



Proposed Rule 1466: Control of Toxic Air Contaminant Emissions from Soil

WORKING GROUP #1

MARCH 16, 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

Rule 1166 – Volatile Organic Compound Emissions from Decontamination of Soil

► Purpose

- To reduce VOC emissions from VOC-contaminated soil during soil removal activities and transport

► Applicability

- Excavating, grading, handling and treating VOC-contaminated soil as a result of leakage from storage or transfer operations, accidental spillage or other deposition
 - Excavation of underground storage tank and/or transfer piping
- Excludes sites with less than 1 cubic yard of contaminated soil

Rule 1166 – Key Elements

Mitigation Plan

Apply for, obtain, and operate a mitigation plan prior to commencement of excavation or handling of VOC contaminated soil

Notify Executive Officer

Notify Executive Officer 24 hours prior excavation and re-notification if excavation does not commence on start date

Monitor for VOC Contamination

Monitor VOC contamination once every 15 minutes – notify Executive Officer within 24 hours if VOC-contaminated soil detected (≥ 50 ppm)

Implementation of Mitigation Plan

When VOC-contaminated soil is detected implement mitigation plan

Rule 1166 – Requirements When VOC-Contaminated Soil is Detected

VOC = 50 – 1,000 ppm

- Implement Mitigation Plan
- Stockpiles
 - Segregate stockpiles into contaminated and non-contaminated
 - Spray contaminated stockpiles with water and/or approved vapor suppressant
 - Cover contaminated stockpiles with plastic sheeting
 - Inspect daily
- Record keeping
 - Generator, transporter and storage/treatment facilities
- Treat/remove soil within 30 days of excavation
 - Requires permits for on-site treatment equipment (triggers Rule 1401)
- Loading truck requirements

VOC \geq 1,000 ppm

- Requirements for VOC Between 50 and 1,000 ppm PLUS
- Notify the Executive Officer within 1 hour of VOC detection
- Within 15 minutes, place the soil in sealed containers or transport off site

Rule 403 – Fugitive Dust

▶ Purpose

- ▶ Reduce particulate matter emissions from anthropogenic (man-made) fugitive dust sources

▶ Applicability

- ▶ Earth moving activities, construction/demolition, disturbed surface area, heavy- and light-duty vehicular movement
- ▶ Open storage piles where there is an accumulation of bulk material ≥ 3 feet high and ≥ 150 square feet
- ▶ Disturbed surface area – earth's surface that has been modified from its undisturbed natural soil condition
- ▶ Excludes dairy farms, emergency operations, operations for essential utilities, sandblasting operations, and certain confined animal facilities agricultural vegetative crop operations, and weed abatement operations

Key Elements of Rule 403

Performance Standards

1. Dust emissions shall not be:
 - Visible beyond the property line or
 - Exceed 20% opacity, if dust is the result of a motorized vehicle
2. PM10 Levels shall not exceed $50 \mu\text{g}/\text{m}^3$

Best Available Control Measures

All active operations shall utilized the applicable best available control measures (Rule 403 Table 1)

Track Out

Track out shall not extend beyond 25 feet

Rule 403 – Requirements for Medium and Large Operations

Operations > 5 Acres or 100 Cubic Yards/Day (Medium)

- Vehicle Egress Measures
 - Pad with washed gravel
 - Pave surface
 - Wheel shaker/wheel spreading device
 - Wheel washing system

Operations > 50 Acres or 5,000 Cubic Yards/Day (Large)

- Requirements for Medium Operations PLUS
- Notify the Executive Officer of Large Operation
- Maintain Daily Records
- Install project signage
- Identify a dust control supervisor
- Additional dust control measures (Rule 403 Table 2)
- Contingency measures if Performance Standards not met (Rule 403 Table 3)

Rule 403 – Structure of Control Measures

Best Available Control Measures (Table 1)

Applicable to all operations
20 categories of general control measures with suggested guidance options

Dust Control Measures for Large Operations (Table 2)

Applicable to Large Operations (>50 Acres or 5,000 Cubic Yards/Day)
6 categories with specific control actions
Control actions are more specific than guidance in Table 1

Contingency Control Measures for Large Operations (Table 3)

Applicable to Large Operations (>50 Acres or 5,000 Cubic Yards/Day) **IF** performance standards are not met
6 categories with contingency measures that are more stringent than measures in Table 2

Rule 402 – Nuisance

► Purpose

- Restrict discharge of air contaminants or materials which may cause injury, detriment, nuisance, or annoyance to the public, endanger the comfort, repose, health or safety of the public, or cause injury or damage to businesses or properties

► Applicability

- Discharge of air contaminants or materials in quantities to create a nuisance

Summary of Regulatory Framework

- ▶ Elements of Rule 1166 such as notification and some control measures can be incorporated in Proposed Rule 1466
- ▶ Rule 403 would apply earth-moving activities with soils contaminated with metals and other toxic particulates, however, if the project is not a Large Operation only Table 1 BACM measures would be required
 - ▶ Measures in Tables 2 and 3 will be more health protective minimizing exposure to toxic air contaminants
 - ▶ Considering use of similar type of Performance Standards
- ▶ Rule 402 sites nuisances, but no specific provisions for toxic air contaminants

Objective of Proposed Rule 1466

- ▶ Provide guidance to other agencies and entities conducting soil clean-up activities for soil that contains toxic particulates in order to:
 - ▶ Minimize re-entrainment of toxic particulates into the air
 - ▶ Minimize exposure of toxic particulates to nearby receptors
- ▶ Requirements intended to be incorporated in other agencies' clean-up plans

General Approach

- ▶ Sites that contain toxic air contaminants of concern that may present a threat to public health during earth-moving activities and designated:
 - ▶ As a clean-up site by EPA, DTSC, or Water Board; or
 - ▶ By the Executive Officer that has the potential to result in exposure to toxic air contaminants during soil movement activities based on the level of toxic air contaminant(s) in the soil or proximity to sensitive receptors

Toxic Air Contaminants of Concern

- ▶ Toxic air contaminants of concern selected from those commonly found at contaminated sites with high health effects
- ▶ Toxic Air Contaminants of Concern:
 - ▶ Arsenic
 - ▶ Asbestos
 - ▶ Cadmium
 - ▶ Hexavalent chromium
 - ▶ Lead
 - ▶ Mercury
 - ▶ Nickel

Initial Concepts for Proposed Rule 1466

- ▶ Notifications
 - ▶ Notify the Executive Officer
- ▶ Signage
 - ▶ Install and maintain signage
- ▶ Performance Standards
 - ▶ Similar to Rule 403

Initial Concepts for Proposed Rule 1466 *(continued)*

- ▶ Prior to and During Earth-Moving Activities
 - ▶ Physical barriers – wind screen
 - ▶ Control measures to minimize fugitive dust during earth moving activities
 - ▶ On-site compliance person
- ▶ Stockpiles
 - ▶ Similar to Rule 1166 Requirements
- ▶ Loading Truck Requirements
 - ▶ Loading and unloading requirements
 - ▶ Transportation requirements
 - ▶ Vehicle egress measures to minimize track-out

Initial Concepts for Proposed Rule 1466 *(continued)*

- ▶ Housekeeping
 - ▶ Cleaning provisions in and around the facility to minimize re-entrainment of toxic emissions
- ▶ Additional requirements for sites near or at sensitive receptors
 - ▶ Work only at specified hours
 - ▶ Considering other requirements to further minimize exposure
- ▶ Considering additional requirements if high concentrations and/or large operations
- ▶ Considering contingency measures

Schedule

- ▶ TBD Additional Working Groups
- ▶ April 2017 Public Workshop
- ▶ May 19, 2017 Stationary Source Committee
- ▶ June 2, 2017 Set Hearing
- ▶ July 7, 2017 Public Hearing

SCAQMD Contacts

Rule Development

Uyen-Uyen Vo, uvo@aqmd.gov, (909) 396-2238

Michael Morris, mmorris@aqmd.gov, (909) 396-3282

General Questions

Susan Nakamura, snakamura@aqmd.gov, (909) 396-3105