

# Proposed Rule 1466: Control of Particulate Emissions from Soils with Toxic Air Contaminants



PUBLIC WORKSHOP

MAY 10, 2017

# Background

- ▶ Soils with toxic air contaminants can become airborne during excavation, grading, stockpiling, removal, and similar activities and can result in exposure to toxic air contaminants
- ▶ SCAQMD's existing regulatory structure addresses:
  - ▶ Volatile organic compound contaminated soil (Rule 1166)
  - ▶ Toxic emissions from equipment used for on-site remediation (Rule 1401)
  - ▶ Fugitive dust (Rule 403)
  - ▶ Public nuisance (Rule 402)
- ▶ Currently, existing regulatory structure does not address earth-moving activities that may result in exposure to metal or other particulate toxic air contaminants

# Public Process

- ▶ Three Working Group Meetings
  - ▶ March 16, 2017
  - ▶ April 13, 2017
  - ▶ May 3, 2017
  
- ▶ 4<sup>th</sup> Working Group Meeting
  - ▶ Tentatively scheduled for May 18, 2017

# Objectives of Proposed Rule 1466

- ▶ Establish basic requirements to minimize offsite fugitive dust emissions that contain toxic air contaminants during earth-moving activities
- ▶ Provides additional health protection from toxic particulate emissions while not impeding cleanup activities
- ▶ Requirements intended to be incorporated in other agencies' cleanup plans
- ▶ Approach does not preclude a cleanup agency from imposing more stringent limits or measures
- ▶ PR 1466 fills gap in existing regulatory structure

# Applicability

- ▶ Applies to an owner or operator conducting earth-moving activities of soils that contain the certain toxic air contaminants
- ▶ Only sites that have been identified to contain arsenic, asbestos, cadmium, hexavalent chromium, lead, mercury, nickel, or polychlorinated biphenyls as contaminants of concern at a site that has been designated by the following agencies based on their thresholds:
  - ▶ U.S. Environmental Protection Agency as a Superfund National Priorities List site;
  - ▶ Department of Toxic Substances Control as Brownfield or Cleanup Program site;
  - ▶ State Water Resources Control Board or Regional Water Quality Board as a Site Cleanup Program site; or
  - ▶ SCAQMD Executive Officer

# PM<sub>10</sub> Threshold

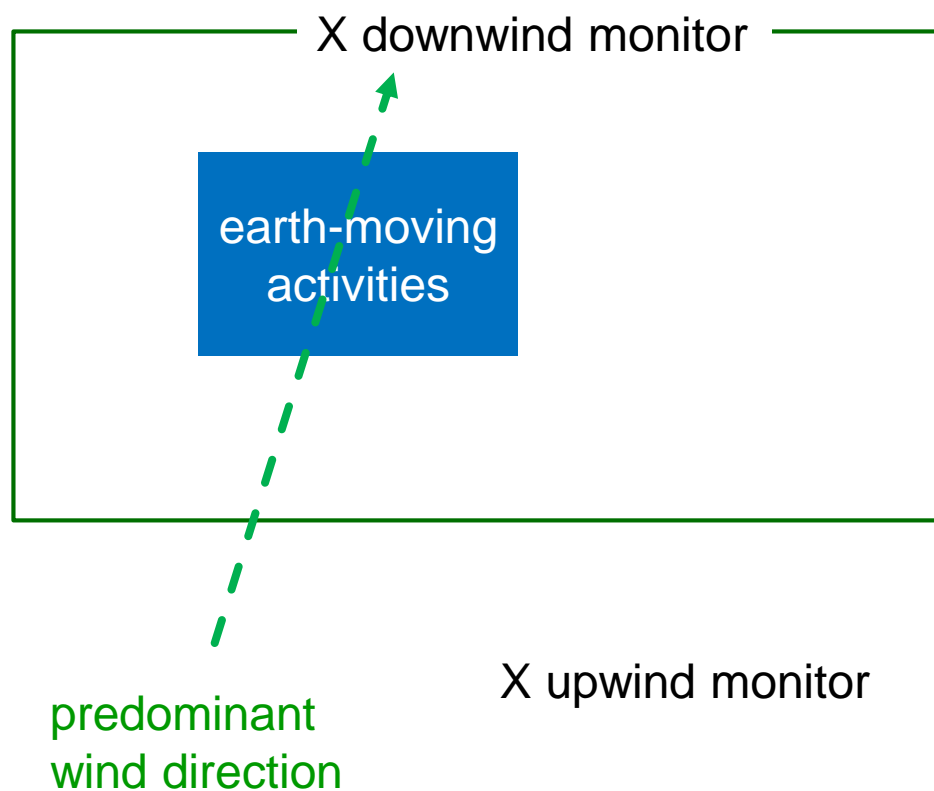
- ▶ Owner or operator must conduct continuous near real-time ambient monitoring of PM<sub>10</sub> concentrations when conducting earth-moving activities
- ▶ If the ambient PM<sub>10</sub> contribution exceeds 25 µg/m<sup>3</sup> averaged over one-hour, the owner or operator must:
  - ▶ Cease earth-moving activities
  - ▶ Apply dust suppressant to fugitive dust sources or implement other dust control measures
- ▶ Can resume earth-moving activities when PM<sub>10</sub> concentration is equal to or below 25 µg/m<sup>3</sup> averaged over 30 minutes

# PM<sub>10</sub> Monitoring

- ▶ Method must be a federally equivalent PM<sub>10</sub> monitoring method or method approved by the Executive Officer
- ▶ Monitor Requirements
  - ▶ A minimum of one upwind and one downwind monitor
    - ▶ Upwind monitor(s) must be indicative of background PM<sub>10</sub> levels and not generally influenced by fugitive dust sources from the site
    - ▶ Downwind monitor(s) must be placed in the predominant wind direction downwind of any earth-moving activity and as close to the property line as feasible
  - ▶ Requires data acquisition system capable of logging near real-time data providing date, time, and PM<sub>10</sub> concentration in micrograms per cubic meter every 10 minutes or less



# Monitor Placement





# PM<sub>10</sub> Calculation

- ▶ The PM<sub>10</sub> concentration is the difference between the hourly average of the upwind and downwind monitors
  - ▶ Hourly average PM<sub>10</sub> concentration starts at the top of each hour
  - ▶ If there is more than one upwind monitor, the upwind hourly average is the hourly average of all upwind monitors
  - ▶ If there is more than one downwind monitor, the downwind hourly average is the maximum hourly average concentration of any of the downwind monitors
- ▶ The owner or operator may use a different calculation methodology approved by the Executive Officer if the owner or operator has demonstrated that the PM<sub>10</sub> concentration is the result of another source

# PM<sub>10</sub> Calculation Example

## ▶ Hourly Averages

- ▶ Upwind Monitor 1 = 68  $\mu\text{g}/\text{m}^3$
  - ▶ Upwind Monitor 2 = 72  $\mu\text{g}/\text{m}^3$
  - ▶ Downwind Monitor 1 = 83  $\mu\text{g}/\text{m}^3$  ← Max Downwind
  - ▶ Downwind Monitor 2 = 77  $\mu\text{g}/\text{m}^3$
  - ▶ Downwind Monitor 3 = 81  $\mu\text{g}/\text{m}^3$
- Average Upwind = 70  $\mu\text{g}/\text{m}^3$

## ▶ Calculation

- ▶  $83 \mu\text{g}/\text{m}^3 - 70 \mu\text{g}/\text{m}^3 = 13 \mu\text{g}/\text{m}^3$

# Dust Control Measures – General

- ▶ Surround perimeter with fencing and windscreens
  - ▶ Fencing must be a minimum of 6 feet tall and at least as tall as the height of the tallest stockpile
  - ▶ Windscreen must have a porosity of 50%
- ▶ While conducting earth-moving activities:
  - ▶ Adequately wet to the depth of earth-moving activity and allow time for penetration; and
  - ▶ Adequately wet at frequencies to prevent the generation of visible dust plumes
- ▶ Stop all operations if average wind speed exceeds 15 mph or instantaneous wind gust exceeds 25 mph

## Dust Control Measures – General (continued)

- ▶ Immediately remove any spilled soil containing applicable toxic air contaminants
- ▶ Onsite dust control supervisor required to be onsite
  - ▶ Must have completed AQMD Fugitive Dust Control Class
  - ▶ Must be asbestos trained, if asbestos is contaminant of concern
- ▶ Stabilize potential fugitive dust sources if earth-moving activities will not occur for three or more days
- ▶ Alternative dust control measures allowed

# Dust Control Measures – Vehicles

- ▶ Speed Limit = 15 mph
- ▶ Stabilize all surfaces used for vehicular traffic and parking
- ▶ Clean trucks, trailers, and tires prior to leaving site
- ▶ Track-out shall not extend beyond 25 feet of the property line
  - ▶ Remove track-out daily using a vacuum equipped with a filter
- ▶ Employ at least one vehicle egress measure:
  - ▶ Install a pad consisting of washed gravel
  - ▶ Pave the surface
  - ▶ Utilize a wheel shaker/wheel spreading device
  - ▶ Install and utilize a wheel washing system



# Dust Control Measures – TAC Contaminated Stockpiles

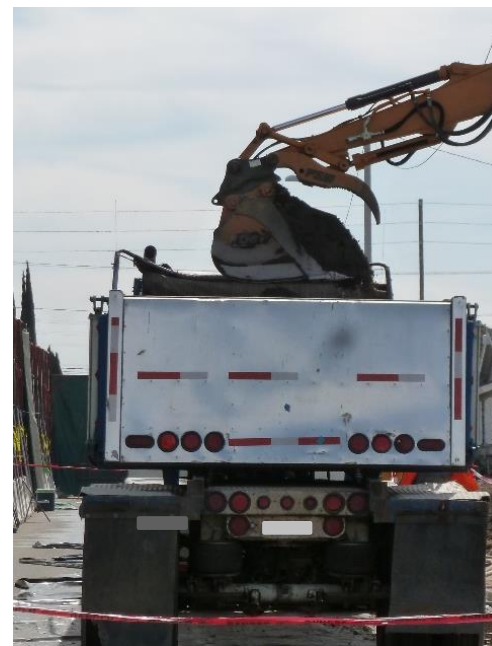
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- ▶ Segregate contaminated stockpiles from non-contaminated stockpiles
  - ▶ Label contaminated stockpiles “SCAQMD Rule 1466 Contaminated Soil”
- ▶ Stockpiles must not have steep sides or faces beyond the angle of repose
- ▶ Stockpiles must not exceed 400 cubic yards or height of perimeter fencing and windscreen
- ▶ Apply dust suppressant to stockpiles
- ▶ Completely cover stockpile with 10 mL thick plastic sheeting which overlap a minimum of twenty-four inches at the end of each working day or stabilize stockpile
- ▶ Inspect covered/stabilized stockpiles daily and repair cover or re-stabilize as necessary

# Dust Control Measures – Truck Loading

- ▶ Loading and unloading TAC-contaminated materials
  - ▶ Water or stabilize material prior to moving
  - ▶ Empty loader bucket slowly so that no dust plumes are generated
  - ▶ Minimize drop height from loader bucket
- ▶ Maintain at least six inches of freeboard while transporting within a site
- ▶ Truck and trailer shall be completely tarped before leaving the site





# Schools and Early Education Centers

- ▶ Earth-moving activities must not be conducted while school is in session
- ▶ Contaminated soil must be:
  - ▶ Immediately placed in sealed containers;
  - ▶ Directly loaded into trucks and hauled off site;
  - ▶ Stockpiled in a fenced and locked area



# Notification of Intent to Conduct Earth-Moving Activities

- ▶ At least 72 hours and no more than 30 days prior to conducting any earth-moving activities, the owner or operator must electronically notify the Executive Officer
- ▶ Notification must include
  - ▶ Owner or operator and onsite dust control supervisor information
  - ▶ Project name and identification number from designating agency
  - ▶ Project location
  - ▶ Identify if site is a school or early education center
  - ▶ Map of site which indicates locations of earth-moving activities and concentrations of applicable toxic air contaminants
  - ▶ Anticipated project start and end date
  - ▶ Current and/or previous site operations and uses

# Notification of PM<sub>10</sub> Exceedance

- ▶ Within 72 hours of exceedance of daily average limit, the owner or operator must email a notification to the Executive Officer
- ▶ Notification must include
  - ▶ Owner or operator and onsite dust control supervisor information
  - ▶ Project name and identification number from designating agency
  - ▶ Project location
  - ▶ PM<sub>10</sub> monitoring results, including date and time of
    - ▶ Exceedance(s)
    - ▶ 12 hours before first exceedance
    - ▶ 12 hours after last exceedance
  - ▶ Earth-moving activities occurring at the date and time of exceedance(s)
  - ▶ Dust control measure(s) taken to mitigate fugitive dust

# Signage Requirements

- ▶ The owner or operator must install and maintain a sign in accordance with the following requirements, unless otherwise approved in writing by the Executive Officer:
  - ▶ Installed at all entrances and at intervals of 1,000 feet or less along the property line or perimeter of the site, with a minimum of one along each side
  - ▶ Located between 6 and 8 feet above grade from the bottom of the sign
  - ▶ Measures at least 48 inches wide by 48 inches tall
  - ▶ Displays lettering at least 4 inches tall with text contrasting with the sign background that states:

“THIS SITE CONTAINS SOILS THAT CONTAIN THE FOLLOWING CHEMICALS:  
[LIST APPLICABLE TOXIC AIR CONTAMINANTS]  
TO REPORT ANY DUST LEAVING THE SITE PLEASE CALL [FACILITY CONTACT] OR  
THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT AT 1-800-CUT-SMOG”

# Recordkeeping Requirements

- ▶ Records must be maintained for at least three years and made available upon Executive Officer request
- ▶ Maintain records of:
  - ▶ Covered stockpile inspections
  - ▶ PM<sub>10</sub> and wind monitoring results, including calibration records
  - ▶ Earth-moving activities conducted and corresponding volume of contaminated soil
  - ▶ Names and addresses of transporter and receiving facility of soils with applicable toxic air contaminants and a copy of the shipping manifests
  - ▶ Complaints called in, including the name of complainant and contact information, date and time, earth-moving activities occurring at the date and time, complaint, and action taken to mitigate the source of the complaint

# Exemptions

- ▶ PR 1466 includes the following exemptions:
  - ▶ Earth-moving activities of soils with applicable toxic air contaminants of less than 50 cubic yards
  - ▶ Removal of soil for sampling purposes
  - ▶ Notifications for operations conducted during emergency life-threatening situations
    - ▶ The Executive Officer shall be notified no later than 48 hours following such earth-moving activities.
  - ▶ Active operations conducted by essential service utilities to provide electricity, natural gas, telephone, water, or sewer during periods of service outages and emergency disruptions
    - ▶ The Executive Officer shall be notified no later than 48 hours following such earth-moving activities.

# Key Issues

- ▶ Stakeholder Comment: Requesting additional provision that allows an owner or operator to demonstrate that a site is not applicable to PR 1466
  - ▶ Staff Response: Staff working with stakeholder to develop additional criteria that Executive Officer can consider
- ▶ Stakeholder Comment: Alternative provision needed to ensure proposed rule does not delay cleanup activities at schools and early education centers
  - ▶ Staff Response: Staff is continuing to work with stakeholder to identify options that can be health protective to children without substantially impacting cleanup activities at schools

# California Environmental Quality Act (CEQA)

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- ▶ California State Law adopted 1970
- ▶ Purpose [CEQA Guidelines § 15002(a)]
  - ▶ Inform governmental decision-makers and public about potential significant effects of projects
  - ▶ Identify ways to avoid or reduce adverse impacts
  - ▶ Require feasible alternatives and mitigation measures to prevent significant environmental damage
  - ▶ Disclose to the public why a project was approved
- ▶ Applies to projects undertaken by a Public Agency such as SCAQMD adoption of rules [CEQA Guidelines § 15002(b)]
  - ▶ Required to comply with CEQA when approving a project [CEQA Guidelines § 15002(d)]
  - ▶ Required for discretionary approvals [CEQA Guidelines § 15002(i)]
- ▶ Lead Agency = SCAQMD
  - ▶ Oversight and legal responsibility for appropriate CEQA document preparation, circulation, response to comments, and approval/certification



# CEQA (continued)

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- ▶ PR 1466 is a project subject to CEQA
- ▶ Decision to prepare 30-day Draft Environmental Assessment (EA)
  - ▶ Equivalent to a Negative Declaration when no significant impacts identified
  - ▶ No CEQA scoping meeting is required to be held
  - ▶ Analysis of alternatives and mitigation measures not required
  - ▶ Will contain project description (Chapter 1) and environmental checklist (Chapter 2) to evaluate project's impacts on 17 topic areas
  - ▶ Will be released for 30-day public review period from May 16, 2017 to June 15, 2017
- ▶ Final EA
  - ▶ Will include responses to Draft EA comment letters and any necessary modifications to Draft EA
  - ▶ Governing Board must certify Final EA



# Tentative Schedule

- ▶ May 18, 2017      Tentative – Working Group Meeting #4
- ▶ May 19, 2017      Stationary Source Committee
- ▶ June 2, 2017      Set Hearing
- ▶ July 7, 2017      Public Hearing

# SCAQMD Contacts

## Rule Development

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## General Questions

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