaved equipment storage yards, landfills, and any industrial facility that handles solids has the potential to create trackout.

#### 3. Current Emissions Control Technology and Methods

Current emission controls for trackout include systems called grizzlies or rumble strips to shake the dirt and mud from the vehicles, and spread the tire treads so that the dirt and mud can fall from the tires. In general, grizzlies work well. Staff observed the largest concern is keeping the receiving area below the grizzly cleaned out, so that the dirt and mud can fall free from the tires.

Staff observed several locations where the area below the grizzly was completely full of dirt and mud, rendering the grizzly ineffective.

A second method to control trackout is a vehicle wash station, where the vehicle is sprayed or rinsed off before it leaves the site. Truck wash stations are generally used for large facilities with significant truck traffic. These systems are very effective. Staff observed these truck wash stations at several locations, and they appeared to work well.

## **B. Regulatory History**

Refer to the Background section of the staff report for proposed new Regulation 6, Section B for the broad review of the regulatory history.

## **C. Technical Review of Control Technologies**

Refer to the Background section of the staff report for proposed new Regulation 6, Section C for the broad review of control technologies. There are no new innovative technologies used for controlling trackout. Water mist rather than water sprays may be useful in controlling dust in some instances, but generally the gravel, water (or other dust suppressants) currently used to stabilize unpaved roads and disturbed surfaces will continue to be required to prevent trackout.

# **III. PROPOSED AMENDMENTS**

Air District staff is proposing new Rule 6-6 that prohibits trackout onto paved public roadways and, thereby, prevent visible fugitive dust emissions associated with such trackout. The principal elements of this proposal are to:

- Prohibit trackout onto paved roads. Limit any trackout at any exit from a site to less than cumulative 25 linear feet.
- Cleanup any excessive trackout that creates fugitive dust visible emissions within 4 hours.
- At the end of the workday, there should be no more than one quart of either wet or dry trackout at any exit from a site.
- Cleanup of trackout must be conducted to minimize any fugitive dust so that any fugitive dust does not exceed 20 percent opacity for more than three minutes within any 60-minute period.

Staff proposes Rule 6-6 become effective July 1, 2019. This provides more than enough time from adoption to improve facilities, management emphasis and training. All large facilities should already be complying with these requirements through their Storm Water Pollution Prevention Plans (SWPPP).

## **A. Purpose**

The purpose of this proposed rule is to control a significant source of road dust: trackout of dirt, mud and industrial solids onto paved public roads where the solids can become pulverized, and entrained into the air as particulate matter.

## **B. Applicability**

The proposed rule applies to bulk material sites, construction sites, and any facilities with disturbed surfaces (including landfills) where the total land area covered by bulk material handling operations, construction activities and/or disturbed surfaces at the site are one acre or larger. These large facilities tend to have substantial truck and vehicle traffic, creating the opportunity to track dirt, mud or other industrial solids out onto adjoining paved public roadways.

## **C. Exemptions**

Exemptions are provided for two specific sources: metal recycling and shredding operations that are subject to the Regulation 6, Rule 4: Metal Recycling and Shredding Operations; and portland cement manufacturing that are currently subject to the provisions of Regulation 9, Rule 13: Nitrogen Oxides, Particulate Matter, and Toxic Air Contaminants from Portland Cement Manufacturing.

## **D. Major Definitions**

The definitions in proposed new Regulation 6 apply to Rule 6-6.

“Bulk material” is defined as any unpackaged sand, soil, gravel, aggregate, solid construction material, solid industrial chemical or other unpackaged solids less than two inches in length or diameter.

A “bulk material site” is a site that stores or sells bulk materials with one or more stockpiles of bulk material where the stockpile greater than five feet high or has a footprint greater than 100 square feet.

A “construction site” is defined as any location where buildings, structures or improvements are being constructed, maintained, altered, remodeled, expanded or demolished. These sites include all contiguous and adjacent areas where related activities can take place.

A “disturbed surface site” is any land that has been physically moved, uncovered, destabilized, or otherwise modified from its natural conditions, making the surface subject to wind erosion, vehicle traffic or mechanical activities that generate fugitive dust.

A “large bulk material site,” “large construction site,” and “large disturbed surface site” are any site where the total land area of the site covered by bulk material handling operations, construction activities and/or disturbed surfaces at the site is greater than one acre.

“Trackout” is solid material from the site that adheres or agglomerates on the exterior of a motor vehicle (including tires), then subsequently falls onto a paved public roadway. This prohibition of trackout applies to all vehicles that exit the site onto a public roadway, and have the potential to create trackout.

## **E. Emission Limits**

The limit for trackout is set in terms of the quantity of material that is allowable at the exit from a site. The intention is to allow a limited amount of trackout during the workday when active operations occur, but require cleanup by the end of the workday. If the amount of trackout becomes excessive during the workday, defined as more than a cumulative 25 linear feet (the length of visible material from both tire tracks), and the material is creating fugitive dust visible emissions, then the material needs to be cleaned up, i.e. not allowed to continue to lay on the roadway for the remainder of the workday. An example of excessive trackout is a set of two tire tracks leaving a site with 15 feet of visible material (two tracks X 15 feet = cumulative 30 feet).

Monitoring the site’s exits for trackout is required during the middle of the workday, and near the end of each workday. Cleanup of residual trackout is required at the end of the workday. Excessive residual trackout is any volume of material exceeding the volume of one quart (approximately 2.5 pounds of dry material, or 3.75 pounds of wet material). Recordkeeping is required to ensure that a facility holds itself accountable for meeting the monitoring and cleanup requirements.

Staff received questions about a method for measuring residual trackout. Staff offers the following guidance for collecting and measuring any residual trackout that remains on the paved public roadway (and paved shoulder of the paved public roadway) after cleanup:

1. Conduct cleanup of any trackout at the end of the workday using methods that best fit the specific circumstances. Clean up the paved shoulder and as much of the paved public roadway as safely possible given road and traffic conditions.
2. Check for residual trackout as follows:
  - a. Use a whisk broom, standard broom, barn broom or push broom to manually sweep any visible residual trackout from the surface of the paved public roadway shoulder, and from as much of the paved public roadway as safely possible given road and traffic conditions;
  - b. No visible mud, dirt, silt or dust should remain after sweeping. Mud, dirt, silt or dust may remain in the surface cracks of the paved shoulder and paved roadway;
  - c. Collect the residual trackout in an industrial size dust pan, and pour the residual trackout from the dust pan into a 1 quart can;
  - d. If the residual trackout fits within the 1 quart can, cleanup is complete;
  - e. If the residual trackout exceeds the capacity of the 1 quart can, return to Step 1.

Each site is expected to control dust during cleanup activities to the extent possible so fugitive dust does not exceed 20 percent opacity for more than three minutes in any 60-minute period. Fugitive dust control measures are provided in the Staff Report for Regulation 6, Attachment 1-5.

## **F. Administrative Requirements**

There are no administrative requirements proposed for this rule.

## **G. Monitoring and Records**

Monitoring the conditions for potential trackout is required at twice each workday at the time when the potential for trackout is greatest. Any excessive trackout that creates fugitive dust must be cleaned up. All trackout must be cleaned up at the end of each workday. Records are required to document the active exit locations monitored each workday, and any occasion where excessive trackout is found and cleaned up. Records may be kept in electronic, paper hard copy or log-book format. The facility must retain the records for at least two years, and make them available to the APCO upon request.

## **H. Manual of Procedures**

No additions or amendments to Compliance & Enforcement's MOP Vol. 1 are required. The procedure to assess excessive trackout includes measuring the cumulative linear feet of trackout, or the cumulative cross-sectional area of trackout. The procedure to assess the adequacy of cleanup is to ask the site to cleanup or sweep the exit area. The volume of trackout exceeds the standard if the material will not fit into a one-quart paint can.

## **I. Comparative Analysis**

Proposed Rule 6-6: Prohibition of Trackout is analogous and consistent with South Coast Air Quality Management District Rule 403 and Rule 1158, and San Joaquin Valley Unified Air Pollution Control District Rule 8011 and Rule 8041. Rule 6-6 is also consistent with state water district SWPPP requirements that address fugitive dust from wind erosion and prohibition of trackout.

Proposed Rule 6-6 is no more stringent than the requirements included in SWPPP, but staff believes Air District enforcement personnel will be more effective in enforcing these requirements consistently throughout the Bay Area.

## IV. EMISSIONS and EMISSIONS REDUCTIONS

Table IV-1 summarizes the estimated PM emission reductions anticipated from proposed new Rule 6-6, both in absolute terms and as a percentage of PM emissions within the Bay Area.

**Table VI-1: Estimated Emissions Reductions from Proposed New Rule 6-6:**

<b>Source Categories</b>	<b>TSP tons per day</b>	<b>PM<sub>10</sub> tons per day</b>	<b>PM<sub>2.5</sub> tons per day</b>
Estimated Road Dust Reductions	2.69	1.23	0.18
% Reduction from Local Roads Category	12.5%	12.5%	12.5%
% Reduction from Road Dust Category	4.5%	4.5%	4.5%
% Reduction from Total PM Emissions	1.5%	1.2%	0.4%

Staff estimates that approximately 50 percent of current local road dust comes from trackout, with the remainder from spills, erosion, and degradation of the roads themselves. Proposed new Rule 6-6 requires large bulk material sites, large construction sites, and large disturbed surface sites to take steps to monitor and prevent trackout onto paved roadways, as outlined above. Staff estimates that very little trackout occurs from small bulk material sites, small construction sites, and small disturbed surface sites simply because they are small with very little vehicle traffic in and out. Staff has estimated emission reductions based on the large sites, with area greater than one acre.

Trackout prevention is currently required as part of a large site’s SWPPP. Costs for compliance with new Rule 6-6 are (or should be) negligible if the facility is in compliance with SWPPP. However, staff estimates approximately one-third of sites are currently marginal or inadequate in their compliance with trackout requirements. Staff estimates that specific limits on trackout, monitoring and cleanup requirements will reduce PM emissions from the existing one-third marginal performers by approximately 25 percent. Twenty-five percent reduction in emissions from 50 percent of the road dust from local roads will result in emission reductions of 12.5 percent. Staff estimates a total reduction of 2.69 tpd of TSP, 1.23 tpd PM<sub>10</sub>, and 0.18 tpd PM<sub>2.5</sub>.

## V. ECONOMIC IMPACTS

### Trackout Prevention

Trackout at small bulk material sites, construction sites, and disturbed surface sites can be limited by careful use of water to control fugitive dust, and by limiting vehicle traffic to paved or stabilized roads. Any trackout that does occur can be cleaned up by a cleanup crew using hand brooms and shovels or dust pans. If small sites are not already doing this to meet the local trackout control ordinance, the costs for this cleanup is very low and can likely be incorporated into the duties of the existing workforce.

Trackout at large sites can be prevented by using “grizzly” bars or a “rumble grate” system. A grizzly system can be installed for approximately \$10,000, with monthly cleaning required to provide an open catch basin below the grizzly for mud and dirt to fall into and away from the vehicle tires. Most large sites already have a grizzly system or a truck wash station. Annual costs

of operating a grizzly system are estimated to be \$3,000 per year.<sup>1</sup> Estimated dust prevention from a grizzly system is six tpy.<sup>2</sup> Staff estimates that 50 percent of the dust is PM<sub>10</sub>, and 10 percent of the dust is PM<sub>2.5</sub>. Note – grizzly system effectiveness is very dependent on keeping the mud receiving area below the grizzly bars clean. Staff observed several grizzly systems that were no longer effective because the mud receiving catch basins were full. Staff estimates improved grizzly bar systems, or better facilities to remove the mud that is collected will be required at 100 facilities, costing at most \$10,000 each in capital, totaling \$1,000,000 in capital, and \$300,000 per year in operating costs.

Truck wash stations are very effective at preventing trackout, and typically cost from \$100,000 to 150,000 in capital<sup>3</sup>, amortized to \$30,000 per year. Water, power, maintenance, and mud cleanout and disposal increase the total costs to about \$56,000 per year. These facilities need to have the mud removed weekly, typically removing 800 – 1,000 lbs. of solids. A large site may need two truck wash stations if they have high vehicle traffic. Staff estimates that few, if any large sites will need to install a truck wash system. However, assuming that ten sites determine it is more cost effective to use a truck wash rather than a grizzly system, the costs could be \$1,500,000 capital, with annual costs totaling \$560,000 or approximately \$56,000 annual costs each.

### Visible Road Dust Cleanup

Construction projects, counties and cities, and facilities handling bulk materials will all need to be prepared to clean up any dirt or other materials that may bypass the grizzly and wash stations, resulting in trackout on adjoining paved public roads. Management attention will be required to ensure that their site is not creating trackout, and ensure that any excessive trackout that does occur is cleaned up promptly, and clean up any significant trackout at the end of each workday. Estimated costs are described below.

One option for removing excessive trackout and clean up of all trackout at the end of each workday is to use a street sweeper. Street sweepers are available in three models: rotary brush models available with water sprays to prevent dust during the sweeping operation; vacuum systems with high efficiency air filters to capture and contain more than 80 percent of PM<sub>10</sub>; and regenerative vacuum sweepers that blow air onto the roadway to dislodge dirt and silt out of cracks in the road before vacuuming. Conventional street sweepers are estimated to cost \$250,000, although they do a very poor job of capturing and controlling visible road dust and will probably not prevent dust plumes when sweeping. Regenerative PM<sub>10</sub> efficient street sweepers are estimated to cost \$450,000. Amortized cost is approximately \$80,000 per year, plus an additional \$150,000 per year for an operator, fuel and maintenance. Sites that are effective at preventing trackout will not need a regenerative PM<sub>10</sub> efficient street sweeper.

A simpler option is to send a worker to shovel and sweep up any excessive trackout, and sweep up the area at the end of the workday. Estimated cost for cleanup of 50 square feet of excessive trackout or spills is \$75 (one worker for 1 hour, plus hand tools) each workday, totaling \$15,000 per year (typically 200 dry workdays each year). Most large facilities already conduct cleanup at the end of each workday (or should be doing so to meet the requirements of the SWPPP). Staff estimates no more than an incremental 10 percent of these costs will actually accrue when management and workers are committed to preventing, monitoring and cleaning up trackout. Staff estimates large facilities with effective truck wash systems will not have to do any cleanup. Staff estimates that 200 facilities with effective grizzly systems will have to do minor cleanup at the end of each workday, with total incremental costs for these facilities equal to 10% X \$3,000,000 = \$300,000 annual costs, or \$1,500 per year at each site.

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<sup>1</sup> CASQA TC-1 fact sheet: \$2400 installation and maintenance costs per entrance/exit

<sup>2</sup> Based on 500 lbs. solids removal per week, all potentially converted to silt by vehicle traffic, and 50 percent of silt entrained into the air as fugitive dust.

<sup>3</sup> \$125,000 installed cost at PG&E Power Station cleanup at Hunter's Point

Total costs for implementation of draft new Rule 6-6 are estimated to be \$2,500,000 capital, and \$1,160,000 annual operating costs to achieve emission reductions of 2.69 tpd TSP, 1.23 tpd PM<sub>10</sub>, and 0.16 tpd PM<sub>2.5</sub>. Assuming 200 dry days per year here in the Bay Area, expected emission reductions are 246 tpy of PM<sub>10</sub>, and 36 tpy of PM<sub>2.5</sub>.

### **A. Cost Effectiveness**

Cost effectiveness is an indicator of the efficacy of the draft rule. Staff estimates the cost effectiveness of this proposal is \$1,160,000 annual costs divided by 246 tons per year of PM<sub>10</sub> reductions. Cost effectiveness is \$4,715 per ton of PM<sub>10</sub> reduced. Focused specifically on the 36 tpy of PM<sub>2.5</sub> of emission reductions, cost effectiveness is \$1,160,000 annual costs divided by 36 tons per year of PM<sub>2.5</sub> reductions. Cost effectiveness is \$32,222 per ton of PM<sub>2.5</sub> reduced.

### **B. Incremental Cost Effectiveness**

The next increment of making Rule 6-6 more stringent would be applying the prohibition of trackout to all bulk material sites, construction sites, and disturbed surface sites, rather than just the large sites with area greater than one acre. This would include approximately 1,000 additional sites that would need to add grizzly systems to their exits, and adopt management processes to monitor and cleanup trackout when it occurs.

Costs for 1,000 additional sites at \$10,000 capital cost and \$3,000 annual cost each total to \$10,000,000 capital, and \$3,000,000 annually. Incremental PM emissions reductions are estimated to increase no more than 25 percent of the current estimates, equaling 62 tpy of PM<sub>10</sub>, and 9 tpy of PM<sub>2.5</sub>. Incremental cost effectiveness for applying Rule 6-6 to all sites is \$48,400 per ton of PM<sub>10</sub> reduced, and \$333,333 per ton of PM<sub>2.5</sub> reduced. Staff does not recommend applying Rule 6-6 to the smaller bulk material, construction and disturbed surface sites.

### **C. Socioeconomic Impacts**

The Air District contracts with an independent consultant to conduct a socioeconomic analysis of potential economic impacts from new draft Rule 6-6. After staff received additional input during the workshop process, a proposal and staff report have been used to finalize the Socioeconomic Analysis. The Socioeconomic Analysis is included in the final proposal, posted for public review and comment at least 30 days before the Public Hearing. At the Public Hearing, the Air District Board of Directors will consider the final proposal and public input before taking any action on proposed new Rule 6-6. The Socioeconomic Impact Analysis is included as Appendix A.

The Socioeconomic Analysis concludes that control costs are less than significant, will not impact small businesses, and will not lead to job reductions.

### **D. District Impacts**

Compliance and Enforcement inspectors will need to monitor approximately 150 – 250 large bulk material sites, large construction sites and large disturbed surface sites for trackout, and will need to respond to citizen complaints of localized fugitive dust from trackout. Compliance and Enforcement currently conducts planned inspections of bulk material sites and permitted disturbed surface sites as part of their annual coverage of all permitted facilities. Compliance and Enforcement does not currently plan to proactively monitor and visit construction sites, but will be aware of trackout, and any localized fugitive dust plumes that emanate from trackout, and will be prepared to investigate citizen complaints as needed. The Air District does not intend to hire additional inspectors to provide resources for this work, and anticipates being able to fit trackout issues into the normal work schedule as needed.

Compliance and Enforcement needs no new equipment or procedures for assessing trackout. Inspectors already carry quart cans for measurement of any remaining roadway material. Inspectors have been equipped with tape measures to measure linear feet or square feet of trackout. Costs for these tape measures totaled \$700 at \$10 each for 70 inspectors.

## **VI. REGULATORY IMPACTS**

Regulatory impact analysis is required by [H&SC Section 40727.2](#), comparing the proposal to other Air District, State and federal rules addressing the same sources. The following table provides this regulatory impact analysis.

## Regulation 6, Particulate Matter, Rule 6: Prohibition of Trackout - H&SC Section 40727.2 Regulatory Analysis

Section	Description (paraphrased)	Comparable State or Air District Provision	Comparable Federal Provision	Discussion
101	Description / Purpose	SCAQMD Rule 403 SJVUAPCD Rule 8041		Purpose consistent
102	Applicability			
110	Exemption for Activities Subject to Other Rules			
200	Definitions	SCAQMD Rule 102 SCAQMD Rule 403 SJVUAPCD Rule 8011		Definitions consistent
301	Prohibition of Trackout	SCAQMD Rule 403 SCAQMD Rule 1158 SJVUAPCD Rule 8011 SJVUAPCD Rule 8041	AP-42 DRAFT Section 13.2.1: Paved Roads	SCAQMD extends trackout requirements to 25 feet from exit. SJVUAPCD extends trackout requirements to 50 feet from exit.
302	Cleanup of Trackout	Consistent with control measures identified in SCAQMD Rule 403		Consistent with Regulation 6 control measures cited in Attachment 1-5.
400	Administrative Requirements	per Reg 6.		Must have ability to observe limit or requirement
500	Monitoring and Records	SJVUAPCD Rule 8011		Consistent monitoring and records requirements
600	Manual of Procedures	SCAQMD Rule 403 SCAQMD Rule 1158 SJVUAPCD Rule 8011 SJVUAPCD Rule 8041		Assessment of trackout exceeding 25 linear feet or 25 square feet. End of day cleanup threshold of no more than 1 quart of material.

## VII. ENVIRONMENTAL IMPACTS

### Review of Potential Environmental Impacts Under CEQA

The Air District contracts with an independent consultant to conduct a California Environmental Quality Act (CEQA) analysis of potential environmental impacts from the proposed new Regulation 6, Rule 6. The consultant has made an initial assessment of any environmental impacts based on proposed new Rule 6-6 and this staff report.

Similarly, CEQA environmental analyses have been conducted on the proposed new Regulation 6, and amendments to Rule 6-1. The CEQA analysis, attached as Appendix B, combines these analyses to review all impacts of the proposed new Regulation 6, amendments to Rule 6-1, and new Rule 6-6 together all as one project, so that the cumulative impact of these proposals can be evaluated and considered.

The CEQA analysis shows that no significant environmental impacts are expected and, consequently, a Negative Declaration has been prepared. The CEQA Negative Declaration will be included with the final proposal and posted for public review and comment at least 30 days before the Public Hearing. At the Public Hearing, the Air District Board of Directors will consider the final proposal, and public input before taking any action on the proposed new Rule 6-6, the new Regulation 6, and amendments to Rule 6-1.

## VIII. RULE DEVELOPMENT / PUBLIC PARTICIPATION PROCESS

### Rule Development Process

The Air District's 2010 Clean Air Plan addressed PM, including PM's significant health impacts, and was approved on September 15, 2010. The 2010 Clean Air Plan included Stationary Source Measure SSM 6: General Particulate Matter Emission Limitation and subsequently identified as Stationary Source Measure SS31 in the Air District's 2017 Clean Air Plan. In addition to developing proposed amendments to Rule 6-1 to satisfy SS31, staff identified potential emission reductions from this rule project by reviewing the entire inventory of PM emissions and identified source categories where PM (particularly PM<sub>2.5</sub>) emissions are significant, the Air District has authority, and potential for substantial PM reductions are available.

Staff based proposed Rule 6-6 on the 2011 emissions inventory. Staff identified the source categories to be considered during review of potential amendments, and identified the largest sources in each category. Staff selected 55 of the largest permitted stationary sources, and visited each one to more fully understand each facility's business, each unique emissions source and discuss potential control techniques available to reduce PM emissions. In addition, concerns about the lack of information regarding particle size distribution, possible sources of condensable particulate matter, and potential secondary particulate matter formation were discussed. Staff visited eight facilities that store and handle petroleum coke and coal to ensure the unique issues with these solids were incorporated into the rule development process. Staff used the information from these visits to develop the proposed new Rule 6-6 and to estimate the emission reductions that could be achieved.

Staff conducted eight workshops throughout the Bay Area from January 30 – February 8, 2017. These workshops were conducted in parallel with Open House forums for the 2017 Clean Air Plan. Many stakeholders voiced concern that the PM workshops were diminished by being scheduled with the Clean Air Plan Open Houses, and the combined Open House / workshop

format prevented staff from making a formal presentation regarding the preliminary drafts of each rule or engaging in direct questions / answers. Others felt the personal interaction with staff regarding the preliminary drafts for each rule provided better opportunity for genuine discussion, including questions / answers.

Comments received after the workshops provided additional input regarding the process used for outreach to the wide variety of affected parties. Many indicated that they had not heard about the workshops at all, or only at the last minute. The Public Outreach and Consultation process described below in Section B was not considered satisfactory to some stakeholders, so staff will mail Public Hearing notices to each Air District permitted facility with any significant PM emissions, and mail Public Hearing notices to additional facilities with similar Standard Industrial Classification (SIC) codes or North American Industry Classification System (NAICS) codes from a business database used by the Socioeconomic Analysis contractor called InfoUSA, including construction firms.

Proposed new Rule 6-6 and this accompanying staff report are the next step in the rule development process. Staff anticipates that proposed new Regulation 6, and amendments to Rule 6-1 will be considered together at a public hearing. The consideration of proposed new Rule 6-6 and associated staff report may also be considered at that Public Hearing.

## B. Public Outreach and Consultation

In analyzing the inventory of PM emissions and source categories where PM (particularly PM<sub>2.5</sub>) emissions are significant, where the Air District has authority, and the potential for substantial PM reductions, staff consulted with the following interested and affected parties:

<b>Businesses</b>	<b>Governmental Agencies</b>
Morton Salt - Newark	CALTRANS District 4 - Oakland
Cargill – Newark	Bay Area Regional Water Quality Board - Oakland
Criterion Catalysts - Pittsburg	North Coast Regional Water Quality Board – Santa Rosa
CertainTeed Gypsum – Napa	Bay Area Rapid Transit – Richmond Maintenance Yard
Maxwell House – San Leandro	Alameda County
C & H Sugar – Crockett	Contra Costa County
Con Agra – Oakland	Marin County
CEMEX – Oakland	Napa County
CEMEX – Clayton	Santa Clara County
Strategic Materials – San Leandro	San Francisco City & County
Dutra Materials – San Rafael	San Mateo County
Superior Supplies – Santa Rosa	Solano County
Granite Rock – Redwood City	Sonoma County
Hanson Aggregates – Clayton	City of Hayward
Bodean / Mark West Quarry – Santa Rosa	City of Napa
PABCO Gypsum – Redwood City	City of Oakland
Georgia Pacific Gypsum - Antioch	City of San Jose
Syar - Napa	City of San Rafael

Syar – Santa Rosa	City of Santa Rosa
Syar - Vallejo	
Soiland Quarry - Cotati	
Langley Hill Quarry - Woodside	<b>Industry Associations</b>
Granite Construction – Santa Clara	Association of Building Contractors
Granite Construction – San Jose	Associated Roofing Contractors of the Bay Area Counties
Willowbrook Feeds – Petaluma	California Asphalt Pavement Association
Hunt & Behrens – Petaluma	Construction Industry Air Quality Coalition
Owens-Corning – Santa Clara	Northern California Engineering Contractors
Owens-Brockway - Oakland	
Waste Management – San Leandro	
Zanker Road Material Processing – San Jose	
Waste Management - Altamont	
Redwood Landfill	
Guadalupe Landfill	
Ox Mountain Landfill – Half Moon Bay	
Clover Flat / Upper Valley Resources	
Potrero Hills Landfill	
Stavin	
McGuire & Hester Construction - Oakland	
Ghilotti Bros. Construction – San Rafael	
Universal Building Services - Richmond	
Statewide Sweeping – Milpitas	
Levin Richmond Terminal	
Lehigh Cement	
Phillips 66 Coker	
Phillips 66 Coke Calciner	
Shell Coker	
Tesoro Coker	
Valero Fluid Coker	
APS West	
Carbon Inc.	

These discussions led to review of the SWPPP Best Management Practices, and the suggestion that any new requirements should be consistent with SWPPP requirements.

As described above, feedback indicates that many considered the outreach to be inadequate. Public Hearing notices will be mailed to all Air District permitted facilities with significant PM emissions, and to all entities with similar Standard Industrial Classification (SIC) codes or North American Industry Classification System (NAICS) codes from a business database used by the Socioeconomic Analysis contractor called InfoUSA, including construction firms.

Public Hearings are the next step in the rulemaking process. Air District staff will publish the Public Hearing package for proposed new Regulation 6: Particulate Matter, Rule 6: Prohibition of Trackout. Air District staff will accept written comments, will respond to all comments received

and will present final proposals to the Air District's Board of Directors for their consideration. Response to comments is included as Appendix A of this staff report.

## **IX. CONCLUSION / RECOMMENDATIONS**

Pursuant to the California Health and Safety Code [section 40727](#), before adopting, amending, or repealing a rule the Board of Directors must make findings of necessity, authority, clarity, consistency, non-duplication and reference. This section addresses each of these findings.

### **A. Necessity**

“‘Necessity’ means that a need exists for the regulation, or for its amendment or repeal, as demonstrated by the record of the rulemaking authority.” H&SC [section 40727\(b\)\(1\)](#).

Proposed new Regulation 6, Particulate Matter, Rule 6: Prohibition of Trackout is needed to address the significant PM emissions source category of road dust. SWPPP are currently required for construction sites larger than one acre by the State Water Resources Control Board by authority of State General Construction Storm Water Permit (Water Quality Order 2009-0009-DWQ, amended by 2010-0014-DWQ & 2012-0006-DWQ). While SWPPP's can also prohibit trackout, proposed new Rule 6-6 requires specific monitoring, and clean up actions if trackout is excessive, as well as clean up of trackout at the end of each workday. The Bay Area is not yet in attainment for either PM<sub>10</sub> or PM<sub>2.5</sub> California Ambient Air Quality Standards.

### **B. Authority**

“‘Authority’ means that a provision of law or of a state or federal regulation permits or requires the regional agency to adopt, amend, or repeal the regulation.” H&SC [section 40727\(b\)\(2\)](#)

The Air District has the authority to adopt this rule under Sections 40000, 40001, 40702, and 40725 through 40728.5 of the California Health and Safety Code.

### **C. Clarity**

“‘Clarity’ means that the regulation is written or displayed so that its meaning can be easily understood by the persons directly affected by it.” H&SC [Section 40727\(b\)\(3\)](#)

Proposed new Regulation 6, Rule 6 is written so that its meaning can be easily understood by the persons directly affected by them. Further details in the staff report clarify the proposal, affected emission sources, compliance options, and administrative requirements for the industries subject to this rule.

### **D. Consistency**

“‘Consistency’ means that the regulation is in harmony with, and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations.” H&SC [Section 40727\(b\)\(4\)](#)

The proposed new rule is consistent with other Air District rules, and not in conflict with state or federal law.

## **E. Non-Duplication**

“‘Nonduplication’ means that a regulation does not impose the same requirements as an existing state or federal regulation unless a district finds that the requirements are necessary or proper to execute the powers and duties granted to, and imposed upon, a district.” H&SC [Section 40727\(b\)\(5\)](#)

Proposed new Regulation 6, Particulate Matter, Rule 6: Prohibition of Trackout is needed to address the significant PM emissions source category of road dust. SWPPPs are currently required for construction sites larger than one acre by the State Water Resources Control Board by authority of State General Construction Storm Water Permit (Water Quality Order 2009-0009-DWQ, amended by 2010-0014-DWQ & 2012-0006-DWQ). While SWPPP’s can also prohibit trackout, proposed new Rule 6-6 requires specific monitoring, and cleanup actions if trackout is excessive, as well as cleanup of trackout at the end of each workday. The Bay Area is not yet in attainment for either PM<sub>10</sub> or PM<sub>2.5</sub> California Ambient Air Quality Standards. Proposed new Rule 6-6 is non-duplicative of other statutes, rules or regulations. To the extent duplication exists, such duplication is appropriate for execution of powers and duties granted to, and imposed upon the Air District.

## **F. Reference**

“‘Reference’ means the statute, court decision, or other provision of law that the district implements, interprets, or makes specific by adopting, amending, or repealing a regulation.” H&SC [Section 40727\(b\)\(6\)](#)

The proposed rule has met all legal noticing requirements, has been discussed with the regulated community and other interested parties, and reflects consideration of the input and comments of many affected and interested stakeholders.

## **G. Recommendations**

Air District staff recommends adoption of proposed Regulation 6, Particulate Matter, Rule 6: Prohibition of Trackout and approval of the CEQA Negative Declaration.

## REFERENCES

1. BAAQMD 2010 Clean Air Plan, September 15, 2010
2. BAAQMD Regulation 5: Open Burning
3. BAAQMD Regulation 6, Rule 2: Commercial Cooking Equipment
4. BAAQMD Regulation 6, Rule 3: Wood Burning Devices
5. BAAQMD Regulation 12, Rule 4: Sandblasting
6. BAAQMD Board Resolution 1390
7. BAAQMD Advisory Council, Ultrafine Particles: Ambient Monitoring and Field Studies presentation, 2/8/2012
8. BAAQMD Advisory Council, Ultrafine Particles: Ambient Monitoring and Field Studies presentation, Philip M. Fine, SCAQMD, 2/8/2012
9. BAAQMD Advisory Council, Concentrations of Ultrafine Particles and Related Air Pollutants on and Near Roadways and Other Urban Microenvironments presentation, Eric Fujita, Desert Research Institute, Reno, NV, 2/8/2012
10. EPA Stationary Source Control Techniques Document for Fine Particulate Matter, October 1998
11. EPA Test Methods 5, 5B, 5F, 9, 17, 22
12. EPA Test Methods 201A, 202, 203A, 203B, 203C
13. EPA RACT/BACT/LAER Clearinghouse
14. EPA AP42, Fifth Edition, Volume 1, Chapter 13: Miscellaneous Sources, 13.2
15. EPA, Fugitive Dust Background Document and Technical Information Document for Best Available Control Measures; EPA-450-92-004; September 1992.
16. California Health and Safety Code, §41700
17. California Health and Safety Code, §40000, §40001, §40702, §40725 - 40728,
18. California Air Resources Board - CALIFORNIA EMISSION INVENTORY AND REPORTING SYSTEM (CEIDARS), Particulate Matter (PM) Speciation Profiles, 7/28/2009
19. South Coast Air Quality Management District, Rules 401, 403, 403-1, 404, 405, 444, 445, 1105-1, 1112-1, 1133-1, 1137, 1155, 1156, 1157, 1158, 1186, 1186-1
20. San Joaquin Valley Air Pollution Control District, Rules 4101, 4103, 4106, 4201, 4202, 4203, 4303, 4901, 8011, 8021, 8031, 8041, 8051, 8061, 8071, 8081
21. San Joaquin Valley Air Pollution Control District, Draft Staff Report, BACM Amendments to Regulation VIII (Fugitive PM<sub>10</sub> Prohibitions), 9/27/2001
22. San Joaquin Valley Air Pollution Control District, Draft Staff Report – Appendix C, Cost Effectiveness Analysis of Regulation VIII (Fugitive PM<sub>10</sub> Prohibitions), 9/27/2001
23. Sacramento Air Quality Management District, Rules 401, 403, 404, 405, 406, 407, 409, 417, 421
24. Maricopa County, Arizona Regulation III, Rule 310: Fugitive Dust from Dust-Generating Operations
25. Maricopa County, Arizona Quick Reference Dust Control Guide
26. Northeast States for Coordinated Air Use Management, Assessment of Control Technology Options for BART-Eligible Sources, March 2005

27. California Water Resources Control Board, Construction Storm Water Program, [http://www.waterboards.ca.gov/water\\_issues/programs/stormwater/construction.shtml](http://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.shtml)
28. 2009-0009-DWQ Construction general permit (*effective July 1, 2010*)
29. California Storm Water Quality Association, Storm water Best Management Practice Handbook Portal: Construction

## APPENDICES

- A. Comments and Responses
- B. Socioeconomic Analysis
- C. CEQA Documents

## **Appendix A: Comments and Responses**

### **Regulation 6 Particulate Matter, Rule 1: Rule 6: Prohibition of Trackout Amendments dated June 20, 2018**

No additional comments received.

## Appendix A: Response to Comments - continued

These comments regarding March 5 version of Rule 6-6 were received, and several comments were incorporated into the final rule language, posted on June 20, 2018

### Regulation 6 Particulate Matter, Rule 6: Prohibition of Trackout Dated March 5, 2018

#### Pacific Gas and Electric Company

#### *III. Regulation 6-6: Prohibition of Trackout and Regulation 6-8: Bulk Material Storage and Handling*

#### *Definition of “Large Bulk Material Site”*

#### Comment

The definition of “Large Bulk Material Site” should be consistent with how a Stormwater Pollution Prevention Plan (SWPPP) would calculate site size. Please consider the following suggested language:

**Large Bulk Material Site:** Any Bulk Material Site where the total [land](#) area [covered by material storage piles](#) is greater than 1 acre.

PG&E Service Centers are typically greater than 1 acre, but most of the area is covered by buildings and paved area. Only a small portion of the facility (typically less than 1 acre) is dedicated to bulk material storage (may be paved or unpaved). A site like this would not be subject to a SWPPP and thus should not be included in the definition of Large Bulk Material Site.

#### Response

Good suggestion. Language to incorporate the concept of land covered by bulk material handling operations including stockpiles, and disturbed surfaces has been incorporated into definition 6-1-207. Similarly, definitions for Large Construction Sites and Large Disturbed Surface Sites have been adjusted to reflect the same concept.

#### Granite Construction

#### *Section 6-6-301*

#### Comment

Trackout from construction projects is already regulated by the California State Resources Control Board (CSRCB). The Construction General Permit issued by CSRWB specifies monitoring and recordkeeping for trackout at all Large Construction Sites. This proposed rule creates redundant regulations and additional recordkeeping for construction companies and project owners.

### Response

As stated in the staff report, staff visited at least 30 bulk material handling and disturbed surface sites, and approximately 50 construction sites of various sizes. Despite the existing local requirements that prohibit trackout, staff found 30 percent of the bulk material handling sites and approximately 50 percent of the construction sites had obvious trackout issues. Staff has been questioned whether approximately 50 construction sites is an adequate sample size given the large amount of construction in the Bay Area. However, staff observes the pattern of non-compliance with the trackout requirements was very clear. Enforcement appears to be inconsistent, either through lack of resources or the current mode of operation where trackout is checked only when a complaint occurs. Air District Compliance and Enforcement staff provide additional resources that can respond when trackout issues are found.

### **California Asphalt Pavement Association (CalAPA) and California Construction and Industrial Materials Association (CALCIMA)**

#### **Regulation 6 Rule 6 -301 Prohibition of Trackout – Clarify Quart Collection Method and Remove 25 Square Foot Area Measurements.**

### Comment

We appreciate that the District has modified the provision for material remaining at the end of the day to no more than a “quart” of material. However, we still see some challenges to implementation. We find no guidance for how this measurement would be applied; there are no sampling protocols referenced or applicability guidelines established. For example, it is not specified how the collection method would vary between paved and unpaved areas, or traveled versus non-traveled surfaces. It could be that this method is not appropriate for unpaved or non-travel areas, however this is not clear. The test method collection protocol needs to be clarified and tested so the standard can be understood and implemented consistently across the District. We also request that the implementation of this requirement be delayed until after the development of test method collection protocols.

Second, we believe the track-out provision is overly conservative; we do not see a need for this District to exceed the criteria of other locales in the State with more serious particulate matter compliance issues. We strongly recommend removing the area criteria of 25 square feet and simply going with the cumulative 25 linear feet; this would be consistent with the South Coast Air Quality Management District’s track-out rule. Many of our members have facilities all across the State, so consistency among the Districts would make compliance easier. Removing the area criteria would not significantly impact the efficacy of this regulation; a linear standard plus a requirement to effectively ensure clean-up at the end of the workday would be more than effective. Linear measurements of distance also have the advantage of being easily accomplished from the side of the roadway without exposing employees’ or inspectors to the direct hazards of vehicle traffic.

## **Granite Construction**

### *Section 6-6-302*

#### Comment

This rule defines the limits of visible trackout in linear feet and square feet. We recommend that the rule set a consistent measurement using linear feet to prevent confusion. Also, the rule notes that remaining trackout on the roadway will not be more than “1 quart”. This will not be a simple measurement to make and we request a method to calculate this quantity.

With this rule, a site will be out of compliance if trackout, or cleanup of trackout, creates a particulate matter over 10percent opacity. This is not a practical standard, especially during cleanup operations. We recommend changing the wording to require Sites to maintain 20 percent opacity (or Ringelmann 1) for three minutes in any one hour. This is a standard requirement for fugitive dust in other California air districts. The amount of fugitive dust created by this regulation would be minimal and allows a Site to become aware of a problem and address it before being out of compliance.

Staff believes it to be a simple matter for an operator to sweep spilled material up and pour it into a container that is at least a quart in volume to determine compliance with this section.

#### Response

Rule language in Section 6-6-301 has been modified to adjust the criteria for excessive trackout at cumulative 25 linear feet. Staff accepts the suggestion to eliminate the trackout limit of 25 square feet. Staff agrees that the limit of 25 cumulative linear feet of trackout is consistent with other air district requirements and is adequate to drive the monitoring and prevention of trackout, and cleanup as needed.

## **Lehigh Hansen West Region**

#### Comment

Section 6-6-301 prohibits track-out beyond a certain size, but does not allow the facility time to identify the problem or respond. That is, the mere existence of the track-out would result in an immediate violation, regardless of how long it has been there or if the facility is in the process of responding. As noted above, all of our facilities have a sweeping service that sweeps the public streets. Once track-out is observed, it would take time for a sweeping service to respond. It would also take time for our facilities to conduct the twice daily inspections required in Section 6-6-501 to identify problematic track-out conditions. It is not hard to imagine a situation in which a facility observes track-out that is approaching, but is still below, the proposed limits and initiates corrective actions (e.g. requests a sweeper), but in the course of waiting for the sweeper the track-out extends past the allowable length. In this situation, the facility would immediately be non-compliant. Without a buffer allowing for response time, this section as it is

currently written is designed to set facilities up for non-compliance. Hanson thus requests the addition of a response time:

*Section 6-6-301: The owner/operator of any Large Bulk Material Site, Large Construction Site, or Large Disturbed Surface Site shall not cause or allow trackout at any exit from such site onto an adjacent paved public roadway or shoulder of a paved public roadway that exceeds cumulative 25 linear feet or an area more than 25 square feet that creates fugitive dust visible emissions, without cleaning up such trackout within 4 hours of identification of such trackout.*

In addition, Section 6-6-501.3 requires the facility to document each occasion when the trackout exceeds the limits outlined in Section 6-6-301, *and all cleanup actions taken.* Without any allowance of time to complete such cleanup actions, Section 6-6-501.3 essentially would require facilities to self-report violations of 6-6-501.3. This does not seem appropriate, nor equitable.

#### Response

Staff is sympathetic to the concern about no available time to respond and take correction actions to resolve a problem. Staff included four hours of response time in the workshop version of this rule, and received comments that four hours was not adequate. However, any response time longer than four hours is moot, because trackout must be cleaned up at the end of each workday. Rule language has been adjusted as you suggest to provide four hours of response time.

Section 6-6-501.3 rule language has been adjusted to clarify documentation required for both trackout control actions and cleanup actions.

#### **Phillips 66**

*Section 6-6-301*

#### Comment

Phillips 66 suggests clarifying this section so it is clear that the trackout standard applies only to public roadways, not any internal roadway. For example, Phillips 66 suggests, "" ... " and shall not cause or allow more than 1 quart of trackout to remain on the adjacent paved public roadway at the end of any workday"

#### **Western States Petroleum Association**

#### Comment

WSPA asks the District to clarify that the proposed Section 6-6-301, Prohibition to Trackout onto Paved Roadways apply only to public roadways. We suggest the following language in (underline/strikeout):

*6-6-301 ...and shall not cause or allow more than 1 quart of trackout to remain on the adjacent paved public roadway at the end of any workday.*

### Response

As suggested, clarification has been added to the rule language in Section 6-6-301 as follows: and shall not cause or allow more than 1 quart of trackout to remain on the adjacent paved public roadway or the paved shoulder of the paved public roadway at the end of any workday.

### **Waste Management – vis SCS Engineers**

#### Section 6-6-301 – Prohibition of Trackout onto Paved Roadways

### Comment

This provision sets a limit of trackout, remaining at any exit from the site at the end of any workday, to one quart of trackout. This limit seems unreasonably and arbitrarily small, and defies common sense, as almost any industrial facility might have at least one quart of soil or other debris on its surface at any given time. We propose language to the effect that trackout at the site exits will be removed to the extent feasible at the end of each workday; or if a quantifiable limit must be set, a more reasonable limit of 10 square feet is proposed.

### Response

The one quart of residual trackout allowed after cleanup was reverse-engineered based on the cost to sweep up any residual on the shoulder of the paved public roadway, and any trackout that extends out onto the paved public roadway. Costs were estimated to be \$25.00 (one half hour of work by one person with broom and dust pan), assuming a reasonable cost effectiveness threshold of \$20,000 per ton of PM emissions prevented. The resulting calculation yields 2.5 pounds of dry trackout material (about 3.75 pounds of wet trackout material) with a volume of approximately one quart.

Safety concerns around sweeping a paved public roadway are valid. If traffic prevents cleanup, then sweeping up the residual trackout so that it can be measured is infeasible, and cannot be measured.

Allowable residual trackout of one quart is a performance based standard, and achievable when traffic patterns allow cleanup of residual trackout.

### **California Asphalt Pavement Association (CalAPA) and California Construction and Industrial Materials Association (CALCIMA)**

*Comments Rule 6-1-307.1 and 6-6-302 – Adjust Visible Emissions from 10 percent Opacity to 20 percent Opacity*

### Comment

In reviewing these sections, we appreciate the decision to add a plume size to the District's opacity processes. However, a 10 percent opacity standard is not a feasible standard at a large facility whose primary function is to produce earthen materials for the construction market. It becomes essentially a standard where

visible dust of a very limited nature creates a violation, instead of triggering further actions to limit dust. We do not see how such a standard can be met during clean-up and other mechanized activities at mineral and construction material sites. We do agree dust should not exceed 20 percent opacity for three minutes in any one hour during normal activities and it is the margin between the first visible signs of dust around 10 percent and before reaching 20 percent where successful reactive dust suppression efforts take place at well managed facilities. Further, we believe even the best street sweepers would generate more than 10 percent opacity over 5 feet, but to generate over 20 percent for that distance would likely reflect poor operating controls.

We strongly request the district adopt a 20 percent opacity standard based on three minutes in any one hour for 6-1-307.1 and 6-6-302. This is consistent with other Air Districts in California, including South Coast Air Quality Management District Rule 403 and San Joaquin Valley Air Pollution Control District Rule 8031.

### **Waste Management – vis SCS Engineers**

#### *Section 6-6-302 – Prohibition of Visible Emissions During Cleanup of Trackout*

##### Comment

This provision establishes a visible emissions limit for trackout cleanup activities, which we believe is redundant and counterproductive. The fact that cleanup of trackout is being performed implies that significant trackout already exists. This provision establishes a visible emissions limit overlaid on the trackout limits already imposed by the rule. We can assume that trackout cleanup activities will disturb the trackout material, to some extent. We have proposed language requiring that visible emissions be limited to the extent feasible during cleanup activities. This type of language is common in air quality regulations and we believe it is appropriate in this case.

##### Response

Staff agrees with the concern about cleanup activities. Each cleanup can be unique, and may result in creating a localized fugitive dust problem. Staff has modified rule language to provide a 20 percent opacity limit for cleanup activities in Section 6-6-302.

### **Granite Construction**

#### *Section 6-6-501*

##### Comment

This rule will require trackout monitoring and recordkeeping twice a day. This is unnecessarily burdensome. As stated above, construction sites are already required to monitor trackout. We suggest that any mandatory inspections be

require weekly. Weekly inspections will provide necessary information about operations that should be addressed in order to perform to the required standard.

## **Lehigh Hansen West Region**

### *Monitoring Requirements*

#### Comment

In both Rule 6-1 and Rule 6-6, there are requirements to document the date, time, and location of each inspection conducted. In Rule 6-1, there is a daily inspection with twice a day for certain sources. For Rule 6-6, there is a twice daily inspection. Assuming a standard 262 work days a year, this results in as many as 1,048 inspection reports to complete. Note that in our industry, it is common to work on weekends and some holidays to respond to construction schedules, so there could be many more inspection reports to complete. More than one thousand inspection forms is an extremely burdensome requirement that does not provide much benefit. The true benefit is focusing on conducting useful inspections and responding appropriately, not on whether inspection form # 999 was completed properly. Having a requirement to formally document each and every inspection would result in an unreasonable and unattainable administrative burden. Hanson requests that the prescriptive inspection documentation be removed and instead, documentation be required only if a corrective action is needed. This would reduce the unnecessary paperwork and provide the District with assurances that the facility is responsive to potential visible emissions or track-out concerns.

## **Phillips 66**

*Regulation 6, Rule 6: Prohibition of Trackout, 6-6-501.1.*

#### Comment

This section requires twice per day monitoring of facility exits onto public roads. Phillips 66 currently conducts daily rounds to observe exits which produces a robust program to prevent trackout and proposes conducting once a day observations in alignment with obligations under proposed Regulation 6-1-506. For example, Phillips 66 proposes, "6-6-501.1 Monitor the extent of the trackout at each exit from the site onto a paved public road at least ~~twice~~ once during each workday, at a times when vehicle traffic exiting the site is most likely to create an accumulation of trackout."

## **Waste Management – vis SCS Engineers**

### *Section 6-6-501 – Monitoring and Recordkeeping*

#### Comment

This part of the Rule requires monitoring at least twice a day at all site exits. We believe this frequency of monitoring (and potentially cleanup) of trackout material

is excessive, onerous, and unwarranted. Landfill facilities already have procedures in place to control trackout. We propose that monitoring simply be included as part of the requirement to clean up trackout at the end of each workday. This frequency should be more than sufficient to limit trackout from landfills and other waste management facilities. We also propose adding, as new Section 6-6-301.4, a requirement to follow best management practices (BMP) for trackout control, as follows:

*6-6-301.4 Follow Best Management Practices for trackout prevention at all times when the facility is in operation.*

### Response

Staff is sensitive to the concern of creating “an extremely burdensome requirement that does not provide much benefit.” However, the concern this rule language addresses is based on staff visits to various solids handling sites:

- about 30 percent of quarries, landfills, and other disturbed surface sites visited had trackout issues
- about 50 percent of the approximately 50 construction sites visited had trackout issues.

Some commenters take the position that the minority poor performers are triggering unnecessary and burdensome requirements on the majority of good performers.

Staff believes that a spot-check on control of trackout mid-day is not extremely burdensome. It is very likely that the majority of good performers do spot-checks of their entire operation as a normal part of their daily work. This requirement is a matter of requiring each site to “notice” if operations are being conducted properly – in this case whether the conditions that prevent trackout are in place. Twice daily monitoring and documentation is a management system that is accountable, and more importantly supports the need to train every employee on-site that dust, and in this case trackout which is a precursor to dust, is “noticed” and addressed if needed. Staff does not prescribe how to set up this management and recordkeeping system so that each approach can be consistent with the recordkeeping already in place.

In addition, Section 6-6- 301 has been modified to allow an excessive trackout cleanup window of 4 hours. Without a mid-day check on the status of trackout prevention, trackout has the potential to be on the road for most of the workday without any notice or cleanup. The cleanup period is rendered moot without a mid-day check for excessive trackout.

The suggestion to require documentation only if a corrective action is needed undermines the need to be proactive in monitoring the conditions that prevent trackout.

Section 6-6-501.2, 501.3 and 501.4 rule language has been adapted to reduce recordkeeping burden yet still hold the site accountable for managing the conditions that prevent trackout.

## **Pacific Gas and Electric Company**

### *IV. Effective Date*

#### Comment

The effective date specific to regulated bulk material site requirements and trackout requirements is July 1, 2019. It is important to allow facilities the time to strategize and implement compliance strategies for new and amended regulations. PG&E appreciates that this was considered in regards to the proposed Regulation 6 amendments.

#### Response

Staff agrees.

## **California Asphalt Pavement Association (CalAPA) and California Construction and Industrial Materials Association (CALCIMA)**

### *Section 6-6-501 – Monitoring and Recordkeeping - Change to Weekly Monitoring and Recordkeeping*

#### Comment

After meeting with staff and discussing the intent of the District's recordkeeping efforts, we understand the goal is to push a minority of facilities in the District to better maintain their track out system. We respect that goal, however a daily recordkeeping regime for all facilities is significantly burdensome and can actually detract from dust control efforts. Effective dust control happens when many employees take ownership and control of housekeeping and maintenance activities, with the direction, support and encouragement of management. It is an ingrained culture, not the result of an inspector at a facility flagging issues. A designated responsible employee becomes an excuse for others to not take ownership and initiative in maintaining their areas.

Facilities that struggle to properly maintain their operations will reveal themselves as readily on a weekly inspection form up for District review. However, it is easier to implement and less disruptive for facilities that have robust management and effective work cultures in place. We would suggest the following changes to this track out section.

### *Section 6-6-501 Monitoring and Recordkeeping*

The owner/operator of any Large Bulk Material Site, Large Construction Site, or Large Disturbed Surface Site that produces trackout shall:

- 501.1 Monitor the extent of the trackout at each active exit from the site onto a paved public road at least twice once during each week workday, at times when vehicle traffic exiting the site is most likely to create an accumulation of trackout, or as otherwise specified by the APCO;
- 501.2 Document the date, time and exit locations monitored locations monitored each week workday;

- 501.3 Document ~~each occasion when the trackout exceeds cumulative 25 linear feet or an area more than 25 square feet, and all trackout control maintenance cleanup~~ actions initiated as a result of monitoring under 501.1 taken; and
- 501.4 Maintain the records required by Sections 6-6-501.2 and 501.3 for two years, in electronic or log book format, and make them available to the APCO upon request.

The change to “active” exits ensures clarity that exits not utilized are not required to be monitored. It would also be desirable to add a definition for “active exit.”

The change to 501.3 has the facility document trackout maintenance activities undertaken as a result of the monitoring in 501.1 without requiring facilities maintain an exhaustive list of their normal trackout control efforts.

We believe this suggestion strikes a balance between the District’s desire to encourage better culture-based management by all parties without creating an extremely onerous paperwork burden on the majority of companies already maintaining their trackout systems in a responsible manner.

Finally, we would like to clarify that our understanding of the language, “in electronic or log book format” means that facilities can keep records electronically or on hard copy. Further, we understand that the intent is not to limit facilities from capturing information on forms or documents that they may already utilize for other inspections/monitoring of their facilities. Please confirm our understanding on these two matters.

### Response

This comment correctly observes that the intention of more rigorous monitoring and recordkeeping is to require the facilities with obvious trackout problems to improve their monitoring, be accountable for monitoring, and take corrective actions when needed. The commenter observes that the majority of facilities currently perform these tasks well, and burdensome recordkeeping is not necessary. Staff agrees that those facilities that currently monitor their operations well can simply document those monitoring efforts in any manner they choose. Staff, however, cannot create one set of requirements for those who currently monitor and take corrective actions and a different set of requirements for those who currently do not monitor or do not take corrective actions well. Staff proposes to retain daily monitoring and recordkeeping.

The comment is that daily recordkeeping is significantly burdensome, and actually detracts from dust control efforts. Staff strongly agrees with the need to establish an environmental culture where employees “notice” when operations are not consistent with environmental requirements, and take corrective actions. Management systems need to be in place to support and reinforce noticing if there is a problem with trackout prevention, and having authority to take corrective actions as needed. Staff is not suggesting that a single “inspector” approach is more effective than having every employee know what the requirements are, and notice if the operation is not meeting the requirements. However, staff is very skeptical that reducing frequency of monitoring operations and environmental compliance to a weekly requirement will support building the

culture needed.

Staff has added “active” to exit in Section 6-6-301 to clarify monitoring needs to occur only at active exits with the potential to create trackout, not any other exits.

Staff has adjusted the rule language in 6-6-501.1, 501.2 and 501.3 to require documentation of the active exit locations each workday, and document trackout control and cleanup actions initiated as a result of the monitoring.

Staff has included “paper hard copy” into the rule language in 6-6-501.4 to clarify that each facility may incorporate trackout monitoring and recordkeeping into their existing management systems.