BOARD MEETING DATE: June 4, 2021 AGENDA NO. 32

PROPOSAL: Determine that Proposed Amendments to Rule 1466 - Control of Particulate Emissions from Soils with Toxic Air Contaminants, Are Exempt from CEQA; and Amend Rule 1466

SYNOPSIS: Rule 1466 seeks to minimize the amount of off-site fugitive dust emissions containing toxic air contaminants by reducing particulate emissions in the ambient air as a result of earth-moving activities. Proposed Amended Rule 1466 will clarify and streamline existing provisions, update monitoring requirements, enhance dust control measures, revise alternative provisions, and add additional notification and recordkeeping requirements.

COMMITTEE: Stationary Source, March 19, 2021, Reviewed

RECOMMENDED ACTIONS:
Adopt the attached Resolution:
1. Determining that the proposed amendments to Rule 1466 - Control of Particulate Emissions from Soils with Toxic Air Contaminants are exempt from the requirements of the California Environmental Quality Act; and
2. Amending Rule 1466 - Control of Particulate Emissions from Soils with Toxic Air Contaminants.

Wayne Nastri
Executive Officer

SR:SN:MM:UV:CN

Background

Rule 1466 - Control of Particulate Emissions from Soils with Toxic Air Contaminants is designed to minimize fugitive dust emissions containing toxic metals, pesticides, herbicides, polychlorinated biphenyls, and other toxic air contaminants during earth-moving activities from sites for which another agency or the Executive Officer have determined that the soil contains toxic air contaminant(s). Rule 1466 requires ambient monitoring of PM_{10} during earth-moving activities and requires implementation of a series of dust control measures to minimize exposure to the public. Additional requirements include notifications, recordkeeping, and signage. Currently, Rule 1466

allows alternative dust control measures, ambient dust concentration limits, signage, and other alternative provisions upon Executive Officer approval.

Rule 1466 was adopted on July 7, 2017. Since its adoption, staff has identified areas within the rule where additional clarity is needed as well as areas to streamline implementation for both the affected sources and South Coast AQMD staff.

Public Process
Development of Proposed Amended Rule 1466 (PAR 1466) was conducted through a public process. Two working group meetings were held remotely on January 14, 2021 and February 5, 2021. The Instrument Sub-Committee Working Group Meeting was held remotely on March 23, 2021. A Public Workshop was held remotely on March 4, 2021.

Proposed Amendments
PAR 1466 will clarify and streamline existing monitoring, fencing, and stockpiling requirements. Specifically, PAR 1466 will revise the requirements for pre-approved monitors, PM_{10} monitoring and calculations, and wind monitoring. PAR 1466 will also require additional quality assurance/quality control procedures for monitors. Additionally, in an effort to address comments from operators, PAR 1466 will provide an option to allow use of fencing with either a specified shade value or porosity. PAR 1466 will also increase the frequency of stabilizing or covering stockpiles and extend the applicability of enhanced dust control measures to sites adjoining schools, joint use agreement properties and adjacent athletic areas. PAR 1466 will replace alternative provisions with additional options for dust control measures and remove alternative ambient dust concentration limits in order to streamline implementation.

Key Issues and Responses
Through the rulemaking process, staff has worked with the stakeholders to address comments and resolve key issues. Staff is not aware of any remaining key issues.

California Environmental Quality Act
Pursuant to the California Environmental Quality Act (CEQA) Guidelines Sections 15002(k) and 15061, the proposed project is exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3). A Notice of Exemption has been prepared pursuant to CEQA Guidelines Section 15062 and is included as Attachment H to this Board letter. If the proposed project is approved, the Notice of Exemption will be electronically filed with the State Clearinghouse of the Governor's Office of Planning and Research to be posted on their CEQAnet Web Portal, which may be accessed via the following weblink: https://ceqanet.opr.ca.gov/search/recent. In addition, the Notice of Exemption will be electronically posted on the South Coast AQMD's webpage which can be accessed via the following weblink: http://www.aqmd.gov/nav/about/public-notices/ceqa-notices/notices-of-exemption/noe---year-2021. The electronic filing and posting of the Notice of Exemption is being implemented in accordance with Governor

Newsom's Executive Orders N-54-20 and N-80-20 issued on April 22, 2020 and September 23, 2020, respectively, for the State of Emergency in California as a result of the threat of COVID-19.

Socioeconomic Analysis

PAR 1466 is expected to affect an estimated 32 clean-up sites per year across the four-county area. The proposed amendments would require affected sites to purchase additional equipment to meet the PM_{10} monitoring requirements and dust minimization provisions of the rule. The proposed amendments would also require additional fugitive dust suppression and soil stabilization measures.

The average annual increase in cost per site is estimated to be less than $2,100 and the total annual increase in cost is expected to be about $67,000 across the affected sites. About 47 percent of the total compliance costs affect the industrial sector of real estate lessors. The regional economic impacts of PAR 1466 are expected to be minimal.

AQMP and Legal Mandates

Pursuant to Health & Safety Code Section 40460 (a), South Coast AQMD is required to adopt an AQMP demonstrating compliance with all federal regulations and standards. South Coast AQMD is required to adopt rules and regulations that carry out the objectives of the AQMP. PAR 1466 is an air toxics control measure (TXM-04) in the 2016 AQMP, but is not a control measure for attainment of state or federal regulations and standards. PAR 1466 is needed to clarify, update, and enhance provisions addressing monitoring, dust control measures, signage, and notifications to ensure the provisions are enforceable, provide clarification and further minimize fugitive dust emissions to the surrounding community from toxic clean-up sites.

Implementation and Resource Impacts

Existing staff resources are sufficient to implement the proposed amendments.

Attachments

A. Summary of Proposal
B. Key Issues and Responses
C. Rule Development Process
D. Key Contacts List
E. Resolution
F. Proposed Amended Rule 1466
G. Final Staff Report
H. Notice of Exemption from CEQA
I. Board Meeting Presentation

ATTACHMENT A

SUMMARY OF PROPOSAL

Proposed Amended Rule 1466 - Control of Particulate Emissions from Soils with Toxic Air Contaminants

Monitoring Requirements
• Update PM_{10} monitor approval requirements in Appendix 1 – Rule 1466 Approved PM_{10} Monitors
• Include a provision allowing operators to move monitors when there is a wind direction change
• Require additional quality assurance/quality control procedures for monitors
• Revise the PM_{10} calculation methodology
  o Require calculation of the two-hour PM_{10} average concentration as a rolling average every minute starting January 1, 2022
  o Clarify that PM_{10} average calculation restarts when resuming earth-moving activities after addressing a PM_{10} concentration exceedance
• Revise wind monitoring requirements
 	
Dust Control Measures
• Extend enhanced dust control measures for schools, joint use agreement properties, and adjacent athletic areas to sites adjoining a school, joint use agreement property, or adjacent athletic area
• Increase frequency of stabilization or covering of stockpiles and dust sources to all times when earth-moving activities and monitoring are not occurring
• Clarify daily stockpile inspection requirement to include days when no earth-moving activities are occurring
• Allow option to install fencing that has a shade value or opacity of 85 ± 5% windscreen specification
 	
Alternative Provisions
• Removes provisions that allow use of alternatives for PM_{10} limits, PM_{10} monitoring methods, PM_{10} calculation methodologies, dust control measures, and direct soil loading for linear trenching for natural gas, power, sewer, and water projects and excavation activities less than 500 cubic yards of soil

ATTACHMENT B

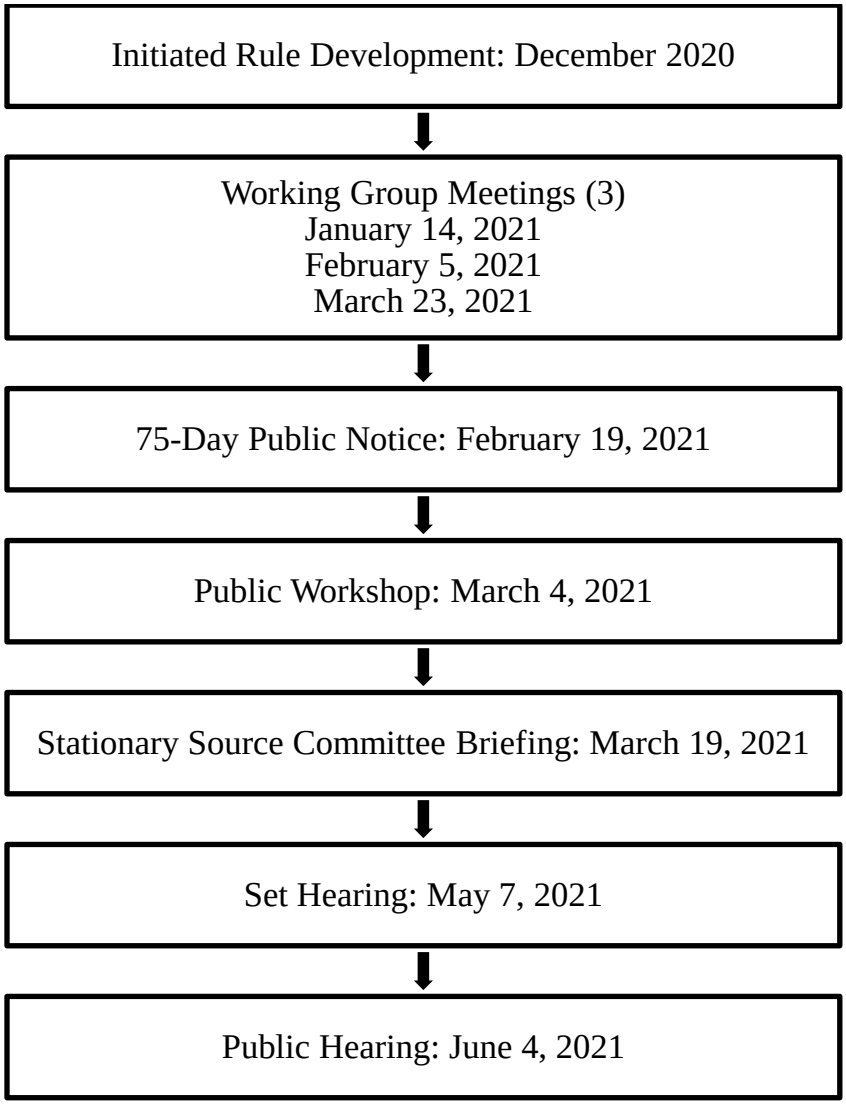
KEY ISSUES AND RESPONSES

Proposed Amended Rule 1466 – Control of Particulate Emissions from Soils with Toxic Air Contaminants
Through the rulemaking process staff has worked with stakeholders to address a variety of issues. Staff is not aware of any outstanding key issues

ATTACHMENT C

RULE DEVELOPMENT PROCESS

Proposed Amended Rule 1466 – Control of Particulate Emissions from Soils with Toxic Air Contaminants



6 months spent in rule development.
1 Public Workshop.
3 Working Group Meetings.

ATTACHMENT D
KEY CONTACTS LIST

Proposed Amended Rule 1466 – Control of Particulate Emissions from Soils with Toxic Air Contaminants

AECOM
Aeroqual
BlueScape Environmental
The Boeing Company
California Department of Toxic Substances Control
Eco-Rental Solutions LLC
Field Environmental Instruments, Inc.
Health Science Associates
Los Angeles Unified School District
Met One Instruments, Inc.
National Demolition
Panacea, Inc.
Pine Environmental Services, Inc.
RES Environmental Inc.
SailBri Cooper, Inc.
Southern California Edison
Southern California Alliance of Publicly Owned Treatment Works
Specto Technology
Thermo Fisher Scientific
Torrance Logistics Company LLC
TSI

ATTACHMENT E

RESOLUTION NO. 21-_____

A Resolution of the Governing Board of the South Coast Air Quality Management District (South Coast AQMD) determining that Proposed Amended Rule 1466 – Control of Particulate Emissions from Soils with Toxic Air Contaminants is exempt from requirements of the California Environmental Quality Act (CEQA).

A Resolution of the South Coast AQMD Governing Board amending Rule 1466 – Control of Particulate Emissions from Soils with Toxic Air Contaminants.

WHEREAS, the South Coast AQMD Governing Board finds and determines that Proposed Amended Rule 1466 is considered a "project" as defined by CEQA; and

WHEREAS, the South Coast AQMD has had its regulatory program certified pursuant to Public Resources Code Section 21080.5 and CEQA Guidelines Section 15251(l), and has conducted a CEQA review and analysis of the proposed project pursuant to such program (South Coast AQMD Rule 110); and

WHEREAS, the South Coast AQMD Governing Board finds and determines after conducting a review of the proposed project in accordance with CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA, and CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA, that the proposed project is exempt from CEQA; and

WHEREAS, the South Coast AQMD Governing Board finds and determines that since the proposed project is designed to enhance ongoing efforts to minimize off-site fugitive dust emissions occurring during earth-moving activities of soil containing toxic air contaminants which can be achieved without involving construction activities, it can be seen with certainty that there is no possibility that the proposed project may have a significant adverse effect on the environment, and is therefore, exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption; and

WHEREAS, the South Coast AQMD staff has prepared a Notice of Exemption for the proposed project that is completed in compliance with CEQA Guidelines Section 15062 – Notice of Exemption; and

WHEREAS, the South Coast AQMD staff conducted a Public Workshop regarding Proposed Amended Rule 1466 on March 4, 2021; and

WHEREAS, Proposed Amended Rule 1466 and supporting documentation, including but not limited to, the Notice of Exemption, the Socioeconomic Impact Assessment that is contained in the Final Staff Report, and the Final Staff Report were presented to the South Coast AQMD Governing Board and the South Coast AQMD Governing Board has reviewed and considered this information, as well as has taken and considered staff testimony and public comment prior to approving the project; and

WHEREAS, the South Coast AQMD Governing Board finds and determines, taking into consideration the factors in Section (d)(4)(D) of the Governing Board Procedures (Section 30.5(4)(D)(i) of the Administrative Code), that the modification to Proposed Amended Rule 1466 since the notice of public hearing was published is a clarification that meets the same air quality objective and is not so substantial as to significantly affect the meaning of Proposed Amended Rule 1466 within the meaning of Health and Safety Code Section 40726 because the change to subparagraph (e)(12)(A) simply clarifies that the reference to South Coast AQMD *Rule 403 Fugitive Dust Implementation Handbook* or Volumes I and II of South Coast AQMD's *Dust Control in the Coachella Valley* is to "the most current version" and: (a) the change does not impact emission reductions, (b) the change does not affect the number or type of sources regulated by the rule, (c) the change is consistent with the information contained in the notice of public hearing, and (d) the consideration of the range of CEQA alternatives is not applicable because the proposed project is exempt from CEQA; and

WHEREAS, Proposed Amended Rule 1466 will not be submitted for inclusion into the State Implementation Plan; and

WHEREAS, Health and Safety Code Section 40727 requires that prior to adopting, amending or repealing a rule or regulation, the South Coast AQMD Governing Board shall make findings of necessity, authority, clarity, consistency, non-duplication, and reference based on relevant information presented at the public hearing and in the Final Staff Report; and

WHEREAS, the South Coast AQMD Governing Board has determined that a need exists to adopt Proposed Amended Rule 1466 to protect public health by further minimizing fugitive dust emissions from earth-moving activities at sites that contain certain toxic air contaminants; and

WHEREAS, the South Coast AQMD Governing Board obtains its authority to adopt, amend or repeal rules and regulations from Sections 39002,

39650 et seq., 40000, 40001, 40440, 40441, 40702, 40725 through 40728, 41508, 41511, 41700, and 41706 of the Health and Safety Code; and

WHEREAS, the South Coast AQMD Governing Board has determined that Proposed Amended Rule 1466 is written and displayed so that its meaning can be easily understood by persons directly affected by it; and

WHEREAS, the South Coast AQMD Governing Board has determined that Proposed Amended Rule 1466 is in harmony with and not in conflict with, or contradictory to, existing statutes, court decisions, or state or federal regulations; and

WHEREAS, the South Coast AQMD Governing Board has determined that Proposed Amended Rule 1466 does not impose the same requirements as any existing state or federal regulations, and the proposed amended rule is necessary and proper to execute the powers and duties granted to, and imposed upon, the South Coast AQMD; and

WHEREAS, the South Coast AQMD Governing Board, in adopting Proposed Amended Rule 1466, references the following statutes which the South Coast AQMD hereby implements, interprets or makes specific: Healthy and Safety Code Sections 41700 (nuisance) and Federal Clean Air Act (CAA) Section 112 (Hazardous Air Pollutants), and Federal CAA Section 116 (Retention of State Authority); and

WHEREAS, Health and Safety Code Section 40727.2 requires the South Coast AQMD to prepare a written analysis of existing federal air pollution control requirements applicable to the same source type being regulated whenever it adopts, or amends a rule, and that the South Coast AQMD's comparative analysis of Proposed Amended Rule 1466 is included in the Final Staff Report; and

WHEREAS, the South Coast AQMD Governing Board has determined that the Socioeconomic Impact Assessment of Proposed Amended 1466, as contained in the Final Staff Report, is consistent with the March 17, 1989 Governing Board Socioeconomic Resolution for rule adoption; and

WHEREAS, the South Coast AQMD Governing Board has determined that the Socioeconomic Impact Assessment for Proposed Amended Rule 1466, as contained in the Final Staff Report, is consistent with the provisions of Health and Safety Code Sections 40440.8 and 40728.5, and that Health and Safety Code 40920.6 is not applicable to rules regulating toxic air contaminants; and

WHEREAS, the South Coast AQMD Governing Board has determined that Proposed Amended Rule 1466 will result in increased costs to affected industries, with a total annualized cost as specified in the Final Staff Report; and

WHEREAS, the South Coast AQMD Board has actively considered the Socioeconomic Impact Assessment, as contained in the Final Staff Report, and has made a good faith effort to minimize such impacts; and

WHEREAS, a public hearing has been properly noticed in accordance with all provisions of Health and Safety Code Section 40725 and 40440.5; and

WHEREAS, the South Coast AQMD Governing Board has held a public hearing in accordance with all provisions of law; and

WHEREAS, the South Coast AQMD Governing Board specifies that the Planning and Rules Manager overseeing the rule development for Proposed Amended Rule 1466 as the custodian of the documents or other materials which constitute the record of proceedings upon which the adoption of this proposed amended rule is based, which are located at the South Coast Air Quality Management District, 21865 Copley Drive, Diamond Bar, California; and

NOW, THEREFORE BE IT RESOLVED, that the South Coast AQMD Governing Board does hereby determine, pursuant to the authority granted by law, that the proposed project is exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption. This information was presented to the South Coast AQMD Governing Board, whose members exercised their independent judgment and reviewed, considered, and approved the information therein prior to acting on the proposed project; and

BE IT FURTHER RESOLVED, that the South Coast AQMD Governing Board does hereby adopt, pursuant to the authority granted by law, Proposed Amended Rule 1466 as set forth in the attached, and incorporated herein by reference.

DATE: _____ _____

CLERK OF THE BOARDS

ATTACHMENT F

(Adopted July 7, 2017)(Amended December 1, 2017)
(Amended June 4, 2021)

PROPOSED AMENDED RULE 1466. CONTROL OF PARTICULATE EMISSIONS FROM SOILS WITH TOXIC AIR CONTAMINANTS

[Rule Index to be included after amendment]

(a) Purpose

The purpose of this rule is to minimize the amount of off-site fugitive dust emissions containing toxic air contaminants by reducing particulate emissions in the ambient air as a result of earth-moving activities, including, dredging, excavating, grading, earth-cutting and filling, loading, unloading, handling, mechanized land clearing, treating, stockpiling, transferring, and removing of soil that contains applicable toxic air contaminants, from sites that meet the applicability requirements of subdivision (b).

(b) Applicability

(1) This rule shall apply to any owner or operator conducting earth-moving activities of soil with applicable toxic air contaminant(s) as defined in paragraph ~~(c)(15)~~(c)(16) that have been identified as contaminant(s) of concern at a site that has been designated and notified by:

(A) The U.S. Environmental Protection Agency (U.S. EPA) as a Superfund National Priorities List site;

(B) The California Department of Toxic Substances Control (DTSC) as a Brownfield or Cleanup Program site;

(C) The State Water Resources Control Board (State Water Board) or Regional Water Quality Control Board (Regional Water Board) as a Site Cleanup Program site;

(D) A county, local, or state regulatory agency as a Hazardous Material Release site, as defined in California Health and Safety Code Section 25260~~, effective January 1, 2018~~; or

(E) The Executive Officer pursuant to subdivision (i).

(2) This rule shall not apply to:

(A) Earth-moving activities of soil with applicable toxic air contaminant(s) of less than 50 cubic yards; or

(B) Removal of soil for sampling purposes.

(c) Definitions

(1) ADEQUATELY WET ~~is~~ means the condition of being sufficiently mixed or penetrated with water to prevent the release of particulates or visible emissions. The process by which an adequately wet condition is achieved is by using a dispenser or water hose with a nozzle that permits the use of a fine, low-pressure spray or mist.

(2) ADJACENT ATHLETIC AREA ~~is~~ means any outdoor athletic field or park where youth organized sports occur that is in physical contact or separated solely by a public roadway or other public right-of-way to a SCHOOL~~school or early education center~~.

(3) ADJOINING means in physical contact with or separated solely by a public roadway or other public right-of-way.

(~~3~~4) CHEMICAL STABILIZERS means ~~are~~ any non-toxic chemicals that are used to bind soil together to control FUGITIVE DUST emissions ~~dust suppressant~~. ~~The chemical stabilizers shall meet any specifications, criteria, or tests required by any federal, state, or local agency or any applicable law, rule, or regulation. Unless otherwise indicated, the use of a non-toxic chemical stabilizer shall be of sufficient concentration and application frequency to maintain a stabilized surface and no less than what is specified by the manufacturer.~~

(~~4~~5) DISTURBED SURFACE AREA means ~~is~~ a portion of the earth's surface which has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed natural soil condition, thereby increasing the potential for ~~fugitive dust~~ FUGITIVE DUST. This definition excludes those areas which have:

(A) Been restored to a natural state, such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby natural conditions;

(B) Been paved or otherwise covered by a permanent structure; or

(C) Sustained a vegetative ground cover of at least 70 percent of the native cover for a particular area for at least 30 days.

(~~5~~6) DUST SUPPRESSANTS means~~are~~ water~~,~~ or hygroscopic materials, other than ~~or chemical stabilizers~~ CHEMICAL STABILIZERS, that are used as a treatment material to reduce ~~fugitive dust~~ FUGITIVE DUST emissions.

~~(6) (EARLY EDUCATION CENTER is any public or private property, used for purposes of education as defined as an Early Learning and Developmental Program by the U.S. Department of Education, but does not include any property in which education is primarily conducted in private homes. Early education center includes~~

~~any building or structure, playground, athletic field, or other areas of early education center property.~~

(7) EARTH-MOVING ACTIVITIES ~~are~~means, for the purpose of this rule, any activity on a site that meets the applicability requirements of subdivision (b) where ~~soil with applicable toxic air contaminant(s)~~ SOIL WITH APPLICABLE TOXIC AIR CONTAMINANT(S) ~~are~~ is being moved or uncovered, ~~shall include~~ including~~, but not be limited to the following~~: dredging, excavating, grading, earth-cutting and filling operations, loading~~, or~~ unloading, handling, mechanized land clearing, ~~and~~ treating, transferring, removing, and adding to or removing from STOCKPILES~~stockpiles~~, and vehicular movement of equipment associated with these activities. EARTH-MOVING ACTIVITIES do not include vehicular movement from: delivery vehicles, passenger vehicles transporting personnel to and from the site, vehicles used for administrative purposes, vehicles transporting personnel for the purposes of soil sampling and conducting ambient PM_{10} monitoring requirements, watering trucks, and equipment used exclusively on a portion(s) of the site where there is no SOIL WITH APPLICABLE TOXIC AIR CONTAMINANT(S).

(8) FUGITIVE DUST ~~is~~means, for the purpose of this rule, any solid particulate matter that is in contact with ambient air and has the potential to become airborne, other than solid particulate matter that is emitted from an exhaust stack.

(9) JOINT USE AGREEMENT PROPERTY means~~is~~ a shared public facility in which a formal agreement exists between a SCHOOL ~~school or early education center~~ and another government entity setting forth the terms and conditions for shared use.

(10) OWNER OR OPERATOR ~~is~~means any firm, business establishment, association, partnership, corporation or individual, whether acting as principal, agent, employee, contractor, or other capacity.

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

(12) PROPERTY LINE means~~is~~ the boundary of an area where a person has the legal use or possession of the property. Where such property is divided into one or more

sub-tenancies, the property line(s) shall refer to the boundaries dividing the areas of all sub-tenancies.

(13) SCHOOL ~~is~~ means any public or private education center, including juvenile detention facilities with classrooms~~and education centers serving as the students' place of residence (e.g., boarding schools)~~, used for ~~purposes of~~ the education of more than 12 children at the education center in kindergarten ~~or any~~through grade~~s 1 to~~ 12~~, inclusive, but does not include any school in which education is primarily conducted in private homes~~. A SCHOOL also includes an Early Learning and Developmental Program by the U.S. Department of Education or any state or local early learning and development programs such as preschools, Early Head Starts, Head Start, First Five, and Child Development Centers. A SCHOOL does not include any private education center in which education is primarily conducted in private homes. A SCHOOL ~~School~~ includes any building or structure, playground, athletic field, or other area~~s~~ of school property.

(14) SLAG means, for the purpose of this rule, the by-product material that is separated from metals during smelting or refining of ore.

(~~14~~15) SOIL ~~is~~means dirt, sand, gravel, clay, SLAG, and aggregate material less than two inches in length or diameter, and other organic or inorganic particulate matter.

(~~15~~16) SOIL WITH APPLICABLE TOXIC AIR CONTAMINANT(S) means, for the purpose of this rule, ~~soil~~ SOIL that has been identified by the U.S. EPA, the DTSC, the State Water Board, the Regional Water Board, or a county, local, or state regulatory agency, to contain one or more of the applicable toxic air contaminants ~~as~~ listed in Table I that exceed action levels as specified by the designating agency, or~~, effective January 1, 2018,~~ soil that has been identified by the Executive Officer to contain one or more of the toxic air contaminants listed in Rule 1401 – New Source Review of Toxic Air Contaminants (Table I) or Hazardous Air Pollutants Identified as Toxic Air Contaminants as listed in California Code of Regulations Section 93001, excluding volatile organic compounds regulated under Rule 1166 – Volatile Organic Compound Emissions from Decontamination of Soil.

(~~16~~17) STABILIZED SURFACE means~~is~~ any previously ~~disturbed surface area~~ DISTURBED SURFACE AREA or ~~stockpile~~ STOCKPILE, which through the application of CHEMICAL STABILIZERS or ~~dust suppressants~~ DUST SUPPRESSANTS, shows visual or other evidence of surface crusting and is resistant to ~~wind-driven fugitive dust~~ WIND-DRIVEN FUGITIVE DUST, and is demonstrated to be stabilized. Stabilization can be demonstrated by one or more of

the applicable test methods contained in the most current version of the South Coast AQMD *Rule 403 Fugitive Dust Implementation Handbook* or in Volumes I and II of South Coast AQMD's *Dust Control in the Coachella Valley*.

(~~17~~18) STOCKPILE means~~is~~ any accumulation of ~~soil~~SOIL, which is not fully enclosed~~,~~ ~~covered, or chemically stabilized,~~ and which attains a height of three feet or more and a total surface area of 150 square feet or more.

(~~18~~19) TRACK-OUT ~~is~~means, for the purpose of this rule, any ~~soil~~ SOIL that adheres to and agglomerates on the exterior surface of motor vehicles, haul trucks, and equipment (including tires) that has been released onto a ~~paved road~~ PAVED ROAD and that can be removed by a vacuum sweeper under normal operating conditions.

(~~19~~20) WIND-DRIVEN FUGITIVE DUST means~~is~~ visible emissions from any ~~disturbed surface area~~ DISTURBED SURFACE AREA, which is generated by wind action alone.

~~(20) WIND GUST is the maximum instantaneous wind speed as measured by an anemometer.~~

(d) Monitoring Requirements

(1) When on-site earth-moving activities ~~or vehicular movement~~ occur~~s~~, the owner or operator shall conduct continuous direct-reading near real-time ambient monitoring of PM_{10} concentrations pursuant to paragraph (d)(3).

(2) If the PM_{10} concentration ~~averaged over two hours~~ exceeds 25 micrograms per cubic meter, as measured pursuant to paragraph (d)(3) and as determined pursuant to paragraph ~~(d)(4)~~(d)(9), the owner or operator shall cease on-site earth-moving activities, apply dust suppressant to fugitive dust sources, or implement other dust control measures as necessary until the PM_{10} concentration is equal to or less than 25 micrograms per cubic meter averaged over 30 minutes.

~~(A) The owner or operator or designating agency may request an alternative PM_{10} limit from the Executive Officer provided the exposure to toxic air contaminants from fugitive dust from earth-moving activities at the proposed PM_{10} concentration level is health protective to the public. The owner or operator or designating agency shall provide the Executive Officer the information specified in subparagraphs (i)(1)(A) through (H) and substantiate its position that an alternative PM_{10} limit is health protective. Use of an alternative PM_{10} limit must be submitted and approved by the Executive Officer as specified in subdivision (j).~~

(3) The owner or operator conducting on-site earth-moving activities shall install PM_{10} monitors and conduct ambient PM_{10} monitoring ~~as follows~~:

(A) In accordance with a U.S. EPA-approved equivalent method for PM_{10} monitoring or using a Rule 1466 Approved PM_{10} Monitor~~an alternative method approved by the Executive Officer. The owner or operator or designating agency shall select an alternative PM_{10} method as specified in Appendix 1. Use of an alternative PM_{10} method must be submitted and approved by the Executive Officer as specified in subdivision (j)~~;

(B) Using a minimum of ~~one~~ two ~~upwind~~ monitors, placing each monitor as close to the property line as feasible, where:

(i) ~~the location of the upwind monitor(s) are~~One or more monitors is in the seasonal prevailing wind direction upwind of the area(s) of on-site earth-moving activity, indicative of background PM_{10} levels, and not generally influenced by fugitive dust sources from the site; and

~~(C)~~ (ii) ~~Using a minimum of one downwind~~ One or more monitors ~~placed~~ is in the seasonal prevailing wind direction downwind of ~~each~~ the area(s) of on-site earth-moving activity ~~and as close to the property line as feasible~~;

(~~D~~C) Using PM_{10} monitors that are identical in: make and model~~;~~, settings~~;~~, ~~calibration;~~ and configuration; ~~and calibration, correction, and correlation factors.~~ and

(~~E~~D) ~~Operate, maintain, and calibrate~~Using ambient PM_{10} monitors that are operated, maintained, and calibrated in accordance with appropriate U.S. EPA-published documents for U.S. EPA-approved equivalent method~~(s)~~ for PM_{10} ~~or the alternative method approved by the Executive Officer,~~ and manufacturer's instructions~~; and~~.

(4) ~~(F)~~On and before December 31, 2021, the owner or operator shall ~~C~~collect ambient PM_{10} data with a data acquisition system (DAS) that is capable of logging direct-reading near real-time data providing the date, time, and PM_{10} concentration in micrograms per cubic meter every 10 minutes or less.

(5) On and after January 1, 2022, the owner or operator shall collect ambient PM_{10} data with a DAS that is capable of logging direct-reading near real-time data providing the date and time, calibrated to Pacific Standard Time (PST), and PM_{10} concentration in micrograms per cubic meter every 1 minute or less.

(6) On and after January 1, 2022, the owner or operator shall operate PM_{10} monitors with the heated sampler inlet on.

(7) On and after January 1, 2022, prior to conducting any on-site earth-moving activities, and weekly thereafter, the owner operator shall conduct intra-instrument precision tests with the PM_{10} monitors in accordance with *Appendix 2 – Procedures to Demonstrate Intra-Instrument Precision*, or make available documentation and supporting data certifying that such intra-instrument precision tests were run by an equipment rental company or other third party, that demonstrate an intra-instrument precision of:

(A) No more than 25 percent as calculated pursuant to Step 7a in *Appendix 2* when ambient PM_{10} concentrations are equal to or greater than 15 micrograms per cubic meter; or

(B) No more than 5 micrograms per cubic meter as calculated pursuant to Step 7b in *Appendix 2* when ambient PM_{10} concentrations are less than 15 micrograms per cubic meter.

(8) On and after January 1, 2022, each day prior to conducting on-site earth-moving activities, the owner or operator shall conduct a passing zero check on each PM_{10} monitor in accordance with:

(A) Steps 4 and 5 of *Appendix 2* that demonstrates an average PM_{10} concentration of 0 ± 3 micrograms per cubic meter; or

(B) Manufacturer's instructions if a monitor is operated using an auto-zero check procedure that directs filtered particle-free air into the measurement chamber.

(~~4~~9) The owner or operator shall calculate the PM_{10} concentration as a 120-minute rolling average ~~based on the PM_{10} concentration averaged over two hours, starting at the top of each hour~~, where:

(A) The initial average starts at the commencement of on-site earth-moving activities and ends 120 minutes after the commencement of on-site earth-moving activities;

(B) On and before December 31, 2021, the averages subsequent to the initial average specified in subparagraph (d)(9)(A) are to be calculated every 10 minutes and cover the previous 120-minute period;

(C) On and after January 1, 2022, the averages subsequent to the initial average specified in subparagraph (d)(9)(A) are to be calculated every 1 minute and cover the previous 120-minute period;

(~~A~~D) The PM_{10} concentration is ~~the absolute difference between the upwind and~~calculated by subtracting the results of the upwind monitor(s) from the downwind monitor(s) for the same averaging period;

(i) If the wind direction is in the seasonal prevailing wind direction, then the monitor(s) described pursuant to clause (d)(3)(B)(i) shall be designated as the upwind monitor(s) and the monitor(s) described pursuant to clause (d)(3)(B)(ii) shall be designated as the downwind monitor(s); and

(ii) If there is greater than a ± 90 degree change in wind direction from the seasonal prevailing wind direction, then the monitor(s) described pursuant to clause (d)(3)(B)(i) shall be designated as the downwind monitor(s) and the monitor(s) described pursuant to clause (d)(3)(B)(ii) shall be designated as the upwind monitor(s);

(~~B~~E) If there is more than one upwind monitor, the upwind result is the ~~two hour~~ average concentration of all upwind monitors for the same rolling averaging period;

(~~C~~F) If there is more than one downwind monitor, the downwind ~~average~~ result is the maximum ~~two hour average~~ concentration of any of the downwind monitors for the same rolling averaging period; ~~and~~

(G) On and before December 31, 2021, when on-site earth-moving activities resume after ceasing pursuant to paragraph (d)(2), the average shall start when on-site earth-moving activities resume and shall end 120 minutes after on-site earth-moving activities resume, and the subsequent averages are to be calculated every 10 minutes and shall cover the previous 120-minute period; and

(H) On and after January 1, 2022, when on-site earth-moving activities resume after ceasing pursuant to paragraph (d)(2), the average shall start when on-site earth-moving activities resume and shall end 120 minutes after on-site earth-moving activities resume, and the subsequent averages are to be calculated every one minute and shall cover the previous 120-minute period.

~~(D) The owner or operator or designating agency may use an alternative calculation methodology if the owner or operator or designating agency provides information to substantiate that all or some the PM_{10} concentration is the result of another source and not attributed to the earth-moving~~

~~activities of the site. Use of an alternative calculation methodology must be submitted and approved by the Executive Officer as specified in subdivision (j).~~

(10) An owner or operator that elects to move the monitors accordingly when there is a change in wind direction in place of meeting the requirements specified in clauses (d)(3)(B)(i), (d)(3)(B)(ii), (d)(9)(D)(i), and (d)(9)(D)(ii), shall:

(A) Place a minimum of one upwind monitor in the upwind direction of the area(s) of on-site earth-moving activity, indicative of background PM_{10} levels, and not generally influenced by fugitive dust sources from the site;

(B) Place a minimum of one downwind monitor in the downwind direction of the area(s) of on-site earth-moving activity; and

(C) Move the monitor(s) in subparagraph (d)(10)(A) to the new upwind location and the monitor(s) in subparagraph (d)(10)(B) to the new downwind location when there is a change in wind direction.

(11) In the event that a DAS fails to log ambient PM_{10} data pursuant to paragraph (d)(5) or that the data management system integrated with the PM_{10} monitor(s) and DAS(s) fails to calculate PM_{10} concentrations pursuant to subparagraph (d)(9)(C) due to a technical issue beyond the reasonable control of an owner or operator, including, but not limited to, internet connection disruptions and computer malfunctions, the owner or operator shall:

(A) Restore the DAS or data management system to working condition as soon as practicable and no later than the start of the next working day; and

(B) Manually record the PM_{10} concentration from the monitor(s) associated with the non-operational DAS once every 10 minutes or less and calculate the PM_{10} concentration pursuant to the averages specified in subparagraph (d)(9)(B) until the DAS is restored or calculate the PM_{10} concentration pursuant to the averages specified in subparagraph (d)(9)(B) until the data management system is restored.

(~~5~~12) When ~~earth-moving activities occur~~conducting ambient PM_{10} monitoring as required in paragraph (d)(1), the owner or operator shall monitor wind direction and speed ~~as specified in U.S. EPA *Quality Assurance Handbook for Air Pollution Measurement Systems, Volume IV: Meteorological Measurements*~~ using a minimum of one stationary anemometer or wind sensor that~~.~~:

(A) Is sited over open, level terrain within the project site with minimal obstructions to the wind flow at a minimum height of eight feet above grade;

(B) Meets the performance criteria of:

(i) Wind direction accuracy of ± 7 degrees and resolution of 1 degree; and

(ii) Wind speed accuracy of 2 miles per hour (mph) or ± 5 percent of the observed wind speed, whichever is greater, and resolution of 1 mph;

(C) Has a National Institute of Standards and Technology (NIST) Traceability certification;

(D) Is equipped with a data logger that records wind direction and speed data once every 1 minute or less and archives the recorded wind direction and speed data, including the date and time, calibrated to PST; and

(E) Is operated, calibrated, and maintained in accordance with manufacturer's specifications, but no less frequent than once every 6 months of cumulative operation.

(13) The Executive Officer may approve a PM_{10} monitor to be added as a Rule 1466 Approved PM_{10} Monitor if the PM_{10} monitor meets the specifications listed in *Appendix 1 – Rule 1466 Approved PM_{10} Monitors*. The request for a PM_{10} monitor to be added as a Rule 1466 Approved PM_{10} Monitor shall:

(A) Be submitted to Rule1466ApprovedMonitors@aqmd.gov;

(B) Include a description of the PM_{10} monitor, any accessories, and all monitor specifications; and

(C) Include documentation demonstrating compliance with each specification listed in *Appendix 1*.

(e) Requirements to Minimize Fugitive Dust Emissions

(1) On and before December 31, 2021, a~~A~~n owner or operator shall not conduct on-site earth-moving activities unless the area is surrounded with fencing that is a minimum of 6 feet tall and at least as tall as the height of the tallest stockpile, with a windscreen ~~with~~ that has a porosity of 50 ± 5 percent~~%~~. A section of the perimeter surrounding an on-site earth-moving activity area may be excluded from this requirement if that section:

(A) Has a solid physical barrier, such as a solid wall or other solid feature that minimizes air flow, that is a minimum of 6 feet tall but at least 6 inches taller than the height of the tallest stockpile; or

(B) Does not have on-site earth-moving activity occurring within 300 feet from the perimeter of that section.

(2) On and after January 1, 2022, an owner or operator shall not conduct on-site earth-moving activities unless the area is surrounded with fencing that is a minimum of 6 feet tall but at least 6 inches taller than the height of the tallest stockpile, with a windscreen that has a porosity of 50 ± 5 percent or a mesh windscreen that has a shade value or opacity of 85 ± 5 percent. A section of the perimeter surrounding an on-site earth-moving activity area may be excluded from this requirement if that section meets the conditions as specified in subparagraph (e)(1)(A) or (e)(1)(B).

(~~2~~3) An owner or operator conducting on-site earth-moving activities shall:

(A) Adequately wet to the depth of earth-moving activity and allow time for penetration; and

(B) Adequately wet at frequencies to prevent the generation of visible dust plumes.

(~~3~~4) An owner or operator that is moving vehicles on, within, or off a site ~~where earth-moving activities are occurring~~ shall:

(A) Post signs at all entrances of the site to designate the speed limit as 15 ~~miles per hour~~ mph;

(B) Stabilize the surface of all vehicular traffic and parking areas by applying gravel, paving, chemical stabilizers pursuant to paragraph (e)(13), or dust suppressant;

(C) Not allow any track-out outside of the property line ~~to extend beyond~~ that is 25 feet or more in cumulative length ~~of the property line~~. Remove any track-out at a minimum frequency of once each day using a vacuum equipped with a filter(s) rated by the manufacturer to achieve a 99.97~~%~~ percent ~~capture~~ control efficiency for 0.3 micron particles;

(D) Clean the soil from the exterior of trucks, trailers, and tires prior to the truck leaving the site, without the use of forced air; and

(E) ~~The owner or operator shall u~~Utilize at least one of the following measures ~~listed in clause (e)(3)(E)(i) through (e)(3)(E)(iv)~~ at each vehicle egress from the site to a ~~paved~~ public road:

(i) Install a pad consisting of washed gravel (minimum-size: ~~one~~ 1 inch), maintained in a clean condition, to a depth of at least ~~six~~ 6 inches and extending at least 30 feet wide and at least 50 feet long;

(ii) Pave the surface extending at least 100 feet from the property line and at least ~~20~~ 30 feet wide;

(iii) Utilize a wheel shaker/wheel spreading device consisting of raised dividers (rails, pipes, or grates) at least 24 feet long and ~~10~~ 30 feet wide; or

(iv) Install and utilize a wheel washing system to remove soil from tires and vehicle undercarriages.

(~~4~~5) An owner or operator conducting on-site earth-moving activities shall ensure that ~~result in the development of~~ stockpiles ~~of~~ with any soil with applicable toxic air contaminant(s) ~~shall~~ be:

(A) Segregated from non-contaminated stockpiles~~; from stockpiles with applicable toxic air contaminant(s) and~~

(B) Labelled with "South Coast AQMD Rule 1466 – Control of Particulate Emissions from Soils with Toxic Air Contaminant(s) Applicable Soil";

(~~B~~C) Maintained ~~stockpiles~~ to avoid steep sides or faces that exceed the angle of repose;

(~~C~~D) ~~Not create a stockpile that is~~No more than 400 cubic yards of soil; ~~and greater in height than the perimeter fencing and windscreen~~;

(~~D~~E) Maintained to minimize fugitive dust emissions containing toxic air contaminants by applying chemical stabilizers pursuant to paragraph (e)(13), ~~Apply~~ applying dust suppressant ~~to stockpiles~~, or completely covering pursuant to paragraph (e)(14); and

(~~E~~F) ~~At the end of each working day, e~~Either chemically stabilized pursuant to paragraph (e)(13) and/or completely covered pursuant to paragraph (e)(14) at all times when earth-moving activities and ambient PM_{10} monitoring are not occurring. ~~with 10 milliliter thick plastic sheeting that overlaps a minimum of 24 inches. The plastic sheeting shall be anchored and secured so that no portion of the soil is exposed to the atmosphere; and~~

~~(F) Daily, inspect stabilized or covered stockpiles. For a stabilized stockpile, such inspections shall include a demonstration of stabilization by one or more of the applicable test methods contained in SCAQMD *Rule 403 Fugitive Dust Implementation Handbook* or Volumes I and II of SCAQMD's *Dust Control in the Coachella Valley*. For a covered stockpile, such inspections shall include a visual inspection of all seams and plastic cover surfaces. Immediately re-stabilize or repair any holes, tears, or any other potential sources of fugitive toxic air contaminant emissions.~~

(~~5~~6) An owner or operator conducting truck and trailer loading activities of soil containing applicable toxic air contaminant(s) shall:

(A) Apply dust suppressant to material prior to loading;

(B) Empty the loader bucket slowly so that no visible dust plumes are generated;

(C) Minimize the drop height from the loader bucket;

(D) Maintain at least ~~six~~ 6 inches of space between the soil and the top of the truck bed and trailer while transporting within a site; and

(E) Completely ~~tarp~~cover the truck bed and trailer prior to leaving the site.

(~~6~~7) An owner or operator conducting truck and trailer unloading activities of soil containing applicable toxic air contaminant(s) shall:

(A) Apply dust suppressant to material prior to unloading; and

(B) Empty the trailer slowly so that no visible dust plumes are generated.

(~~7~~8) The owner or operator shall immediately remove any spilled soil ~~containing applicable toxic air contaminant(s)~~.

(~~8~~9) The owner or operator shall cease on-site earth-moving activities if the wind speed is greater than 15 ~~miles per hour (~~mph~~)~~ averaged over a 15-minute period or the instantaneous wind speed~~s~~ exceeds 25 mph.

(~~9~~10) During on-site earth-moving activities, the owner or operator shall have an on-site dust control supervisor that:

(A) Is employed by or contracted with the owner or operator;

(B) Is located on the site during working hours;

(C) Is in a position to expeditiously employ sufficient dust control measures to ensure compliance with all rule requirements;

(D) Has completed the South Coast AQMD Fugitive Dust Control Class and has been issued a valid Certificate of Completion for the class; and

(E) Has the following credentials, if asbestos is an applicable toxic air contaminant:

(i) Successfully completed the Asbestos Abatement Contractor/Supervisor course pursuant to the Asbestos Hazard Emergency Response Act (AHERA), and obtained and maintained accreditation as an AHERA Asbestos Abatement Contractor/Supervisor; and

(ii) Trained on the provisions of 40 CFR Part 61.145, 61.146, 61.147 and 61.152 (Asbestos NESHAP provisions) and Part 763, and ~~have~~ has the means ~~by which~~ to comply with these provisions.

(~~10~~11) ~~If earth-moving activities will not occur for three (3) or more consecutive days,~~ An owner or operator shall apply a chemical stabilizer pursuant to paragraph (e)(13) and/or use a cover pursuant to paragraph (e)(14) ~~to~~ on potential sources of fugitive dust when earth-moving activities are not occurring in the specific location(s) containing the potential source(s) of fugitive dust~~diluted to the concentration required to maintain a stabilized surface for the period of inactivity; re-stabilize as necessary~~.

(12) An owner or operator shall inspect daily, including days when no on-site earth-moving activities are occurring, labeled stockpiles pursuant to subparagraph (e)(5)(B) and stabilized or covered stockpiles pursuant to (e)(5)(F).

(A) For a stabilized stockpile, such inspections shall include a demonstration of stabilization by one or more of the applicable test methods contained in the most current version of the South Coast AQMD *Rule 403 Fugitive Dust Implementation Handbook* or Volumes I and II of South Coast AQMD's *Dust Control in the Coachella Valley*.

(B) For a covered stockpile, such inspections shall include a visual inspection of all seams and plastic cover surfaces to ensure that no portion of the soil is exposed to the atmosphere.

(13) When utilizing a chemical stabilizer, an owner or operator shall:

(A) Ensure the chemical stabilizer meets any specifications, criteria, or tests required by any federal, state, or local agency or any applicable law, rule, or regulation; and

(B) Unless otherwise indicated, use a sufficient concentration of the chemical stabilizer and an application frequency sufficient to maintain a stabilized surface and no less than what is specified by the manufacturer for the period of inactivity.

(14) When using a cover for stockpiles, an owner or operator shall ensure the cover:

(A) Is at least 10 mil thick plastic sheeting that overlaps a minimum of 24 inches; and

(B) Is anchored and secured so that no portion of the soil is exposed to the atmosphere.

(~~11~~15) An owner or operator that is conducting earth-moving activities of soil with applicable toxic air contaminant(s) at a school, ~~early education center,~~ joint use agreement property, ~~or~~ adjacent athletic area, or at a site that is adjoining a school, joint use agreement property, or adjacent athletic area shall:

(A) Only conduct earth-moving activities at a school ~~or early education center~~ or at a site that is adjoining a school outside of the hours between 7:30 a.m. and 4:30 p.m. on days when the school ~~or early education center~~ is in session;

(B) Not conduct earth-moving activities at a school, ~~early education center,~~ joint use agreement property, ~~or~~ adjacent athletic area, or at a site that is adjoining a school, joint use agreement property, or adjacent athletic area if there is a school ~~or early education center~~ sponsored activity or youth organized sports taking place at that site;

(C) Handle excavated soils with applicable toxic air contaminant(s) by:

(i) Immediately placing soil in a leak-tight container whereby any contained solids or liquids are prevented from escaping or spilling out;

(ii) Directly loading soil in truck~~s~~ beds, trailers, and bins for transport, applying chemical stabilizer pursuant to paragraph (e)(13) or dust suppressant, and completely covering prior to transporting; or

(iii) Stockpiling pursuant to paragraph ~~(e)(4)~~(e)(5), in a fenced area that is not accessible to the general public, and locked when not in use; and

(D) Within five ~~(5)~~ days of its excavation, remove all soil with applicable toxic air contaminant(s) from the site.

~~(12) With the exception of paragraphs (e)(7) and (e)(11), the owner or operator or designating agency may use alternative dust control measures that meet the objective and effectiveness of the dust control measure it is replacing, where the objective and effectiveness of each category of dust control measures is stated in Appendix 2. Use of alternative dust control measures must be submitted and approved by the Executive Officer as specified under subdivision (j).~~

(f) Notification Requirements

(1) ~~At least 72 hours and no more than 30 days prior to conducting any earth-moving activities on any site meeting the applicability requirements of subdivision (b), the~~ The owner or operator shall electronically ~~notify~~ submit an initial notification to the Executive Officer, using a format approved by the Executive Officer, of the intent to conduct any on-site earth-moving activities.

(A) Initial notifications shall be submitted:

(i) At least 72 hours but no more than 30 days prior to conducting any earth-moving activities on any site meeting the applicability requirements of subdivision (b); or

(ii) As soon as the information becomes available but no later than 48 hours after the information becomes available that on-site earth-moving activities of soil with applicable toxic air contaminant(s) exceed 50 cubic yards.

(B) Initial ~~Notifications~~ notifications shall include the following requirements:

(~~A~~i) Name, address, telephone number, and e-mail address of the owner or operator;

(~~B~~ii) Name, telephone number, and e-mail address of the on-site dust control supervisor;

(~~C~~iii) Project name and, if applicable, the project identification number from the designating agency;

(~~D~~iv) Project location (address and/or coordinates);

(~~E~~v) Identify whether the site is a school, ~~early education center,~~ joint use agreement property, ~~or~~ adjacent athletic area, or is adjoining a school, joint use agreement property, or adjacent athletic area;

(~~F~~vi) A map indicating the specific location(s) of each on-site earth-moving activity and the concentrations of the applicable toxic air contaminant(s) and location of PM_{10} monitors;

(~~G~~vii) A description of the on-site earth-moving activities, estimated volume of soil with applicable toxic air contaminant(s), and a schedule that includes the anticipated start and completion dates of on-site earth-moving activities;

(~~H~~viii) Current and/or previous type of operation(s) and use(s) at the site;

(~~I~~ix) Applicable exemption(s); and

(~~J~~x) Whether the notice being provided is a revised notification.

(2) Notification Updates

Initial ~~Notifications~~ notifications pursuant to paragraph (f)(1) shall be updated when any of the following conditions arise:

(A) Earlier Start Date

A change in the start date of ~~any~~ on-site earth-moving ~~activity~~ activities to an earlier date shall be reported to the South Coast AQMD no later than 72 hours before any on-site earth-moving activities begin.

(B) Later Start Date

A delay in the start date of ~~any~~ on-site earth-moving ~~activity~~ activities shall be reported to the South Coast AQMD as soon as the information becomes available, but no later than the original start date.

(C) Change in Exemption Status

Any change(s) in exemption status pursuant to subdivision (k) shall be reported to the South Coast AQMD as soon as the information becomes available, but no later than 48 hours after the information becomes available.

(D) Completion Date

The completion date of on-site earth-moving activities shall be reported to the South Coast AQMD no later than 48 hours after on-site earth-moving activities are completed.

(3) Within 72 hours of an exceedance of the PM_{10} emission limit specified in ~~subdivision (d)~~paragraph (d)(2), the owner or operator ~~of a site meeting the applicability requirements of subdivision (b)~~ shall electronically ~~notify~~ submit a notification to the Executive Officer, using a format approved by the Executive Officer, of the exceedance and shall include the following information:

(A) Name, address, telephone number, and e-mail address of the owner or operator;

(B) Name, telephone number, and e-mail address of the on-site dust control supervisor;

(C) Project name and, if applicable, the project identification number from the designating agency;

(D) Project location (address and/or coordinates);

(E) PM_{10} monitoring results and wind direction and speed results pursuant to subdivision (d), including location of monitors, result, date and time of exceedance(s), 12 hours before first exceedance, and 12 hours after last exceedance;

(F) On-site ~~Earth~~earth-moving activities occurring at the date and time of exceedance(s); and

(G) Dust control measure(s) taken to mitigate fugitive dust.

(g) Signage Requirements

When conducting on-site earth-moving activities, the owner or operator shall install and maintain project signage.

(1) Unless otherwise approved in writing by the Executive Officer, signage shall:

(A) Be 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 sign along each side;

(B) Be located between 6 and 8 feet above grade from the bottom of the sign;

(C) Display lettering at least ~~four~~ 4 inches tall with text contrasting with the sign background; and

(D) Display the following information:

(i) Local or toll-free phone number for the site contact or pre-recorded notification center that is accessible 24 hours a day; and

(ii) Warning statement:

"THIS SITE CONTAINS SOILS THAT CONTAIN THE FOLLOWING CHEMICALS: [LIST APPLICABLE TOXIC AIR CONTAMINANT(S)]

TO REPORT ANY DUST LEAVING THE SITE PLEASE CALL [FACILITY CONTACT AND PHONE NUMBER] OR THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT AT 1-800-CUT-SMOG".

(2) ~~(E)~~If signage pursuant to paragraph (g)(1) exceeds 48 inches by 96 inches, the owner or operator or designating agency ~~must still~~ shall include the warning statement referenced in clause (g)(1)(D)(ii), displaying lettering at least ~~four~~ 4 inches tall with text contrasting with the sign background, but may use 2.5 inch tall lettering to list applicable toxic air contaminant(s). All other signage requirements set forth in paragraph (g)(1) shall remain the same. If signage continues to exceed 48 inches by 96 inches with these parameters, the owner or operator or designating agency may use alternative signage as set forth in paragraph ~~(g)(2)~~(g)(3).

(~~2~~3) The owner or operator or designating agency may use alternative signage approved by the Executive Officer pursuant to subdivision (j). Notwithstanding subdivision (j), the request shall include a visual representation of the alternative sign, including proposed lettering height, and locations and, at a minimum, the alternative signage shall:

(A) Display text contrasting with the sign background; and

(B) Display the following warning statement:

"THIS SITE CONTAINS SOILS THAT CONTAIN THE FOLLOWING CHEMICALS: [LIST APPLICABLE TOXIC AIR CONTAMINANT(S)] TO REPORT ANY DUST LEAVING THE SITE PLEASE CALL THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT AT 1-800-CUT-SMOG".

(4) The owner or operator may be excluded from installing and maintaining project signage pursuant to subparagraph (g)(1)(A) at any entrance(s) or interval(s) along the property line or perimeter of the site that is not visible and not accessible to the public unless the site is a school, joint use agreement property, or adjacent athletic area or the site is adjoining a school, joint use agreement property, or adjacent athletic area.

(h) Recordkeeping Requirements

The owner or operator shall maintain records for a period of not less than ~~three~~ 3 years and shall make such records available to the Executive Officer upon request. At a minimum, records shall be maintained daily and shall include:

(1) Inspections of all stabilized or covered stockpiles containing soils with applicable toxic air contaminant(s) and all re-stabilization, cover repair, and label maintenance activities, including dates and times the specific activities were conducted;

(2) Results of wind and PM_{10} monitoring, including: ambient PM_{10} data; rolling average PM_{10} concentrations and calculations; wind direction and speed corresponding to the rolling average PM_{10} concentrations; movement of monitoring instruments corresponding to wind direction changes; instrument make and model; settings; proof of valid calibration in accordance with manufacturer's recommended schedule; configuration; calibration, correction, and correlation factors; maintenance; operator training; ~~and~~ daily instrument performance check records and manual zero or auto-check results; weekly zero calibration records and intra-instrument precision test data and calculation results; and all instrument logs for all monitoring instruments;

(3) All instrument maintenance activities, including: zero calibration, cleaning, filter replacement, and performance checks, including dates and times of the specific procedures;

(4) Documentation of all DAS and data management system failures, including date and time of the failure, date and time of the correction, the technical issue(s) causing

the failure, and activities performed to restore the failed DAS or data management system to working condition;

(~~3~~5) On-site ~~Earth~~earth-moving activities conducted and the corresponding volume of soil with applicable toxic air contaminant(s);

(~~4~~6) Names and business addresses of the transporting and receiving facilities, and a copy of the shipping manifest; ~~and~~

(~~5~~7) Complaints called in, including the name of complainant and contact information, date and time, on-site earth-moving activities occurring at the date and time, complaint, and action taken to mitigate the source of the complaint; and~~.~~

(8) A copy of all submitted notifications for the project.

(i) Executive Officer Designated Sites

(1) The Executive Officer may designate a site if the Executive Officer has evidence that the site contains soil with applicable toxic air contaminant(s) as defined in paragraph ~~(c)(15)~~(c)(16), after consultation with U.S. EPA, DTSC, the State Water Resources Control Board, ~~or~~ the Regional Water Quality Control Board~~s~~, and/or local, county, or state ~~health and~~ regulatory agencies, and consideration of the following:

(A) Site history, including current and/or previous type(s) of operation(s) and use(s) at the site and regulatory history;

(B) Concentration(s) of applicable toxic air contaminant(s) in the soil;

(C) Background concentration(s) of applicable toxic air contaminant(s);

(D) Volume of soil with applicable toxic air contaminant(s);

(E) Distance to a residence, park, ~~or~~ school, joint use agreement property, adjacent athletic area, or a site adjoining a school, joint use agreement property, or adjacent athletic area;

(F) Meteorological data;

(G) Health risk information or other data provided by the owner or operator, if available; and

(H) Ambient monitoring data and other applicable data, if available.

(2) Prior to making a determination, the Executive Officer will notify the owner or operator in writing that the site may be subject to this rule.

(A) In the event the owner or operator exercises this opportunity to demonstrate that this rule does not apply, the owner or operator shall submit information to the Executive Officer within 14 days of the notification substantiating why the site should be excluded from this rule.

(B) Upon final determination, the Executive Officer will notify the owner or operator in writing if the site is subject to this rule.

(3) During the determination period, the owner or operator shall comply with the provisions of this rule or cease all on-site earth-moving activities until a determination is made.

(j) Alternative Provisions

(1) If requesting an alternative provision pursuant to ~~subparagraphs (d)(2)(A), (d)(3)(A), or (d)(4)(D) or~~ paragraph~~s (e)(12), (g)(2) (k)(3), or (k)(4)~~(g)(3), the owner or operator or designating agency shall submit the request in writing at least 30 days prior to conducting any earth-moving activities and include all information to the Executive Officer to substantiate its position.

~~(A) The owner or operator or designating agency that elects to request alternative provisions for the PM_{10} limit, PM_{10} monitoring method, signage, or direct loading exemption shall submit the request in writing at least 30 days prior to conducting any earth-moving activities.~~

~~(B) The owner or operator or designating agency that elects to request alternative provisions for the PM_{10} calculation or dust control measures shall submit the request, in writing, prior to an exceedance of the PM_{10} concentration requirements set forth in paragraph (d)(2).~~

(2) The Executive Officer may request additional information from the owner or operator or designating agency.

(3) The owner or operator or designating agency shall submit all requested information within 14 days of the request for additional information.

(4) The Executive Officer will review the request for an alternative provision and will approve or reject the data and notify the owner or operator or designating agency in writing. Approved alternative provisions may not be used retroactively.

(5) Alternative provisions that were approved and notified in writing by the Executive Officer before *[Date of Adoption]* shall be deemed compliant with the requirements of the applicable provisions of the rule, shall remain in effect only for the period of time and for the specific project for which they were granted, and shall not be renewed or extended.

(k) Exemptions

(1) The owner or operator may be exempt from one or more provisions of this rule provided there is written confirmation that the designating agency under

subparagraphs (b)(1)(A) through (b)(1)(D) has consulted with the Executive Officer and has determined that the provision(s) are not needed based on information specified in subparagraphs (i)(1)(A) through (i)(1)(H).

(2) On-site ~~Earth~~earth-moving activities performed within an enclosed system vented to South Coast AQMD permitted air pollution control equipment shall be exempt from all requirements except: subparagraphs ~~(e)(3)(C) through (e)(3)(E)~~ (e)(4)(C) through (e)(4)(E), subparagraphs ~~(e)(5)(D) and (e)(5)(E)~~ (e)(6)(D) and (e)(6)(E), and subdivisions (f), (g), and (h).

(3) Linear trenching for natural gas, power, sewer, and water projects on roadways with soil with applicable toxic air contaminant(s), directly loaded into a truck bed, trailer, or bin for transport, shall be exempt from all requirements except: paragraphs ~~(e)(2) through (e)(8)~~(e)(3) through (e)(9), paragraphs ~~(e)(11)~~(e)(13) and (e)(15), and subdivisions (f), (h), and (i). ~~The owner or operator or designating agency may use an alternative to directly load into a truck or bin for transport that meets the objective and effectiveness of directly loading soil, where the objective and effectiveness is stated in Appendix 2. Use of an alternative measure must be submitted and approved by the Executive Officer as specified under subdivision (j).~~

(4) On-site ~~Earth~~earth-moving activities consisting only of excavation activities of soil with applicable toxic air contaminant(s) of less than 500 cubic yards, directly loaded into a truck bed, trailer, or bin for transport, shall be exempt from all requirements except: paragraphs ~~(e)(2) through (e)(8)~~ (e)(3) through (e)(9), paragraphs ~~(e)(11)~~(e)(13) and (e)(15), and subdivisions (f), (h), and (i). ~~The owner or operator or designating agency may use an alternative to directly load into a truck or bin for transport that meets the objective and effectiveness of directly loading soil, where the objective and effectiveness is stated in Appendix 2. Use of alternative measure must be submitted and approved by the Executive Officer as specified under subdivision (j).~~

(5) ~~Active operations~~ On-site earth-moving activities conducted during emergency life-threatening situations, or in conjunction with any officially declared disaster or state of emergency as declared by an authorized health officer, agricultural commissioner, fire protection officer, or other authorized agency officer shall be exempt from all requirements. The Executive Officer shall be notified electronically no later than 48 hours following such on-site earth-moving activities. Written notification shall include written emergency declaration from the authorized officer.

(6) ~~Active operations~~ On-site earth-moving activities conducted by essential service utilities to provide electricity, natural gas, telephone, water, or sewer during periods of service outages and emergency disruptions shall be exempt from all requirements. The Executive Officer shall be notified electronically no later than 48 hours following such on-site earth-moving activities.

Table I – Applicable Toxic Air Contaminants

CAS Number	Substance
7440-38-2	**arsenic and arsenic compounds (inorganic)**
	including, but not limited to:
	arsenic compounds (inorganic)
7784-42-1	arsine
1332-21-4	Asbestos
7440-43-9	cadmium and cadmium compounds
57-74-9	chlordane*
	dibenzo-p-dioxins (chlorinated)*
1746-01-6	tetrachlorodibenzo-p-dioxin, 2,3,7,8-
40321-76-4	pentachlorodibenzo-p-dioxin, 1,2,3,7,8-
39227-28-6	hexachlorodibenzo-p-dioxin, 1,2,3,4,7,8-
57653-85-7	hexachlorodibenzo-p-dioxin, 1,2,3,6,7,8-
19408-74-3	hexachlorodibenzo-p-dioxin, 1,2,3,7,8,9-
35822-46-9	heptachlorodibenzo-p-dioxin, 1,2,3,4,6,7,8-
3268-87-9	octachlorodibenzo-p-dioxin, 1,2,3,4,6,7,8,9-
41903-57-5	total tetrachlorodibenzo-p-dioxin
36088-22-9	total pentachlorodibenzo-p-dioxin
34465-46-8	total hexachlorodibenzo-p-dioxin
37871-00-4	total heptachlorodibenzo-p-dioxin
72-54-8	dichlorodiphenyldichloroethane*
72-55-9	dichlorodiphenyldichloroethylene*
50-29-3	dichlorodiphenyltrichloroethane*
18540-29-9	**chromium (hexavalent) and chromium compounds**
	including, but not limited to:
10294-40-3	barium chromate

CAS Number	Substance
13765-19-0	calcium chromate
7758-97-6	lead chromate
10588-01-9	sodium dichromate
7789-06-2	strontium chromate
13530-65-9	zinc chromate
7439-92-1	**lead and lead compounds (inorganic, including elemental lead)**
	including, but not limited to:
	lead compounds (inorganic)
301-04-2	lead acetate
7758-97-6	lead chromate
7446-27-7	lead phosphate
1335-32-6	lead subacetate
7439-97-6	**mercury and mercury compounds (inorganic)**
	including, but not limited to:
7487-94-7	mercuric chloride
593-74-8	methyl mercury
7440-02-0	**nickel and nickel compounds**
	including, but not limited to:
373-02-4	nickel acetate
3333-67-3	nickel carbonate
13463-39-3	nickel carbonyl
12054-48-7	nickel hydroxide
1313-99-1	nickel oxide
12035-72-2	nickel subsulfide
1271-28-9	nickelocene
	refinery dust from the pyrometallurgical process
1336-36-3	**polychlorinated biphenyls (PCBs)**
32598-13-3	3,3',4,4'-tetrachlorobiphenyl (PCB 77)
70362-50-4	3,4,4',5-tetrachlorobiphenyl (PCB 81)

CAS Number	Substance
32598-14-4	2,3,3',4,4'-pentachlorobiphenyl (PCB 105)
74472-37-0	2,3,4,4',5-pentachlorobiphenyl (PCB 114)
31508-00-6	2,3',4,4',5-pentachlorobiphenyl (PCB 118)
65510-44-3	2,3',4,4',5'-pentachlorobiphenyl (PCB 123)
57465-28-8	3,3',4,4',5-pentachlorobiphenyl (PCB 126)
38380-08-4	2,3,3',4,4',5-hexachlorobiphenyl (PCB 156)
69782-90-7	2,3,3',4,4',5'-hexachlorobiphenyl (PCB 157)
52663-72-6	2,3',4,4',5,5'-hexachlorobiphenyl (PCB 167)
32774-16-6	3,3',4,4',5,5'-hexachlorobiphenyl (PCB 169)
39635-31-9	2,3,3'4,4',5,5'-heptachlorobiphenyl (PCB 189)
	polycyclic aromatic hydrocarbons (PAHs)*
56-55-3	benzo[a]anthracene
50-32-8	benzo[a]pyrene
205-99-2	benzo[b]fluoranthene
207-08-9	benzo[k]fluoranthene
218-01-9	chrysene
53-70-3	dibenz[a,h]anthracene
193-39-5	indeno[1,2,3-c,d]pyrene

~~* Effective January 1, 2018~~

Appendix 1 – ~~Executive Officer~~ Rule 1466 Approved PM_{10} Monitors

The Executive Officer may approve PM_{10} monitors that meet the following physical and performance requirements.

1. Physical Requirements
   - 1.1. PM_{10} monitors ~~must~~ shall be continuous direct-reading near-real time monitors and shall monitor particulate matter less than 10 microns.
   - 1.2. PM_{10} monitors ~~must~~ shall be equipped with:
     - 1.2.a. Omni-directional heated sampler inlet;
     - 1.2.b. Sample pump with active flow control mechanism;
     - ~~c.Volumetric flow controller;~~
     - 1.2.~~d~~c. Enclosure;~~ and~~
     - 1.2.~~e~~d. Data logger capable of logging each data point with average concentration, time~~/~~, date, and data point number; and
     - 1.2.e. Conductive tubing that minimizes particle loss for any external tubing used to carry sampled air prior to measurement.

2. Performance Requirements
   - 2.1~~3.~~ PM_{10} monitors ~~must~~ shall have the following minimum performance standards:
     - 2.1.a. Range: 0 - 10,000 $\mu g/m^3$;
     - 2.1.b. Accuracy, determined through factory testing against a U.S. EPA Federal Reference Method or Federal Equivalent Method, for a minimum of 30 measurements each averaged over 24 hours, to show:
       - 2.1.b.i. ± 5% of reading ± precision; or
       - 2.1.b.ii. Coefficient of determination (R^2) of ≥ 0.95 through simple linear regression;
     - 2.1.c. Resolution: 1.0 $\mu g/m^3$;
     - 2.1.d. Flow control accuracy of ± 5% of factory setpoint; and
     - 2.1.~~d~~e. Measurement Cycle: User selectable (30 minute and 2 hour).
   - 2.2 Monitors that have a valid *Monitoring Certification Scheme* certification meeting the latest version of the *Monitoring Certification Scheme* (*MCERTS): Performance Standard for Indicative Ambient Particulate Monitors* may be exempt from meeting the performance requirements listed above, but shall meet all stated physical requirements.

3. Quality Assurance/Quality Control Requirements

~~4.~~ In order to ensure the validity of the PM_{10} measurements performed, there ~~must~~ shall be appropriate Quality Assurance/Quality Control (QA/QC). It is the responsibility of the owner or operator to adequately supplement QA/QC Plans to include the following critical features: instrument calibration, instrument maintenance, operator training, and daily instrument performance ~~(span)~~ checks.

~~Appendix 2 – Objectives and Effectiveness of Dust Control Measures Set Forth in Subdivision (e)~~

~~Dust Control Measure~~	~~Objective~~	~~Effectiveness~~
~~(e)(1) Fencing and Windscreen Requirement~~	~~To minimize off-site fugitive dust emissions containing toxic air contaminants, provide a wind break, act as containment, provide security, and limit access to unauthorized persons.~~	~~Any dust control measure that is equally or more effective in minimizing off-site fugitive dust emissions containing toxic air contaminants that may result in exposure to the general public and will limit public access to the site.~~
~~(e)(2) Water Application~~	~~To minimize fugitive dust emissions containing toxic air contaminants from earth-moving activities.~~	~~Any dust control measure that is equally or more effective at preventing the generation of visible dust plumes from earth-moving activities.~~
~~(e)(3) Vehicle Movement~~	~~To minimize fugitive dust emissions containing toxic air contaminants from on-site vehicles and as vehicles are moving off-site.~~	~~Any dust control measure that is equally or more effective at preventing the generation of dust plumes from on-site vehicle movement and any fugitive dust that can be tracked out of the site that can result in exposure to the general public.~~
~~(e)(4) Stockpiles~~	~~To minimize fugitive dust emissions containing toxic air contaminants from stockpiles.~~	~~Any dust control measure that is equally or more effective at minimizing fugitive dust emissions containing toxic air contaminants from stockpiles and that will prevent the generation of dust plumes from stockpiles that can result~~

~~Dust Control Measure~~	~~Objective~~	~~Effectiveness~~
		~~in exposure to the general public.~~
~~(e)(5) Truck Loading~~	~~To minimize fugitive dust emissions containing toxic air contaminants from truck loading and truck movement.~~	~~Any dust control measure that is equally or more effective at preventing a dust plume or fugitive dust occurring during the loading of soils containing toxic air contaminants into trailers and physical containment or other mechanisms to minimize fugitive dust from escaping the trailer during transport.~~
~~(e)(6) Truck Unloading~~	~~To minimize fugitive dust emissions containing toxic air contaminants from truck unloading and truck movement.~~	~~Any dust control measure that is equally or more effective at preventing a dust plume or fugitive dust occurring during the unloading of soils containing toxic air contaminants.~~
~~(e)(8) Earth-Moving Activities at Certain Wind Speeds~~	~~To minimize fugitive dust emissions containing toxic air contaminants from high wind events.~~	~~Any dust control measure that is equally or more effective at preventing a dust plume or fugitive dust occurring during high wind events.~~
~~(e)(9) On-site Dust Control Supervisor~~	~~To require the on-site presence of a person that has specific training to ensure compliance with all rule requirements.~~	~~Any measure that ensures the on-site presence of a person with training covering the same material as that covered by an SCAQMD Fugitive Dust Control Class and appropriate credentials to handle applicable toxic air contaminants and that can~~

~~Dust Control Measure~~	~~Objective~~	~~Effectiveness~~
		~~ensure compliance with all rule requirements.~~
~~(e)(10) Application of Chemical Stabilizer During Periods of Inactivity~~	~~To minimize a dust plume or fugitive dust emissions containing toxic air contaminants from occurring on-site during periods of inactivity.~~	~~Any dust control measure that is equally or more effective at preventing a dust plume or fugitive dust emissions containing toxic air contaminants from occurring on-site during periods of inactivity.~~
~~(k)(3)/(k)(4) Direct Load into a Truck or Bin for Transport~~	~~To minimize a dust plume or fugitive dust emissions containing toxic air contaminants from truck loading and unloading.~~	~~Any dust control measure that is equally or more effective at preventing a dust plume or fugitive dust emissions containing toxic air contaminants from truck loading and unloading.~~

Appendix 2 – Procedures to Demonstrate Intra-Instrument Precision

An owner or operator shall perform the following procedures to demonstrate the intra-instrument precision of all PM_{10} monitors as required in paragraph (d)(7).

1. Ensure monitors are identical in make and model, settings, and configuration.
2. Ensure monitor inlets are at the same height and located within 4 meters of each other but no less than 1 meter apart for the duration of the test.
3. Power on the monitors and turn on the heated sampler inlet. Allow the monitors to warm-up per manufacturer's recommendations or when readings have stabilized.
4. For each monitor, conduct a zero calibration in accordance with manufacturer's instructions, then conduct a manual zero check by removing any sampling inlet and installing a filter, rated by the manufacturer to achieve a 99.97 percent control efficiency for 0.3 micron particles, on the inlet of the monitor for a minimum of 10 minutes. If the monitors are operated using an auto-zero check procedure that directs filtered particle-free air into the measurement chamber, conduct the zero check in accordance with manufacturer's instructions.
5. Log the PM_{10} concentration reading every minute, and calculate and record the average of the readings of the manual zero check. The average of the manual zero check readings shall be 0 ± 3 micrograms per cubic meter before proceeding to Step 6. If conducting an auto-zero check, the monitor shall pass the zero check in accordance with manufacturer's instructions before proceeding to Step 6. If any monitors fail either the manual zero check or the auto-zero check, the owner or operator shall conduct a zero calibration in accordance with manufacturer's instructions and/or correct any issue(s) causing the failure, followed by conducting a passing zero check on the PM_{10} monitor(s) in accordance with Steps 4 and 5.
6. Remove the filter and install the monitor inlet as required. After waiting 10 minutes, operate the monitors simultaneously and log the PM_{10} concentration reading every minute for a minimum of 60 minutes.
7. Calculate the intra-instrument precision using either of the following equations:

    a. Intra-instrument precision in relative standard deviation or correlation of variation (%) when ambient PM_{10} concentrations are greater than or equal to 15 micrograms per cubic meter:

$$P = \frac{S_t}{C_t} \, x \, 100\%$$

where,

P = Intra-instrument precision in percent (%);

S_t = Standard deviation of the averaged PM_{10} concentration readings from all tested monitors over the time *t* of testing duration, to be calculated as:

$$S_t = \sqrt{\frac{\sum(x_i - \bar{x})^2}{(n-1)}}$$

where,

x_i = Mean of the PM_{10} concentration readings for a tested monitor over time *t* of testing duration,

$\bar{x}$ = Mean of the averaged PM_{10} concentration readings from all tested monitors over the time *t* of testing duration, and

n = Number of tested monitors; and

C_t = Mean of the averaged PM_{10} concentration readings from all tested monitors over the time *t* of testing duration; or

b. Intra-instrument precision in absolute value (micrograms per cubic meter) when ambient PM_{10} concentrations are less than 15 micrograms per cubic meter:

$$P = S_t$$

where,

P = Intra-instrument precision in micrograms per cubic meter, and

S_t = Standard deviation of the averaged PM_{10} concentration readings from all tested monitors over the time t of testing duration.

8. Record the results of the calculations.

ATTACHMENT G

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Final Staff Report
Proposed Amended Rule 1466 – Control of Particulate Emissions from Soils with Toxic Air Contaminants

June 2021

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INTRODUCTION

Rule 1466 – Control of Particulate Emissions from Soils with Toxic Air Contaminants (Rule 1466) minimizes fugitive dust emissions containing toxic metals, pesticides, herbicides, polychlorinated biphenyls, and other toxic air contaminants from sites that meet the rule's applicability requirements by establishing dust control measures that can be implemented during earth-moving activities. Applicable sites are those that are determined to have soil that contains one or more applicable toxic air contaminants and designated as cleanup sites by the U.S. Environmental Protection Agency (U.S. EPA), California Department of Toxics Substances Control (DTSC), State Water Resources Control Board (State Water Board), Regional Water Quality Control Board (Regional Water Board), or county, local or state regulatory agency. Additionally, Rule 1466 has a provision for the Executive Officer to identify sites, based on a set of criteria, to be subject to the requirements of the rule. The rule establishes a PM_{10} ambient dust concentration limit and dust control measures. Notification to the Executive Officer is required prior to beginning earth-moving activities as well as when ambient PM_{10} dust concentration limits are exceeded. Additional requirements include recordkeeping and signage. Currently, Rule 1466 allows alternative dust control measures, ambient dust concentration limits, signage, and other alternative provisions upon Executive Officer approval.

Proposed Amended Rule 1466 – Control of Particulate Emissions from Soils with Toxic Air Contaminants (PAR 1466) will clarify existing provisions; update requirements for pre-approved monitors, and PM_{10} monitoring and calculation; enhance dust control measures for vehicles, stockpiling, periods of inactivity, and sites adjoining a school, joint use agreement property, or athletic area; remove alternative provisions for dust control measures, ambient dust concentration limits, and other requirements; streamline provisions for existing fencing and signage; and add additional requirements for notifications and recordkeeping.

REGULATORY BACKGROUND

South Coast AQMD's regulatory structure for fugitive dust and particulate matter includes rules that address fugitive dust (Rule 403 – Fugitive Dust); volatile organic compounds (VOCs) contaminated soil (Rule 1166 – Volatile Organic Compound Emissions from Decontamination of Soil); and soil containing toxic air contaminant(s) (Rule 1466).

Rule 1466

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

Rule 1166

Rule 1166 was adopted in August 1988 and established requirements to control VOC emissions from excavating, grading, handling and treating VOC-contaminated soil as a result of leakages from storage or transfer operations, accidental spillage or other deposition. Although Rule 1166 targets VOC emission reductions, implementation of the rule also results in concurrent reductions in toxic-VOCs such as benzene, toluene, xylene, and ethylbenzene, which are generally associated

with petroleum products. The rule includes provisions for mitigation plans to limit VOC emissions, notification to the South Coast AQMD, and monitoring requirements; as well as measures to reduce VOC emissions during stockpiling and truck loading. Rule 1166 does not apply to sites with soils containing non-VOC toxics, such as metal toxic particulates and the toxic air contaminants covered under Rule 1466.

Rule 403

Rule 403 was adopted on May 7, 1976. The purpose of Rule 403 is to reduce particulate matter entrained in ambient air as a result of man-made fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions. Rule 403 limits particulate matter concentrations, when monitored, and contains control measures to limit fugitive dust. Rule 403 provides a menu of dust control guidance and options for the operator to select. Additional provisions, including more specific dust control measures, are included for large operations (> 50 acres) and for operations where fugitive dust concentrations exceed performance standards. Many sites with toxic air contaminant(s) in the soil are less than 50 acres, and therefore are not required to implement these additional and more specific dust control measures. Also, ambient dust monitoring is not always required under Rule 403. Even when monitoring is required, the 50 $\mu g/m^3$ PM_{10} ambient dust concentration limit may not be sufficiently health protective for toxic air contaminants. Rule 403 and Rule 1466 have some similar provisions, but there is minimal overlap between the two rules for Rule 403 sites, as only a small number of sites are subject to Rule 1466 as compared to Rule 403. Generally, Rule 1466 has more stringent provisions than Rule 403. Where there is overlap in provisions between ~~Proposed Amended~~ Rule 1466 and Rule 403, the more stringent provision applies.

NEED FOR PROPOSED AMENDED RULE 1466

Clarifications are needed for certain monitoring, fencing, and stockpiling requirements to ensure provisions are enforceable. Enhanced monitoring requirements are needed to align with instrument advances. Instrumentation advances in PM_{10} monitoring methods have demonstrated that PM_{10} concentrations can be calculated on a continuous, real-time basis, which can improve the response to a PM_{10} limit exceedance and maintain fugitive dust mitigation. Between 2019 and 2020, there were 23 notified exceedances of the 25 $\mu g/m^3$ PM_{10} concentration limit. These exceedances occurred at eight out of approximately seventy sites. Alternative provisions are removed to streamline rule implementation. Rule provisions including the PM_{10} limit, monitoring method, and calculation, dust control measures, signage, and direct loading requirements have been demonstrated to be achievable with few requests for alternative provisions.

PUBLIC PROCESS

PAR 1466 is being developed through a public process. South Coast AQMD has held two ~~Working Group Meetings~~ working group meetings remotely on January 14, 2021 and February 5, 2021, and one Instrument Sub-Committee Working Group Meeting remotely on March 23, 2021. The Working Group and Instrument Sub-Committee are each composed of representatives from businesses, environmental groups, public agencies, and consultants. The purpose of the ~~Working Group Meetings~~ working group meetings ~~is~~ was to discuss the proposed rule amendments and allow stakeholders the opportunity to provide input during the rule development process. Additionally, a Public Workshop was held on March 4, 2021.

CHAPTER 2: SUMMARY OF PROPOSAL

INTRODUCTION

PROPOSED AMENDED RULE 1466

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INTRODUCTION

PAR 1466 will clarify and streamline existing provisions, update monitoring requirements, enhance specific dust control measures, remove alternative provisions for most requirements, and add additional requirements for notifications and recordkeeping.

PROPOSED AMENDED RULE 1466

Purpose (Subdivision (a))

For consistency with the revised definition of "Earth-Moving Activities" in paragraph (c)(7) of the proposed amended rule, additional earth-moving activities of "dredging," "earth-cutting and filling," "loading," "unloading," and "mechanized land clearing" are added.

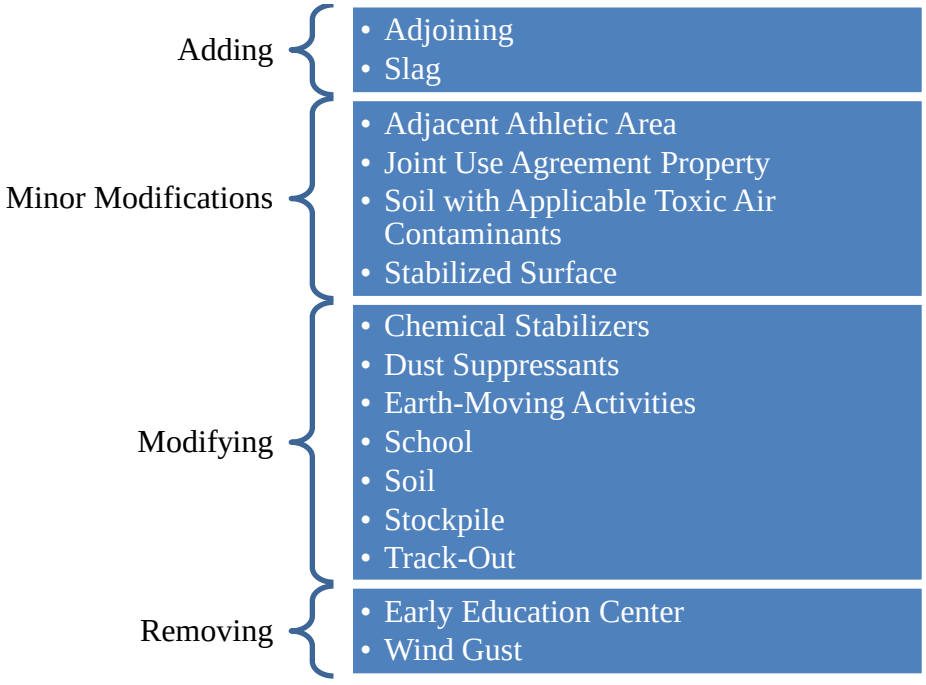
Applicability (Subdivision (b))

In December 2017, Rule 1466 was amended to expand the applicability of the rule to include Hazardous Material Release Sites designated and notified by county, local, or state regulatory agencies. The expanded applicability would be effective January 1, 2018. As this effective date has passed, PAR 1466 will remove this effective date.

Definitions (Subdivision (c))

PAR 1466 includes new, modified, and removed definitions, as listed in Figure 1.

Figure 1: Proposed Definition Revisions



Adjacent Athletic Area and Adjoining Sites (paragraphs (c)(2) and (c)(3))

PAR 1466 paragraph (e)(15) expands the enhanced fugitive dust control measures that currently apply to schools, joint use agreement properties, and adjacent athletic areas, to also include cleanup sites that are adjoining a school, joint use agreement property, or adjacent athletic area. The term

"Adjoining" is added in paragraph (c)(3) and refers to a site that is in physical contact with, or separated solely by, a public roadway or other public right-of-way. An "Adjacent Athletic Area" is now defined in paragraph (c)(2) as any outdoor or athletic field or park where youth organized sports occur that is in physical contact or separated solely by a public roadway or other public right-of-way to a school.

Chemical Stabilizers, Dust Suppressants, and Stabilized Surface (paragraphs (c)(4), (c)(6), and (c)(17))

The definitions for "Chemical Stabilizers" and "Dust Suppressants" are revised to remove circular references. To align with these changes, "Chemical Stabilizers" are incorporated into the definition of "Stabilized Surface" to indicate that a stabilized surface could be achieved through either use of dust suppressants or through chemical stabilization. Due to the proposed amendments to the definitions of chemical stabilizer, dust suppressant, and stabilized surface, all provisions requiring stabilization or a stabilized surface will now allow for the use of chemical stabilizer or dust suppressant to control dust from these sources. Additionally, requirements for how to use chemical stabilizers are removed from the "Chemical Stabilizers" definition and incorporated into paragraph (e)(13).

Earth-Moving Activities (paragraph (c)(7))

The definition for "Earth-Moving Activities" is clarified by removing "but not be limited to" and adding additional earth-moving activities of "dredging," "handling," "mechanized land clearing," "treating," "transferring," "removing," and "vehicular movement by equipment associated with these activities." This definition also specifies vehicular movement that would not fall under the "Earth-Moving Activities" definition, including delivery vehicles, passenger vehicles transporting personnel to and from the site, vehicles used for administrative purposes, vehicles transporting personnel for the purposes of soil sampling and conducting ambient PM_{10} monitoring requirements, watering trucks, and equipment used exclusively on an area(s) of the designated site that does not contain soil with applicable toxic air contaminant(s). Vehicular movement associated with activities to prepare the site prior to commencing a cleanup project, such as installing fencing and PM_{10} monitors, also do not fall under this definition. Fugitive dust generated from vehicular movement or any other activity that is either excluded from or not identified in the "Earth-Moving Activities" definition is still subject to Rule 403. Filling operations with soil that is designated to have applicable toxic air contaminants but has been certified as clean by the designating agency after remediation would not fall under the "Earth-Moving Activities" definition.

Early Education Center and School (formerly paragraph (c)(6) and paragraph (c)(13))

For purposes of achieving consistency with recently adopted and amended South Coast AQMD rules, the definition of "School" is revised. This revised definition incorporates the definition of "Early Education Center" from paragraph (c)(6) in the current rule. As a result, the "Early Education Center" definition is deleted along with all references to "Early Education Center" in the rule provisions as well as in the definitions of "Adjacent Athletic Area" and "Joint Use Agreement Property."

Slag and Soil (paragraphs (c)(14) and (c)(15))

A definition for "slag" is added in paragraph (c)(14) and is defined as the by-product material separated from metals during smelting or refining of ore. "Slag" was also added to the list of substances describing "Soil" in paragraph (c)(15) to clarify that soil includes this substance.

Stockpile (paragraph (c)(18))
The current definition of "Stockpile" excludes soil which has been covered or stabilized. This impacts the ability to enforce stockpiling requirements. The exclusion has been corrected.

Track-Out (paragraph (c)(19))
The definition of "Track-Out" is amended to clarify that depositions of soil onto a roadway that cannot be removed by a vacuum sweeper are not subject to the track-out provisions.

Wind Gust (formerly paragraph (c)(20))
This definition is removed as the rule's various provisions for high winds do not reference wind gust.

Monitoring Requirements (Subdivision (d))

PAR 1466 will clarify existing monitoring and concentration calculation provisions to ensure appropriate enforcement of the PM_{10} limit and enhance monitoring requirements to minimize monitoring data gaps and ensure accurate and precise PM_{10} measurements.

Rule 1466 currently requires that the two-hour PM_{10} concentration calculation starts at the top of each hour, despite earth-moving activities not starting at the top of the hour. The intent of the PM_{10} calculation is to monitor the PM_{10} concentration during periods of activity, not periods of inactivity. To clarify this intent, the start of the two-hour PM_{10} concentration calculation is revised to begin when earth-moving activities commence and not at the top of the hour.

Also, as currently written, the PM_{10} calculation does not reset after an exceedance of the 25 $\mu g/m^3$ PM_{10} concentration limit is addressed. After an exceedance is addressed, the two-hour averaging of the PM_{10} concentration should be reset when earth-moving activities resume. If the cause of exceedance was addressed by applying dust suppressants or other mitigation measures, work could not resume until sufficient time had elapsed to allow the two-hour average to be below the standard. The intent of the PM_{10} limit is to alert the operator when there is an exceedance of the limit to increase vigilance of implementing dust control measures; once those measure have been implemented, the operator should not be penalized for the previous exceedance in the current rolling average. To clarify this intent, a provision is added requiring that the two-hour averaging of the PM_{10} concentration be reset when earth-moving activities resume.

Additionally, Rule 1466 currently requires that the PM_{10} concentration be calculated as an absolute difference of the results between the upwind and downwind monitors at the site, regardless of wind direction. This has led to unnecessary delays or stoppages in earthmoving activities. If concentrations at the upwind monitor are elevated due to activities upwind of the site, the absolute difference methodology could result in an exceedance of the 25 $\mu g/m^3$ PM_{10} concentration limit even though the cause of the exceedance is not earth-moving activities on the site. To clarify this intent, provisions are added for designation of upwind monitors and downwind monitors.

Paragraph (d)(2)
PAR 1466 removes the provision which allows use of an alternative PM_{10} limit. Based on rule implementation over the past three years, the 25 $\mu g/m^3$ PM_{10} limit is achievable, and only two sites have requested a higher PM_{10} limit.

To clarify, PM_{10} monitoring must continue as the owner or operator implements dust control measures to bring the PM_{10} concentration below 25 $\mu g/m^3$.

Paragraph (d)(3)

Paragraph (d)(3), which required that the PM_{10} monitoring be conducted using a federal approved equivalent method or an alternative method approved by the Executive Officer, now removes the alternative method and specifies that the PM_{10} monitoring must be conducted using a Rule 1466 Approved PM_{10} Monitor.

Also, paragraph (d)(3) now specifies the requirements for placement and specifications of the PM_{10} monitors. The monitors will continue to be placed in the seasonal prevailing wind direction upwind and downwind of the site and as close to the property line as feasible. However, as clarified in the proposed changes to subparagraph (d)(3)(B), the monitors will no longer be referred to as "upwind" and "downwind" monitors to allow for re-designation of the monitors corresponding to the wind direction when the direction of the wind shifts. Requirements for re-designating the monitors based on the wind direction change are also added in subparagraph ~~(d)(4)(D)~~(d)(9)(D) (formerly subparagraph (d)(4)(A)).

Subparagraph (d)(3)(C) (formerly subparagraph (d)(3)(D)) contains the requirement for PM_{10} monitors to be identical in make and model, settings, calibration, configuration, and calibration, correction, and correlation factors. The term "settings" in subparagraph (d)(3)(C) refers to the run parameters entered into the instrument such as: flow rate, humidity control, conditioning of sample air stream, logging mode and averaging period, run times, zeroing, and correction factor. "Configuration" refers to any of the accessories on the PM_{10} monitor such as the: inlet (omni directional, heated, cyclone, etc.), water trap, zero module, pump, and filter. The phrase "calibration, correction, and correlation factors" refers to any value that scales the concentration output. At the same time, subparagraph (d)(3)(D) (formerly subparagraph (d)(3)(E)) will require that each PM_{10} monitor be operated, maintained, and calibrated in accordance with EPA documents for federal equivalent methods for PM_{10} or manufacturer's instructions, which may actually result in different calibration, correction, and correlation factors for each monitor. To avoid this contradictory result and to ensure that these factors determined pursuant to subparagraph (d)(3)(D) are applied as determined individually for each monitor, it is proposed that the term "calibration" and the phrase "calibration, correction, and correlation factors" be removed from subparagraph (d)(3)(C).

Paragraphs (d)(4) and (d)(5)

To align with the change of the two-hour average from a ten-minute rolling average to a one-minute rolling average, paragraph (d)(5) will require a data acquisition system (DAS) capable of logging direct-reading near real-time data every minute. Additionally, the date and time will need to be calibrated to Pacific Standard Time. Subparagraph (d)(3)(F), which currently requires a DAS capable of logging data every 10 minutes, is now moved to paragraph (d)(4). In order to allow time for stakeholders to prepare for implementation of the new DAS requirement, paragraph (d)(5) will become effective January 1, 2022.

Paragraph (d)(6)

Paragraph (d)(6) is added, which will require monitors to be operated with the heated sampler inlet on. This ensures that humidity will not affect the results of the PM_{10} reading and that all instruments on-site are operating in the same manner, producing results that are as accurate as possible. In order to allow time for stakeholders to prepare for implementation of the heated sampler inlet requirement, paragraph (d)(6) will become effective January 1, 2022.

Paragraphs (d)(7) and (d)(8)

Two additional provisions are proposed to ensure accuracy and precision of the PM_{10} measurements, which include an intra-instrument precision test (paragraph (d)(7)) and a manual zero check (paragraph (d)(8)). Before the monitors can be operated on the site to fulfill the monitoring requirements and proceed with earth-moving activity, the monitors must pass the weekly intra-instrument precision tests and daily zero checks. Prior to conducting the project and on a weekly basis thereafter for the duration of the project, the monitors need to be zero-calibrated then demonstrate an intra-instrument precision of no more than 25 percent when ambient PM_{10} concentrations are 15 $\mu g/m^3$ or greater, or no more than 5 $\mu g/m^3$ when ambient PM_{10} concentrations are less than 15 $\mu g/m^3$. Prior to conducting earth-moving activities for the day, on a daily basis for the duration of the project, the monitors need to pass a manual zero test by demonstrating an average zero reading with a precision ± 3 $\mu g/m^3$. If the monitors have an auto-zero check procedure that directs filtered particle-free air into the measurement chamber, a passing zero check in accordance with manufacturer's instructions can be conducted in lieu of conducting a manual zero check.

Procedures for conducting the intra-instrument test, including the equations to calculate the intra-instrument precision, are provided in PAR 1466 Appendix 2 - Procedures to Demonstrate Intra-Instrument Precision. Intra-instrument precision tests will ensure precise results. Using monitors that demonstrate an acceptable level of "precision," or degree of variation, is important to ensure accurate measurements and objective enforcement of the Rule 1466 PM_{10} limit. The proposed 25 percent limit for intra-instrument precision is 15 percent higher than the acceptable relative standard deviation (10 percent) required in 40 CFR Part 53 – Appendix A Subpart C Table C-4[1] for measuring precision for PM_{10} candidate equivalent methods. Staff has proposed, and instrument manufacturers agreed, that the proposed precision requirement is reasonable since these are not U.S. EPA Federal Equivalent Method (FEM) instruments and cannot be expected to meet the same specifications.

When ambient PM_{10} concentrations are low, calculations to achieve a 25 percent precision are difficult and, therefore, an absolute value precision is needed. The *Monitoring Certification Scheme* (*MCERTS): Performance Standard for Indicative Ambient Particulate Monitors*[2], which is a reference used to develop the instrument requirements for this rule, contains a performance standard for intra-instrument uncertainty for PM_{10} monitors in absolute value. The MCERTS intra-instrument uncertainty standard for a candidate PM_{10} monitoring method, or a method being considered by the certification body, is $\leq$ 5 $\mu g/m^3$ for all PM_{10} concentration ranges of less than and greater than or equal to 30 $\mu g/m^3$. The proposed 5 $\mu g/m^3$ limit for intra-instrument precision is based on this intra-instrument uncertainty.

A lower limit value for ambient PM_{10} concentrations is needed to determine if the intra-instrument precision should be calculated as a percent or an absolute value. The lower limit value for low-volume PM_{10} samplers is $\geq$ 3 $\mu g/m^3$ and the lower limit value for high-volume PM_{10} samplers is $\geq$ 15 $\mu g/m^3$ for measuring uncertainty of collocated samples required by 40 CFR Part 58 -

[1] "Test Specifications for PM_{10}, $PM_{2.5}$ and $PM_{10-2.5}$ Candidate Equivalent Methods." *Code of Federal Regulations* Title 40, Part 53, Appendix A, Subpart C, Table C-4.

[2] MCERTS (U.K. Environmental Agency Monitoring Certificate Scheme): performance standard for indicative ambient particulate monitors: https://www.gov.uk/government/publications/mcerts-performance-standard-for-indicative-ambient-particulate-monitors

Appendix A Section 4.c.4[3]. Because staff expects the ambient concentrations will always meet or exceed the PM_{10} concentration lower limit value of ≥ 3 μg/m^3 staff has proposed a lower limit value of 15 μg/m^3 to determine whether to demonstrate the 25 percent limit or the 5 μg/m^3 limit.

Procedures for conducting the zero calibration and manual zero check are provided in Steps 4 and 5 of Appendix 2. Zero calibrations will ensure that the instrument corrects for measurement drift that occurs over time due to various factors by adjusting an internal instrument setting. Some particulate monitoring instruments allow the operator to perform a manual zero check where a HEPA or zero air filter is manually installed on the inlet of the instruments and the manual zero check confirms that the instrument is reading at or near "0" when clean (zero) air is introduced into the measurement chamber during normal operation. No adjustments are made during manual zero checks. The criteria for passing a manual zero check is demonstrating an average zero reading with a precision ± 3 μg/m^3 over 10 minutes, which is above the instrument noise and indicates the air flow through the inlet is clean (near zero). Some particulate monitoring instruments are capable of performing auto-zero checks where the instrument can be programmed to redirect the sample air flow through an internal HEPA or zero air filter and the filtered air is then directed into the measurement chamber. If the monitors have this auto-zero capability, then passing the zero check in accordance with manufacturer's instructions can be conducted in lieu of conducting a manual zero check. If a monitor fails a manual zero or auto-zero check, a zero calibration must be performed again and/or any issue(s) causing the zero check failure corrected, then a passing manual zero or auto-zero check be conducted before proceeding with monitoring.

Either a site operator, equipment rental company supplying the monitors, or other third party can conduct the intra-instrument precision tests. If an equipment rental company or other third party conducts the intra-instrument precision tests, the company must provide the site operator documentation with supporting data, to be made available to the Executive Officer upon request, certifying that these tests were conducted and demonstrated a passing intra-instrument precision pursuant to the limits specified in subparagraphs (d)(7)(A) or (d)(7)(B).

In order to allow time for stakeholders to prepare for implementation of these new provisions, paragraphs (d)(7) and (d)(8) will become effective January 1, 2022.

Paragraph (d)(9)

The calculation methodology currently used to determine the 120-minute rolling average PM_{10} concentration is found in paragraph (d)(9). The average is now proposed to begin as work commences instead of at the top of the hour (subparagraph (d)(9)(A)) to ensure monitoring of PM_{10} is conducted during periods of activity and minimize gaps in monitoring data.

Until December 31, 2021, the average will continue to be calculated every ten minutes (subparagraph (d)(9)(B)). Beginning January 1, 2022, subparagraph (d)(9)(C) requires that the average be calculated each minute covering the previous 120-minute period. Changing the two-hour average from a ten-minute rolling average to a one-minute rolling average updates the requirements to reflect current instrument technology capabilities. This delay in implementation is intended to provide stakeholders with sufficient time to prepare for implementation of the new provisions.

[3] "Quality Assurance Requirements for Monitors Used in Evaluations of National Ambient Air Quality Standards." *Code of Federal Regulations* Title 40, Part 58, Appendix A.

Currently, to calculate the PM_{10} concentration, Rule 1466 uses the absolute difference between the two monitors. PAR 1466 proposes to designate a monitor(s) as the "upwind" monitor(s) while the other monitor(s) will be designated as the "downwind" monitor(s) depending on the wind direction. The concentration will be determined by subtracting the results of the upwind monitor(s) from the downwind monitor(s). Once the wind direction shifts to greater than ± 90 degrees from the seasonal prevailing wind direction, then the designation of monitors change and upwind becomes downwind and downwind becomes upwind (subparagraph (d)(9)(D)). Current Rule 1466 requires PM_{10} to be calculated using absolute value, but that may trigger a PM_{10} exceedance if there are activities upwind of the site elevating upwind concentrations. Removing the absolute value would better characterize PM_{10} exceedances at the site.

New subparagraphs (d)(9)(G) and (d)(9)(H) will allow the rolling average to restart once work recommences after having ceased because of an exceedance. Specifically, the rolling average will restart after ceasing operations and applying dust suppressant or implementing other dust control measures until the ~~PM10~~ PM_{10} concentration falls to or below 25 µg/m^3 averaged over 30 minutes. The intent of the PM_{10} limit is to alert the operator when there is an exceedance of the limit to increase vigilance of implementing dust control measures; once those measure have been implemented, the operator should not be penalized for the previous exceedance in the current rolling average.

PAR 1466 removes the provision which allows use of an alternative PM_{10} concentration calculation method (previously subparagraph (d)(4)(D)). Based on rule implementation over the past three years, no sites have requested an alternative calculation method.

Paragraph (d)(10)

PAR 1466 adds a new provision to address operators that move the PM_{10} monitors when there is a change in wind direction. Instead of placing a monitor(s) in the upwind location and a monitor(s) in the downwind location based on the seasonal prevailing wind direction as required in subparagraph (d)(3)(B) and re-designating the "upwind" and "downwind" monitors following a wind direction change greater than ± 90 degrees as required in subparagraph (d)(9)(D), the operator can now elect to place at least one monitor in the upwind direction and one monitor in the downwind direction of the site of earth-moving activity and move the monitors accordingly when there is a change in wind direction. Unless the site has additional upwind and downwind monitors that are not being moved, operators must stop earth-moving activities during monitor movement.

Paragraph (d)(11)

If a DAS fails to log ambient PM_{10} data or the data management system fails to calculate PM_{10} concentrations due to circumstances beyond the reasonable control of the owner or operator, such as internet issues or computer malfunctions, earth-moving activities may continue provided that the PM_{10} concentration at each monitor is manually recorded once every ten minutes and the PM_{10} concentration is calculated manually once every 10 minutes. As soon as practicable but no later than the start of the next working day, the owner or operator must correct the failure and restore the DAS or data management system to working condition.

Paragraph (d)(12)

Currently, Rule 1466 requires wind direction and speed to be monitored as specified in *U.S. EPA Quality Assurance Handbook for Air Pollution Measurement Systems, Volume IV: Meteorological Measurements.* Instrument manufacturers and site operators have commented, and staff agrees, that the high standard of wind monitoring specified in the U.S. EPA handbook may not be feasible,

particularly for small-scale and short-term projects. Therefore, to implement a more feasible standard of wind monitoring, PAR 1466 proposes that wind direction and speed be monitored using a stationary anemometer or wind sensor that is positioned over open, level terrain within the site at a height of at least eight feet from the ground, and the wind monitoring data logged using a data logger. The data logger must record the wind monitoring data at least once every minute and archive the data, including the date and time, calibrated to Pacific Standard Time. The anemometer or wind sensor must be capable of sampling wind direction to an accuracy of seven degrees at a resolution of ≤ one degree, and sampling wind speed to an accuracy of ± two mph or ± five percent of the observed wind speed, whichever is greater, at a resolution of ≤ one mph. Wind speed and direction performance criteria can be verified in the published literature for the anemometer or wind sensor. To ensure that the anemometer or wind sensor performance is accurate and precise, the anemometer or wind sensor must have National Institute of Standards and Technology (NIST) Traceability certification, which certifies that an unbroken chain of calibrations to NIST-maintained standards are established for the particular instrument[4]. Wind sensors that are integrated with the PM_{10} monitor are acceptable if the sensors meet the wind speed and wind direction performance criteria and have NIST-Traceability certification. Use of handheld anemometers cannot be used to monitor the wind direction and speed required in this provision. The wind monitoring equipment must be operated, calibrated, and maintained in accordance with manufacturer's instructions, but no less frequent than once every six months of cumulative operation.

Paragraph (d)(13)

A request to be added as a Rule 1466 Approved PM_{10} Monitor shall be submitted to Rule1466ApprovedMonitors@aqmd.gov and must include a description of the monitor, any accessories, and all monitor specifications and include documentation demonstrating compliance with each specification listed in *Appendix 1 - Rule 1466 Approved PM_{10} Monitors* of the rule.

Requirements to Minimize Fugitive Dust Emissions (Subdivision (e))

The control measures to minimize fugitive dust are contained in subdivision (e) and include requirements for fencing, dust suppression, vehicular movement, stockpiles, truck loading, and others.

Paragraph (e)(1)

PAR 1466 incorporates a fencing provision which excludes the fencing requirement for sections of the perimeter that either have a solid physical barrier or have earth-moving activities occurring far away from fence line. The first proposed fencing provision (subparagraph (e)(1)(A)) allows a section of the perimeter to be excluded from fencing if that section has a solid physical barrier with the same height requirements as the fencing requirement. A solid physical barrier is a solid feature that minimizes air flow, such as a wall, metal or fiberglass panel, or storage or transport container. Commercial, industrial, or residential buildings with occupants and windows, trees, and vegetation are not considered solid physical barriers. Having a solid physical barrier with the same height requirements as the fencing will be as effective as installing fencing meeting the specified windscreen porosity of 50 ± 5 percent or mesh windscreen meeting the specified shade value or opacity of 85 ± 5 percent (paragraph (e)(2)) in minimizing dust crossing the property line. Subparagraph (e)(1)(B) allows a section of the perimeter to be excluded from fencing if that section is more than 300 feet away from any earth-moving activity. If the property line is far enough away

[4] NIST Policy on Metrological Traceability: https://www.nist.gov/calibrations/traceability

from the earth-moving activities, then it is less likely that fugitive dust will cross the property line. These are exclusions from the fencing requirement and do not exclude any other provisions in the rule.

Paragraph (e)(2)

Currently, Rule 1466 requires fencing that consists of a windscreen with a porosity of 50 ± 5 percent. A windscreen with a porosity of 50 percent has been shown to provide optimum windbreak efficiency[5,6]. In relation to particulate emissions, a 50% porosity windscreen of the same height of the material pile and same length as the base of the pile demonstrated emission reduction up to 97%[7]. Throughout implementation of Rule 1466, site operators have commented that it is difficult to find commercially available windscreens that state a porosity specification. Staff has identified only one windscreen manufacturer that states porosity specifications, but the windscreens offered are for permanent installation. Commercially available windscreens for temporary installation typically have a shade value or opacity specification, which is a measure of visibility that is blocked through the screen. Windbreak efficiency data is unavailable for shade value or opacity. However, fencing manufacturers providing shade value or opacity specified windscreen material have recommended to staff that a windscreen of 80-90% shade value or opacity is ideal for wind protection and dust control. Therefore, to address the availability of windscreens that can comply with Rule 1466, PAR 1466 proposes, effective January 1, 2022, to add a windscreen specification option of 85 ± 5 percent shade value or opacity. The proposed rule also adds "mesh" windscreens to add clarity to the shade value or opacity windscreen specification that the rule allows. Additionally, the height of the fencing must now be at least six inches taller than the height of the tallest stockpile.

Paragraph (e)(4)

Currently, Rule 1466 does not allow track-out to extend beyond 25 feet of the property line and requires track-out to be cleaned with a vacuum equipped with a filter rated to achieve 99.97 percent capture efficiency for 0.3 micron particles. PAR 1466 proposes to revise the provision to not allow track-out that is 25 feet or more in cumulative length instead of continuous length, in an effort to more closely align the provision with Rule 403 and further minimize total track-out from the site. The proposal also clarifies the frequency of track-out removal to be at a minimum once each day. Additionally, the proposal will correct the language regarding the filter efficiency to require 99.97 percent "control" efficiency, as opposed to "capture" efficiency; "control" efficiency refers to the percentage of particles in the air stream that can be trapped by the filter at a minimum particle size whereas "capture" efficiency refers to the percentage of particles in the air stream that can reach the filter.

Subparagraph (e)(4)(D) adds language to clarify that forced air cannot be used to clean soil from the exterior of trucks, trailers, and tires prior to the truck leaving the site as the use of forced air will create fugitive dust emissions. For the vehicle egress measures in subparagraph (e)(4)(E), PAR 1466 increases the width requirement of paving and wheel shaker/wheel spreading device to be 30 feet wide to align with the width requirement of the gravel pad.

[5] U.S. EPA. 1985. Handbook for Dust Control at Hazardous Waste Sites. Prepared by PEI Associates Inc. Contract No. 68-02-3512.

[6] U.S. EPA. 1986. Field Evaluation of Windscreens as a Fugitive Dust Control Measure for Material Storage Piles. Prepared by PEI Associates Inc. Contract No. 68-02-3995.

[7] U.S. EPA. 1985. Windbreak Effectiveness for Storage-Pile Fugitive-Dust Control: A Wind Tunnel Study. Project Summary. Prepared by Billman BJ and Arya SPS.

Paragraph (e)(5)

PAR 1466 clarifications and enhancements related to stockpiles with soil containing applicable toxic air contaminant(s) are currently included in paragraph (e)(5). New subparagraph (e)(5)(B) is separated from subparagraph (e)(5)(A) to clarify that labeling only applies to stockpiles containing soils with toxic air contaminants. Subparagraph (e)(5)(D) (formerly subparagraph (e)(5)(c)) removes the height requirement for a stockpile. This provision is no longer needed since paragraphs (e)(1) and (e)(2) have a fencing height requirement based on the height of the tallest stockpile.

Due to the proposed amendments to the definitions of chemical stabilizer and dust suppressant, subparagraph (e)(5)(E) will now allow for the use of chemical stabilizer or dust suppressant to control dust from a stockpile. Subparagraph (e)(5)(E) will also allow an additional option to use a cover to control dust from a stockpile.

To minimize fugitive dust emissions to the surrounding community, subparagraph (e)(5)(F) now specifies that the provisions to stabilize and/or cover stockpiles apply whenever both earth-moving and ambient monitoring are not occurring. The stockpiles do not have to be completely covered or stabilized during periods of inactivity (breaks, lunch, etc.) if ambient monitoring continues. The requirements for daily stockpile inspection and stockpile covers in subparagraph (e)(5)(F) are moved to paragraphs (e)(12) and (e)(14), respectively.

Paragraphs (e)(6) and (e)(7)

For consistency and clarity, PAR 1466 will include the truck bed and trailer for truck loading and unloading activities.

Paragraph (e)(8)

PAR 1466 will remove the reference to "soil containing applicable toxic air contaminants" for removal of any spilled soil. Staff was concerned that referencing "soil containing applicable toxic air contaminants" implies operators would need to analyze spilled soil. The revision clarifies that any spilled soil will be required to be removed, which will ensure fugitive dust emissions will be minimized.

Paragraph (e)(11)

Instead of stabilizing sources of fugitive dust when there are no earth-moving activities occurring for three or more consecutive days, sources of fugitive dust must be stabilized whenever earth-moving activities are not occurring in the specific location(s) where there is a fugitive dust source. For example, if the owner or operator completes earth-moving activities at one or more locations containing a potential source of fugitive dust, and there are earth-moving activities occurring or will occur in other parts of the site, the owner or operator must stabilize or cover the fugitive dust sources even though earth-moving activity is still occurring on the site. This provision will minimize exposure of soil with toxic air contaminants to the surrounding community during all non-working hours instead of only when there are no earth-moving activities occurring for three or more consecutive days.

Paragraph (e)(12)

The daily inspection provision for stabilized and covered stockpiles is now moved from subparagraph (e)(5)(F) to this paragraph. Daily inspections are clarified to include days when no earth-moving activities are occurring, which is consistent with the original intent of the provision.

For stabilized stockpiles, daily inspections must include demonstration that stabilized stockpiles are stabilized pursuant to one or more South Coast AQMD dust control test methods. For covered stockpiles, daily inspection must include visual examination that stockpile covers are in good condition with no soil exposed to the atmosphere. Additionally, inspection includes verifying that labeling on contaminated stockpiles is accurate, affixed properly, and legible. Lastly, language that implied that re-stabilizing stockpiles or repairing holes or tears in covers is only necessary after inspections is now removed.

Paragraph (e)(13)

The specifications for use of a chemical stabilizer that were previously contained in the definition of the term "chemical stabilizer" are now included as requirements set forth in paragraph (e)(13) to ensure stockpiles and potential sources of fugitive dust are stabilized at all times when there is no earth-moving activity and ambient monitoring occurring.

Paragraph (e)(14)

Requirements for stockpile covers that were contained in subparagraph (e)(5)(F) are now included as requirements set forth in paragraph (e)(14). The unit of measurement for cover thickness is corrected to say "mil" not "millimeter". Language is also added to allow covers thicker than 10 mil.

Paragraph (e)(15)

PAR 1466 expands the enhanced fugitive dust control measures that apply to schools, joint use agreement properties, and adjacent athletic areas, to sites that are adjoining a school, joint use agreement property, or adjacent athletic area. This will further protect children from a cleanup operation that is adjoining a school-related property. To be consistent with the changes in paragraphs (e)(6) and (e)(7) and with paragraphs (k)(3) and (k)(4), the direct soil loading into trucks is clarified to specify direct loading into truck beds or trailers.

Former Paragraph (e)(12)

PAR 1466 removes the general provision to allow use of alternative dust control measures. Alternatives previously identified over the past three years of rule implementation are instead included within the language of the rule where appropriate.

Notification Requirements (Subdivision (f))

Operators have provided input to staff about the lack of a provision addressing notifications of earth-moving activities of soils with applicable toxic air contaminant(s) that exceed 50 cubic yards after the activities have started. Staff has also requested that a notification be provided when earth-moving operations have concluded for the project.

Paragraph (f)(1)

PAR 1466 includes notification requirements for sites that exceed 50 cubic yards after the activities have started in clause (f)(1)(A)(ii). Those sites will be required to notify South Coast AQMD as soon as the information becomes available, but no later than 48 hours after the 50 cubic yard threshold has been exceeded. To be consistent with the enhanced provisions at properties adjoining schools, joint use agreement properties, and adjacent athletic areas, clause (f)(1)(B)(v) now includes notification if the site is adjoining a school, joint use agreement property, or adjacent athletic area.

Paragraph (f)(2)
PAR 1466 subparagraph (f)(2)(D) is added to require notification when the project's earth-moving activities are completed. Cleanup is deemed complete when there will be no further earth-moving activities and not necessarily when the designating agency removes the designation from the site. Notifying staff of project completion assists staff in inspection planning and complaint investigations.

Paragraph (f)(3)
When an exceedance occurs, subparagraph (f)(3)(E) will now require that the wind direction and speed and location of the PM_{10} monitors be provided as part of the notification. This will ensure that the monitors are appropriately being designated as upwind and downwind.

Signage Requirements (Subdivision (g))
Signage is required to inform the community that the site may contain soils with toxic air contaminants. PAR 1466 retains the provision to allow requests for alternative signage, and several alternative provisions are proposed to be incorporated into this subdivision.

Paragraph (g)(1)
Clause (g)(1)(D)(ii) clarifies that on the signage, in addition to the facility contact, the phone number of the site operator or pre-recorded notification center specified in clause (g)(1)(D)(i) is required. PAR 1466 also separates paragraph (g)(1) into several parts. The provision allowing smaller lettering to list applicable toxic air contaminant(s) if the signage exceeds 48 inches by 96 inches is moved to paragraph (g)(2). Finally, the requirement for Executive Officer approval for alternative signage that was in paragraph (g)(2) is now moved to paragraph (g)(3).

Paragraph (g)(4)
PAR 1466 paragraph (g)(4) includes an exclusion for signage that would not require Executive Officer approval. Signage is not required along any section of the perimeter that is not visible and not accessible to the public. This exclusion does not apply to a perimeter that is a school, joint use agreement property, or adjacent athletic area or to a perimeter that is adjoining a school, joint use agreement property, or adjacent athletic area.

Recordkeeping Requirements (Subdivision (h))
Records are required to assist in the enforcement of the provisions of the rule.

Paragraph (h)(1)
Additional records are required to note that re-stabilization, cover repair, and label maintenance have been conducted.

Paragraph (h)(2)
Ambient PM_{10} data, rolling average concentrations and calculations, wind direction and speed, movement of monitoring instruments corresponding to wind direction changes, proof of valid calibration of the monitors per manufacturer's recommended schedule (e.g. log inside the instrument firmware, manufacturer sticker on the instrument, manufacturer-issued certificate), manual zero or auto-zero check results, zero calibration records, intra-instrument precision test results, and instrument logs will be required.

Paragraph (h)(3)
Records of all instrument maintenance activities, including the dates and times of these activities, will be required. Instrument maintenance activities include zero calibration when there is zero drift

in the monitor readings, instrument cleaning and filter replacement after high particulate emission events (e.g. smoke from wildfires, high wind dust events), and instrument performance checks.

Paragraph (h)(4)
Documentation of all DAS and data management system failures will be required. The documentation should include the date and time of the failure, the date and time of the correction of the failure, the technical issue causing the failure, and steps taken to correct the failure and restore the failed DAS or data management system to working condition.

Paragraph (h)(8)
Copies of all submitted notifications for the project, either maintained on paper or electronic form, will be required.

Executive Officer Designated Sites (Subdivision (i))

For consistency and to further protect children from a cleanup operation that is adjoining a school-related property, PAR 1466 adds that distance to a joint use agreement property, adjacent athletic area, or a site adjoining a school, joint use agreement property, or adjacent athletic area be considered by the Executive Officer when designating a site.

Alternative Provisions (Subdivision (j))

Currently, Rule 1466 allows alternative dust control measures, ambient dust concentration limits, signage, and other alternative provisions upon Executive Officer approval. Alternative provisions were originally included when the rule was newly adopted to allow for flexibility to meet the rule requirements, ensuring the requirements were feasible and not disruptive to cleanup operations. Review of alternative provisions requests is resource intensive as the Executive Officer must evaluate that the alternative measure meets the same objectives and effectiveness as the provision the alternative is replacing. Over the three-year implementation period, no alternative measures were requested for a number of these provisions. PAR 1466 will incorporate additional measures as appropriate into the applicable provisions and remove alternative provisions for dust control measures, ambient dust concentration limits, and other requirements to streamline requirements. Alternative provision requests for signage requirements are retained and incorporated within the language of the rule. To align with the removal of alternative provisions for dust control measures, *Appendix 2 - Objectives and Effectiveness of Dust Control Measures Set Forth in Subdivision (e)* is proposed to be deleted. Proposed paragraph (j)(5) allows projects that currently have approved alternative provisions to continue using those provisions until their expiration dates, which will not be allowed to be renewed or extended.

Exemptions (Subdivision (k))

Exemptions provide regulatory flexibility for smaller or specialized cleanup operations. Currently, exemptions are provided for operations vented to air pollution control, linear trenching, excavations of less than 500 cubic yards, emergencies, and utility outages.

Paragraphs (k)(3) and (k)(4)
The alternative provisions for direct truck loading have been removed. Over the three-year implementation period, no alternative measures were requested for these provisions. To be consistent with the changes in paragraphs (e)(6) and (e)(7), direct soil loading into a truck is clarified to specify direct loading into a truck bed or trailer. Additionally, the requirements of stockpile inspections in paragraph (e)(12) and stockpile covering in paragraph (e)(14) are removed

as these requirements will no longer be applicable due to the removal of alternative provisions for these two exemptions.

Paragraphs (k)(5) and (k)(6)

"Active operations" is replaced with "on-site earth-moving activities" for consistency with the applicability of the rule to earth-moving activities on cleanup sites.

Table I - Applicable Toxic Air Contaminants

Table I lists the substances that applicable to Rule 1466. For clarification, congener names of the polychlorinated biphenyls (PCBs) listed in Table I - Applicable Toxic Air Contaminants are added. To clarify questions regarding whether or not Aroclors are included in Table I, the PCB with Chemical Abstract Service (CAS) Number 1336-36-3 does include Aroclors. In December 2017, Rule 1466 was amended to expand the list of applicable toxic air contaminants to include pesticides, herbicides, other metals, and persistent bioaccumulative toxics commonly found at contaminated sites above background levels. The expanded list became effective January 1, 2018. As this effective date has passed, PAR 1466 will remove reference to this effective date.

Appendix 1 - Rule 1466 Approved PM_{10} Monitors

Rule 1466 Appendix 1 currently provides alternative Executive Officer approved PM_{10} monitor requirements. PAR 1466 Appendix 1, now titled "Rule 1466 Approved PM_{10} Monitors," separates current requirements into physical and performance requirements for monitor approval.

Physical Requirements

The requirement for volumetric flow controller is removed and replaced with the requirement for a sample pump with an active flow control mechanism. The requirement for a volumetric flow controller excludes instruments with different flow control mechanisms (e.g. mass) from being pre-approved. This clarifies the requirement that monitors need to be equipped with a flow control mechanism and excludes monitors with no flow control mechanism and passive sampling devices. A requirement for conductive tubing that minimizes particle loss to be used for any external tubing used to carry sampled air, is added.

Performance Requirements

Throughout implementation of the Rule 1466 monitor approval requirements, staff has observed that manufacturers establish accuracy differently and some do not include accuracy in their instrument specification materials. "Accuracy" is the difference between the instrument measured value and a true value obtained by a reference method. To standardize the accuracy performance requirement for Rule 1466 approved monitors, PAR 1466 clarifies that accuracy be determined through factory testing against a U.S. EPA Federal Reference Method or Federal Equivalent Method, and the accuracy limit be demonstrated for a minimum of 30 measurements, each averaged over 24 hours. The minimum of 30 measurements is prescribed in Table C-4 of 40 CFR Part 53 Subpart C[8] for measuring accuracy for PM_{10} candidate equivalent methods. PAR 1466 also adds a statistical parameter, a coefficient of determination (R^2) value of ≥ 0.95 obtained from simple linear regression, as an option to demonstrate accuracy. A requirement for the flow control accuracy of ± 5 percent of factory setpoint for the active flow sample pump is added. Additionally, a provision is added and allows monitors that have a valid Monitoring Certification Scheme certification meeting the latest version of *Monitoring Certification Scheme* (*MCERTS):*

[8] "Test Specifications for PM_{10}, $PM_{2.5}$ and $PM_{10-2.5}$ Candidate Equivalent Methods" *Code of Federal Regulations* Title 40, Part 53, Subpart C, Table C-4.

Performance Standard for Indicative Ambient Particulate Monitors to be exempt from meeting the performance requirements. These performance standards were used as a reference to develop the instrument requirements for this rule. Additionally, MCERTS certification is widely used by manufacturers to demonstrate instrument performance and reliability.

Quality Assurance/Quality Control Requirements

"Span" was removed from the language regarding daily instrument performance checks as span checks are typically with gas and vapor direct-reading instruments. Additional recordkeeping to demonstrate compliance with the quality assurance/quality control requirements for the monitors are added into subdivision (h).

Appendix 2 - Procedures to Demonstrate Intra-Instrument Precision

Appendix 2 includes the procedures and calculations necessary to demonstrate intra-instrument precision as required by paragraph (d)(7) as well as procedures necessary to conduct the manual zero check as required by paragraph (d)(8).

Steps 1 through 3 set up the PM_{10} monitors for testing and ensure variables that contribute to differences in ambient measurement such as inlet height, monitor location, and instrument performance are consistent for the purpose of testing intra-instrument precision. All monitors to be tested must be:

1. The same in make and model, settings, and configuration;
2. Collocated such that the sampling inlets are the same height and between one and four meters apart; and
3. Powered on with the heated sampler inlet and fully warmed-up or have stabilized readings.

Steps 4 and 5 are the last preparation steps to ensure measurement errors are minimized before starting the intra-instrument precision test. Step 4 requires zero-calibrating each monitor in accordance with manufacturer's instructions, then confirming the validity of each zero calibration by performing a manual zero check. Zero calibration is a procedure to correct an instrument for measurement drift and ensure the instrument is clean and there are no interferences. A zero check indicates that the instrument is reading "0" when measuring clean (zero particle) air. To conduct the manual zero check, the sampling inlet is removed and a HEPA or zero air filter is installed on the inlet of the monitor. If the monitors have an auto-zero check feature that directs filtered particle-free air into the measurement chamber, a passing zero check in accordance with manufacturer's instructions can be conducted in lieu of conducting the manual zero check. Step 5 requires logging of the PM_{10} readings every minute for at least 10 minutes while the HEPA or zero air filter is installed on the inlet and demonstrating an average of zero ± 3 $\mu g/m^3$ from the logged PM_{10} readings for each monitor as required by paragraph (d)(8). If the average PM_{10} readings do not result in zero ± 3 $\mu g/m^3$ or the auto-zero check fails for any of the monitors, then the monitor must be zero-calibrated again and/or corrected for any issue(s) causing the zero check failure and pass another manual zero check. After each monitor passes the manual zero or auto-zero check, the intra-instrument precision test can begin.

Steps 6 through 8 contain the actual intra-instrument precision test including the equations necessary to calculate the intra-instrument precision pursuant to paragraph (d)(7). This requires placing any sampling inlet that was removed back on the monitor and after 10 minutes of waiting, running the monitors simultaneously and logging the PM_{10} readings every minute for at least 60 minutes. Step 7 specifies the equations to be used to calculate the intra-instrument precision. If the

logged PM_{10} readings in Step 6 are ≥ 15 μg/m^3, then the intra-instrument precision must be calculated pursuant to Step 7a. Step 7a contains the calculations corresponding to the 25 percent intra-instrument precision limit as specified in subparagraph (d)(7)(A) as a percent relative standard deviation or correlation of variation among the averaged PM_{10} readings calculated for each tested monitor from the data logged during Step 6. If the logged PM_{10} readings in Step 6 are < 15 μg/m^3, then the intra-instrument precision must be calculated pursuant to Step 7b. Step 7b contains the calculations corresponding to the 5 μg/m^3 intra-instrument precision limit as specified in subparagraph (d)(7)(B) as a standard deviation among the among the averaged PM_{10} readings calculated for each tested monitor from the data logged during Step 6. Step 8 requires recording the results of the calculations performed in Step 7.

CHAPTER 3: IMPACT ASSESSMENT

POTENTIALLY IMPACTED SITES

COMPLIANCE COSTS

SOCIOECONOMIC IMPACT ASSESSMENT

CALIFORNIA ENVIRONMENTAL QUALITY ACT

DRAFT FINDINGS UNDER CALIFORNIA HEALTH AND SAFETY CODE SECTION 40727

COMPARATIVE ANALYSIS

POTENTIALLY IMPACTED SITES

A review of Rule 1466 initial notifications submitted between 2019 and 2020 indicate approximately 32 sites per year have been subject to Rule 1466. Many of the initial notifications were submitted for multiple projects stemming from the Exide cleanup site. The number of applicable sites can fluctuate based on sites that meet the applicability provisions. The proposed amendments in PAR 1466 will not increase the number of affected sites.

COMPLIANCE COSTS

Proposed additional requirements for PM_{10} monitoring, stabilization of soil, and dust control measures for sites adjoining schools, joint use agreement properties, and adjacent athletic areas will add some compliance costs to owners or operators. The costs are estimated using actual costs provided by facilities, instrument vendors, and cost estimates from previous rulemaking efforts for Rule 1466.

The requirement to have the heated inlet on at all times when operating the PM_{10} monitors will increase power usage by approximately 200 watts per hour. While the electricity usage and cost is negligible, some sites may have to provide an electrical connection or additional solar panels. The cost to provide the electrical connection is estimated to be $500 and the cost of additional solar panels is estimated to be $1,000 to $2,000 per site. In sum, the additional cost to have the heated inlet on at all times when operating the monitors will be between $16,000 to $64,000 per year.

The data management system needed to calculate and log the rolling 120-minute average will cost approximately $2,100 for the system and data plan per site. Conservatively estimating that all of the sites will require an electrical connection and a data management system, the total annual cost increase will be approximately $83,200.

Increasing the frequency of stabilizing the soil daily rather than when activity stops for three or more days will add approximately $500 for water and dust suppressants per site. The estimated annual cost increase is $16,000.

An estimated one site per year will be adjoining a school and be required to meet more stringent standards. From the Socioeconomic Assessment in June 2017 Final Staff Report for Proposed Rule 1466, the site adjoining a school-related property is expected to increase the use of water and dust suppressants and plastic sheeting to minimize fugitive dust from directly loaded soils prior to transport and install additional fencing for stockpiles. The estimated annual cost increase for these additional measures is $4,200 per year.

The annual total cost increase resulting from PAR 1466 is estimated to be between $3,600 and $5,100 per typical site and between $7,800 and $9,300 per site adjoining a school, joint use agreement property, or adjacent athletic area. These annual total cost increases do not include the annualization of one-time costs of the electrical connection or additional solar panels for the heated inlet sampler and the data management system using a capital recovery factor based on the expected equipment life.

SOCIOECONOMIC IMPACT ASSESSMENT

California Health & Safety Code §40440.8 requires a socioeconomic impact assessment for proposed and amended rules resulting in significant impacts to air quality or emission limitations.

This assessment shall include affected industries, range of probable costs, cost effectiveness of control alternatives, and emission reduction potential. Proposed Amended Rule 1466 - Control of Particulate Emissions from Soils with Toxic Air Contaminants (PAR 1466) would require affected facilities to purchase additional equipment and increase power usage to meet the PM_{10} monitoring requirements, as well as incur additional costs for fugitive dust suppression and soil stabilization.

Affected Facilities and Industries

PAR 1466 is expected to potentially affect a total of 32 sites per year, based on initial notifications received between 2019 and 2020. Many of the initial notifications were related to the Exide facility cleanup site, and the actual number of notifications can fluctuate based on sites that meet Rule 1466 applicability. About 40 percent of the affected facilities belong to the sector of lessors of real estate (North American Industrial Classification System [NAICS] code 5311). As presented in Table 3-1, 75 percent of the potentially affected sites are in Los Angeles County, while the remaining 25 percent are located in Orange, Riverside, and San Bernardino counties.

Table 3-1: PAR 1466 Affected Number of Facilities by County (2019 - 2020)

County	Affected Facilities
Los Angeles	24
Orange	5
Riverside	2
San Bernardino	1
Total	**32**

Costs

PAR 1466 would require affected facilities to install and purchase equipment to meet PM_{10} monitoring requirements and dust minimization provisions. The enhanced monitoring provisions require the purchase of data management systems, and electrical installations to allow for calculating 120-minute rolling PM_{10} concentration averages. In addition, PAR 1466 requires additional soil stabilization for affected facilities. The cost estimates were based on actual data provided by facility operators, instrument vendors, and cost estimates from previous rulemaking efforts for Rule 1466. All estimated 32 sites are expected to incur an equal share of the PAR 1466 compliance costs, except for one potential site that is adjoining a school that is expected to incur additional costs to meet the enhanced fugitive dust minimization requirements for sites adjoining schools, joint use agreement properties, or adjacent athletic areas.

Data Management Systems

Effective January 1, 2022, PAR 1466 would require Data Acquisition Systems to log 120-minute average PM_{10} concentrations, calculated on a rolling basis every minute. Integration of the Data Acquisition System to a data management system with a data plan may be needed to conduct the new PM_{10} calculation requirements. The data management system is expected to cost about $1,300 per site (one-time), and the data plan for the data management system is expected to cost about $825 per year. Projects subject to Rule 1466 can last longer or shorter than a year.

Electricity

The use of PM_{10} monitors with heated inlets for PM_{10} monitoring will require additional power to run the heated inlet at all times, which can be provided through electrical connection or solar

panels. An additional electrical connection is estimated at $500 per site (one-time cost). Additional solar panels to power the heated inlet is expected to range from $1,000 to $2,000 per site (one-time). Increased power usage on the heated inlets for PM_{10} monitors required by PAR 1466 is expected to be about 200 watts per hour. Assuming a rate of $0.15 per kw/h, increased annual electrical costs will be about $500 per site assuming a minimum of two monitors operating on the site ($250 per monitor), or $16,800 across all sites.

Dust Control and Soil Stabilization

Dust suppression requirements in PAR 1466 would require increased water and/or dust suppressant usage to reduce fugitive dust. An estimated cost of $500 per site is expected to comply with this requirement. It is estimated that one site may be classified as a site that is adjoining a school. The site adjoining a school will be required to use additional dust minimization measures including additional water and dust suppressants, stockpile fencing, and plastic sheeting for directly loaded soils prior to transport at an estimated annual cost of $4,200.

Cost Summary

One-time costs were annualized using a capital recovery factor based on the expected life of the equipment. Recurring costs were calculated as annual costs and are expected to reoccur throughout the use of the associated equipment. In total, the annual cost of all PAR 1466 expected compliance costs is about $67,000 across all facilities. Table 3-2 below shows the breakdown of costs by industry. Lessors of real estate (NAICS 5311) account for about 44 percent of the total affected universe under PAR 1466, and account for over 47 percent of the total share of costs.

Table 3-2: PAR 1466 Annual Compliance Costs by Industry

6-digit NAICS	NAICS Industry Description	Number of Sites Potentially Affected by PAR 1466	Annual Cost to Industry	Percent of Total Cost
221122	Electric Power Distribution	2	$3,913	5.9%
423930	Recyclable Material Merchant Wholesalers	1	$1,956	2.9%
482111	Line-Haul Railroads	1	$1,956	2.9%
485113	Bus and Other Motor Vehicle Transit Systems	1	$1,956	2.9%
488310	Port and Harbor Operations	1	$1,956	2.9%
531110	Lessors of Residential Buildings and Dwellings*	7	$17,914	26.8%
531120	Lessors of Nonresidential Buildings (except Mini-warehouses)	7	$13,694	20.5%
611110	Elementary and Secondary Schools	1	$1,956	2.9%
621498	All Other Outpatient Care Centers	1	$1,956	2.9%
622110	General Medical and Surgical Hospitals	1	$1,956	2.9%
924110	Administration of Air and Water Resource and Solid Waste Management Programs	5	$9,781	14.6%
925110	Administration of Housing Programs	1	$1,956	2.9%
925120	Administration of Urban Planning and Community and Rural Development	1	$1,956	2.9%
562212	Solid Waste Landfill	2	$3,913	5.9%
Total		**32**	**$66,821**	**100%**

* One site within this category incurs additional cost for additional dust minimization requirements as it is adjoining a school.

Regional Macroeconomic Impacts

South Coast AQMD does not estimate regional macroeconomic impacts when the total annual compliance cost is less than one million current U.S. dollars as the Regional Economic Models Inc. (REMI)'s Policy Insight Plus Model is not able to reliably evaluate impacts that are so small relative to the baseline regional economy.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

Pursuant to the California Environmental Quality Act (CEQA) Guidelines Sections 15002(k) and 15061, the proposed project is exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3). A Notice of Exemption ~~will be~~has been prepared pursuant to CEQA Guidelines Section 15062. If the proposed project is approved, the Notice of Exemption will be electronically filed with the State Clearinghouse of the Governor's Office of Planning and Research to be posted on their CEQAnet Web Portal, which may be accessed via the following weblink: https://ceqanet.opr.ca.gov/search/recent. In addition, the Notice of Exemption will be electronically posted on the South Coast AQMD's webpage which can be accessed via the following weblink: http://www.aqmd.gov/nav/about/public-notices/ceqa-notices/notices-of-exemption/noe---year-2021. The electronic filing and posting of the Notice of Exemption is being implemented in accordance with Governor Newsom's Executive Orders N-54-20 and N-80-20 issued on April 22, 2020 and September 23, 2020, respectively, for the State of Emergency in California as a result of the threat of COVID-19.

DRAFT FINDINGS UNDER CALIFORNIA HEALTH AND SAFETY CODE SECTION 40727

Requirements to Make Findings

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

Necessity

Proposed Amended Rule 1466 is needed clarify, update, and enhance provisions addressing monitoring, PM_{10} calculation, dust control measures, signage, and notifications to ensure the provisions are enforceable, eliminate areas of confusion, and further minimize fugitive dust emissions to the surrounding community.

Authority

The South Coast AQMD Governing Board has authority to adopt amendments to Rule 1466 pursuant to the California Health and Safety Code Sections 39002, 39650 et. seq., 40000, 40001, 40440, 40441, 40702, 40725 through 40728, 41508, 41511, 41700, and 41706.

Clarity

Proposed Amended Rule 1466 is written or displayed so that its meaning can be easily understood by the persons directly affected by it.

Consistency

Proposed Amended Rule 1466 is in harmony with and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations.

Non-Duplication

Proposed Amended Rule 1466 will not impose the same requirements as any existing state or federal regulations. The proposed amended rule is necessary and proper to execute the powers and duties granted to, and imposed upon, the South Coast AQMD. South Coast AQMD Rule 403

has some similar provisions but there is minimal overlap between the two rules for Rule 403 sites, of which only a small subset are also subject to Rule 1466. Generally Rule 1466 has more stringent provisions than Rule 403. Where there is overlap in provisions between Proposed Amended Rule 1466 and Rule 403, the more stringent provision applies.

Reference

By adopting Proposed Amended Rule 1466, the South Coast AQMD Governing Board will be implementing, interpreting or making specific the provisions of the California Health and Safety Code Section 41700 (nuisance), and Federal Clean Air Act Section 112 (Hazardous Air Pollutants), and Section 116 (Retention of State authority).

Rule Adoption Relative to Cost-Effectiveness

On October 14, 1994, the Governing Board adopted a resolution that requires staff to address whether rules being proposed for amendment are considered in the order of cost-effectiveness. The 2016 Air Quality Management Plan (AQMP) ranked, in the order of cost-effectiveness, all of the control measures for which costs were quantified. It is generally recommended that the most cost-effective actions be taken first. Although TXM-04 is a control measure that was included in the 2016 AQMP, Proposed Amended Rule 1466 was included in the 2016 AQMP as a toxic control measure and was not ranked relative to other criteria pollutant control measures in the 2016 AQMP.

Incremental Cost-~~effectiveness~~Effectiveness

Health and Safety Code Section 40920.6 requires an incremental cost effectiveness analysis for Best Available Retrofit Control Technology (BARCT) rules or emission reduction strategies when there is more than one control option which would achieve the emission reduction objective of the proposed amendments, relative to ozone, carbon monoxide, sulfur oxides, oxides of nitrogen, and their precursors. Since Proposed Amended Rule 1466 is a toxic rule that is designed to reduce toxic air contaminants, the incremental cost effectiveness analysis requirement does not apply.

COMPARATIVE ANALYSIS

Health and Safety Code Section 40727.2 requires a comparative analysis of the proposed amended rule with any Federal or District rules and regulations applicable to the same source. There are no applicable Federal rules.

	Proposed Amended Rule 1466	Rule 403	Rule 1166	Rule 1157	Rule 1403	Rule 1156
Purpose	Control fugitive toxic air contaminant emissions during earth-moving activities	Reduce anthropogenic fugitive dust	Control of VOC emissions (including toxic VOCs) from earth-moving activities	Control PM_{10} emissions from aggregate activities	Limit asbestos emissions	Reduce particulate matter (PM) and hexavalent chromium (Cr^{6+}) emissions
Applicability	Designated cleanup sites with specified toxic air contaminants; Executive Officer designated cleanup sites based on a set of criteria	Any activity or anthropogenic condition capable of generating dust	VOC contaminated soils	Sand, gravel, quarried rock operations	Building demolition and renovation activities	Cement manufacturing operations and the property
Monitoring	120-minute rolling average 25 $\mu g/m^3$ differential limit for PM_{10} emission; Meteorological monitoring	If monitored, five-hour 50 $\mu g/m^3$ differential limit for PM_{10} emission	15-minute monitoring of VOC emissions	None	None	Monitoring of: Cr^{6+}, wind, and PM_{10} if owner/operator accrues three or more notices of violation for Rule 403 exceedance within 36-month period

	Proposed Amended Rule 1466	Rule 403	Rule 1166	Rule 1157	Rule 1403	Rule 1156
General Controls	Perimeter fencing and windscreen	Perimeter fencing and windscreen	None	None	Removal procedures	None
	Application of chemical stabilizers or dust suppressants during earth-moving activities	Adequately wet during earth-moving activities	Water or vapor suppressants for VOC concentrations > 1000 ppmv	None	Handling procedures	Application of dust suppressants
	Cease earth-moving operations during high wind conditions	During high wind conditions some requirements do not apply	None	None	None	Cease open handling of clinker material during high wind conditions
	Onsite compliance supervisor	Onsite compliance supervisor (large sites only)	None	None	Onsite compliance supervisor	None
	Earth-moving not allowed during hours of operation or facility-sponsored activities when conducted on or adjacent to school, early education center, or joint use agreement properties	None	None	None	None	None
Vehicle Controls	Vehicle speed limit	Vehicle speed limit (large sites only)	None	Vehicle speed limit	Vehicle marking	Vehicle speed limit
	Stabilize road and parking surfaces	Stabilize road and parking surfaces	None	Stabilize road and parking surfaces	None	Stabilize or apply gravel pad to roads
	Clean departing vehicles	None	None	None	None	Truck cleaning on site
	Limited track out	Limited track out	None	Limited track out	None	No track out
	Vehicle egress	Vehicle egress	None	Vehicle egress	None	Vehicle egress
	No internal paved road sweeping provision	None	None	None	None	Sweep internal paved roads

	Proposed Amended Rule 1466	Rule 403	Rule 1166	Rule 1157	Rule 1403	Rule 1156
Stockpile Controls	Limited size	None	None	Limited size	Leak-tight containers	None
	Adequately wet or chemically stabilized	Adequately wet or chemically stabilized	Wet or apply vapor suppressant	Adequately wet or chemically stabilized	None	Apply chemical dust suppressant
	Covered during inactivity	None	Covered during inactivity	Apply chemical stabilizer during inactivity	None	Covered
	Daily inspection	None	Daily inspection	None	None	Records of status of inactive clinker stockpiles
	Segregate	None	Segregate	None	None	None
	Limited at or adjacent to schools, early education centers and joint use agreement properties	None	None	None	None	None
	No freeboard requirement	None	None	None	None	Freeboard requirements
	No wind fence	None	None	None	None	Wind fence
Loading, Unloading and Transferring Controls	Adequately wet	Adequately wet	Moisten with additional water for VOC concentrations > 1000 ppmv	None	None	Apply dust suppressants as necessary
	Loading techniques	Loading techniques	Loading as soon as possible for VOC concentrations > 1000 ppmv	None	None	Minimize height of drop
	Stabilize and cover loads	Cover loads (contingency only)	Cover loads	None	None	Close cement truck hatches
	No requirement for enclosed system	None	None	None	None	Conduct in enclosed system vented to South Coast AQMD permitted air pollution control device
	No requirement for enclosed conveying systems and transfer points	None	None	None	None	Cover or enclose all conveying systems and enclose all transfer points
	No requirement for belt conveying system	None	None	None	None	Dust curtains, shrouds, belt scrapers, and gaskets along belt conveying system

	Proposed Amended Rule 1466	Rule 403	Rule 1166	Rule 1157	Rule 1403	Rule 1156
Notification	Prior to commencing and at the end of earth-moving activities	Prior to commencing earth-moving activities (large sites only)	Prior to commencing earth-moving activities	None	Prior to commencing asbestos handling	None
	Exceedances of PM_{10} limit	None	None	None	Changes in quantity or schedule	Exceedance of Cr^{6+}, failing source testing compliance limits
	No advisory flyer requirement	None	None	None	None	Fugitive Dust Advisory flyer
Signage	Entrances and along perimeter	Entrances and along perimeter (large sites only)	None	None	Entrances and along perimeter	None
Recordkeeping	Monitoring results, dust control actions taken, stockpile inspections, volume of soil removed, transport information, complaints, intra-instrument precision testing and zero calibration, instrument maintenance and logs	Dust control actions taken (large sites only)	VOC concentration readings; stockpile inspections, transport information	Dust control actions, transport information	Control actions, survey data, notifications, training information, transport information	Dust control and cleaning activities, operation and production records, test reports, equipment records, material handling, monitoring data, maintenance activities, clinker pile reclamation, vehicle traffic

APPENDIX I: COMMENTS AND RESPONSES

Comment Letter 1

Aeroqual – March 11, 2021

Aeroqual feedback on Proposed Amended Rule 1466 (cont.) (Amended December 1, 2017)
PAR 1466 - 25

11th March 2021

Section d

(3) (H)On and after January 1, 2022, prior to conducting any on-site earth-moving activities, and ~~weekly~~ monthly thereafter, run intra-instrument precision tests with the PM_{10} monitors in accordance with *Appendix 2 – Procedures to Demonstrate Intra-Instrument Precision,* demonstrate~~e~~ing an intra-instrument precision of no more than ~~a~~ 2 micrograms per cubic meter or an intra-instrument relative precision of less than ~~a~~ 5 percent; and

Geoff Henshaw
Weekly is very onerous. Drift rates are such that monthly should be sufficient.

1-1

(3) (I) On and after January 1, 2022, ~~each day prior to conducting on-site earth-moving activities,~~ perform a manual or automatic zero test daily on each PM_{10} monitor in accordance with manufacturer's instructions.

Geoff Henshaw
A daily test makes sense but restricting the timing of it to the start of the day seems unduly onerous without a clear benefit.

1-2

(6) When on-site earth-moving activities occur, the owner or operator shall monitor wind direction and speed as specified in U.S. EPA *Quality Assurance Handbook for Air Pollution Measurement Systems, Volume IV: Meteorological Measurements*.

Geoff Henshaw
This is very high standard of measurement for wind speed and direction. Do you expect a site operator to install a 10 m met tower? Alternatively the rule could require a wind sensor to be fitted to one of the PM10 monitors or the site operator could rely on publicly available wind data.

1-3

Appendix 1 – Executive Officer Rule 1466 Approved PM_{10} Monitors

The Executive Officer may approve PM_{10} monitors that meet the following physical and performance requirements. Monitors that have a valid *Monitoring Certification Scheme* certification meeting the latest version of the *Monitoring Certification Scheme (MCERTS): Performance Standard for Indicative Ambient Particulate Monitors* may be exempt from meeting the requirements listed below.

Geoff Henshaw
We suggest this is moved to the top of the page and that MCERTS approved monitors may be exempt from both the physical and performance requirements since MCERTS approval is a comprehensive and robust test method.

1-4

1. Physical Requirements
   - 1.1. PM_{10} monitors must shall be continuous direct-reading near-real time monitors and shall monitor particulate matter less than 10 microns.
   - 1.2. PM_{10} monitors must shall be equipped with:
     - 1.2.a. Omni-directional heated sampler inlet;
     - 1.2.b. Sample pump with active flow control mechanism and stated flow control accuracy of ±5 percent of factory setpoint;
     - 1.2.c. Enclosure; and
     - 1.2.d. Data logger capable of logging each data point with average concentration, time/date, and data point number; and
     - 1.2.e. For any external tubing used to carry sampled air prior to measurement, conductive tubing to minimize particle loss.

2. Performance Requirements
   - 2.1. PM_{10} monitors must shall have the following minimum performance standards:
     - 2.1.a. Range: 0 - 10,000 µg/m3;
     - 2.1.b. Accuracy: ±5% percent of reading ± precision;
     - 2.1.c. Resolution: 1.0 µg/m3; and
     - 2.1.d. Measurement Cycle: User selectable (30 thirty minute and 2 two hour).
   - 2.2 ~~Monitors that have a valid *Monitoring Certification Scheme* certification meeting the latest version of the *Monitoring Certification Scheme (MCERTS): Performance Standard for Indicative Ambient Particulate Monitors* may be exempt from meeting the performance requirements listed above, but shall meet all stated physical requirements.~~

1-5

3. Quality Assurance/Quality Control Requirements
In order to ensure the validity of the PM_{10} measurements performed, there shall be appropriate Quality Assurance/Quality Control (QA/QC). It is the responsibility of the owner or operator to adequately supplement QA/QC Plans to include the following critical features: instrument calibration, instrument maintenance, operator training, and daily instrument performance ~~(span)~~ checks.

Jason Thongplang
"Spanning" typically refers to supplying a known concentration of gas (at the 'span' concentration of around 75 to 80 per cent of the full scale range) and altering the instrument response to read the correct concentration. How would a site operator perform daily span checks on a PM instrument?

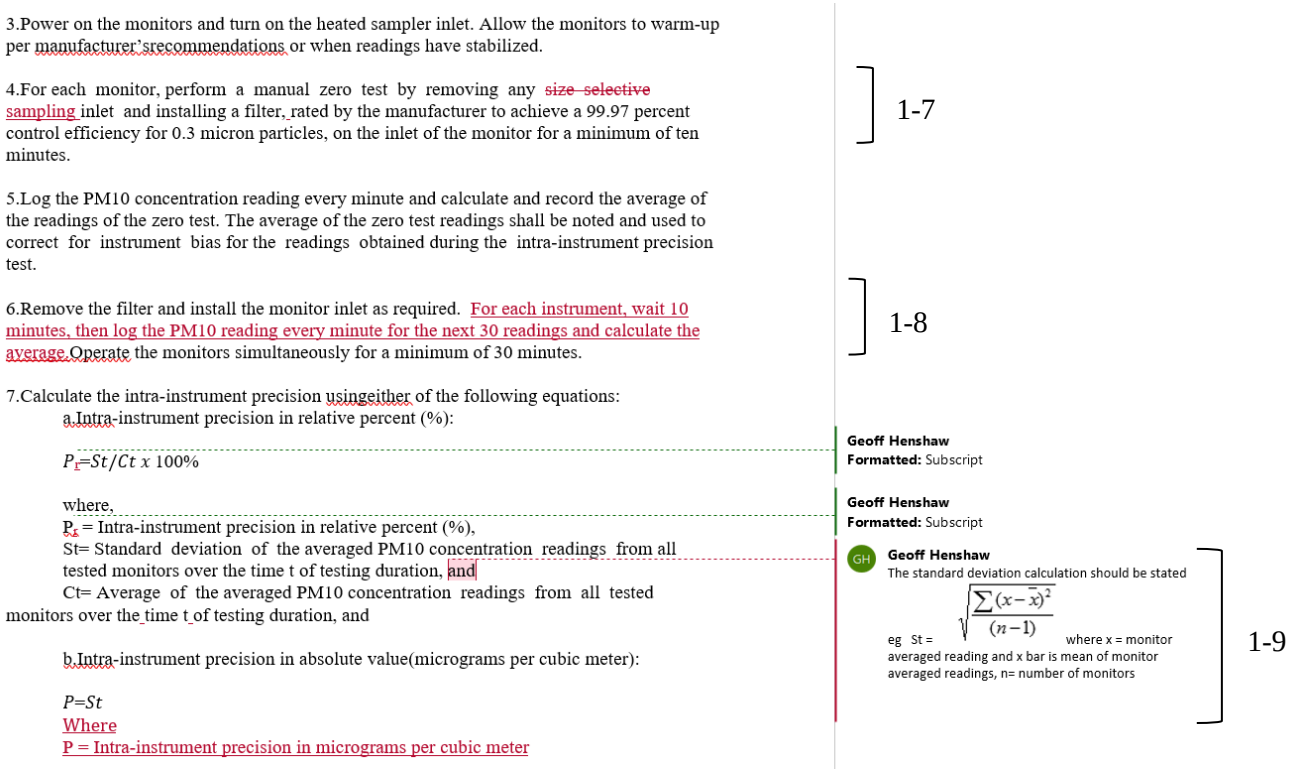
1-6

Appendix 2 –Procedures to Demonstrate Intra-Instrument Precision

An owner or operator shall perform the following procedures to demonstrate the intra-instrument precision of all PM10 monitors as required in subparagraph (d)(3)(H):

1.Ensure monitors are identical in make and model, settings, and configuration.

2.Ensure monitor inlets are at the same height and located within four meters of each other but no less than one meter apart for the duration of the test.



Response to Comment 1-1

Typically earth-moving activities for a project are conducted on a Monday to Friday schedule, with weekends being nonworking days. Since monitors would most likely not be operating on the weekends, staff believes weekly intra-instrument precision tests are needed to ensure measurements are continuously precise. A weekly intra-instrument precision test will also ensure measurements are accurate and precise for instances when projects have a duration of a month or less, another monitor(s) has to be introduced to the site, or a monitor(s) has to be replaced.

Response to Comment 1-2

Staff has revised this proposed language to require monitors pass a daily manual zero or auto-zero check prior to conducting earth-moving activities. Normally the daily schedule of earth-moving activities follow a typical workday (i.e. begin activity in the morning and end activity in the afternoon or evening), and therefore, monitoring would stop after the end of the workday and begin again on the next workday. Conducting a zero check prior to earth-moving activities confirms that the zero calibration on the instrument is still valid and ensures that measurement errors continue to be minimized before monitoring begins. Furthermore, time needed to conduct the zero check (a few minutes up to 10 minutes) is small.

Response to Comment 1-3

Staff has revised this provision to require the operator conduct wind monitoring using a minimum of one anemometer or wind sensor that meets the requirements set forth in PAR 1466 paragraph (d)(12).

Response to Comment 1-4
Staff has retained the MCERTS certification option in the Performance Requirements section and the language allowing MCERTS certification to be used to fulfill only the performance standards in lieu of demonstrating these standards. The Physical Requirements are unique to Rule 1466 and are not prescribed in *MCERTS: Performance Standard for Indicative Ambient Particulate Monitors*.

Response to Comment 1-5
To ensure that Rule 1466 approved monitors are highly accurate in measurement and robust in operation, staff has retained the 10,000 $\mu g/m^3$ maximum measurement for PM_{10} concentration range standard to exclude instruments that do not have an optics chamber for mass concentration measurement or cannot handle high particulate emissions (e.g. low-cost particulate sensors).

Response to Comment 1-6
Staff has corrected this language by removing "span."

Response to Comment 1-7
Thank you for your comment. Staff has included the suggested language in the proposed amended rule.

Response to Comment 1-8
Thank you for your comment. Staff has included the suggested language in the proposed amended rule.

Response to Comment 1-9
Thank you for your comment. Staff has included the suggested standard deviation equation and language in the proposed amended rule.

ATTACHMENT H

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

SUBJECT: **NOTICE OF EXEMPTION FROM THE CALIFORNIA ENVIRONMENTAL QUALITY ACT**

PROJECT TITLE: **PROPOSED AMENDED RULE 1466 – CONTROL OF PARTICULATE EMISSIONS FROM SOILS WITH TOXIC AIR CONTAMINANTS**

Pursuant to the California Environmental Quality Act (CEQA) Guidelines, the South Coast Air Quality Management District (South Coast AQMD), as Lead Agency, has prepared a Notice of Exemption pursuant to CEQA Guidelines Section 15062 – Notice of Exemption for the project identified above.

If the proposed project is approved, the Notice of Exemption will be electronically filed with the State Clearinghouse of the Governor's Office of Planning and Research to be posted on their CEQAnet Web Portal which, upon posting, may be accessed via the following weblink: https://ceqanet.opr.ca.gov/search/recent. In addition, the Notice of Exemption will be electronically posted on the South Coast AQMD's webpage which can be accessed via the following weblink: http://www.aqmd.gov/nav/about/public-notices/ceqa-notices/notices-of-exemption/noe---year-2021. The electronic filing and posting of the Notice of Exemption is being implemented in accordance with Governor Newsom's Executive Orders N-54-20 and N-80-20 issued on April 22,2020 and September 23, 2020, respectively, for the State of Emergency in California as a result of the threat of COVID-19.

NOTICE OF EXEMPTION FROM THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

To: Governor's Office of Planning and Research - State Clearinghouse
1400 Tenth St, Suite 222
Sacramento, CA 95814-5502

From: South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

Project Title: Proposed Amended Rule 1466 – Control of Particulate Emissions from Soils with Toxic Air Contaminants

Project Location: The proposed project is located within the South Coast Air Quality Management District's (South Coast AQMD) jurisdiction, which includes the four-county South Coast Air Basin (all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties), and the Riverside County portion of the Salton Sea Air Basin and the non-Palo Verde, Riverside County portion of the Mojave Desert Air Basin.

Description of Nature, Purpose, and Beneficiaries of Project: Rule 1466 is designed to minimize the amount of off-site fugitive dust emissions by establishing dust control measure that can be implemented during earth-moving activities at applicable sites with soils containing one or more toxic air contaminants and designated as cleanup sites by the U.S. Environmental Protection Agency (U.S. EPA), California Department of Toxics Substances Control (DTSC), State Water Resources Control Board (State Water Board), Regional Water Quality Control Board (Regional Water Board), or county, local or state regulatory agency. The following amendments to Rule 1466 are proposed so as to further minimize fugitive dust emissions to the surrounding community and clarify and streamline existing provisions: 1) expand the types of earth-moving activities to include dredging, earth-cutting and filling, and mechanized land clearing; 2) enhance dust control measures for vehicles, stockpiling, periods of inactivity, and sites adjacent to schools, joint use agreement properties, and athletic areas; 3) remove alternative provisions for dust control measures, ambient dust concentration limits, and other requirements; 4) clarify and revise monitoring, PM10 calculation methodologies, and dust control measures; 5) add additional requirements for notifications and recordkeeping; and 6) streamline provisions for existing fencing and signage.

Public Agency Approving Project:	**Agency Carrying Out Project:**
South Coast Air Quality Management District	South Coast Air Quality Management District

Exempt Status: CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption

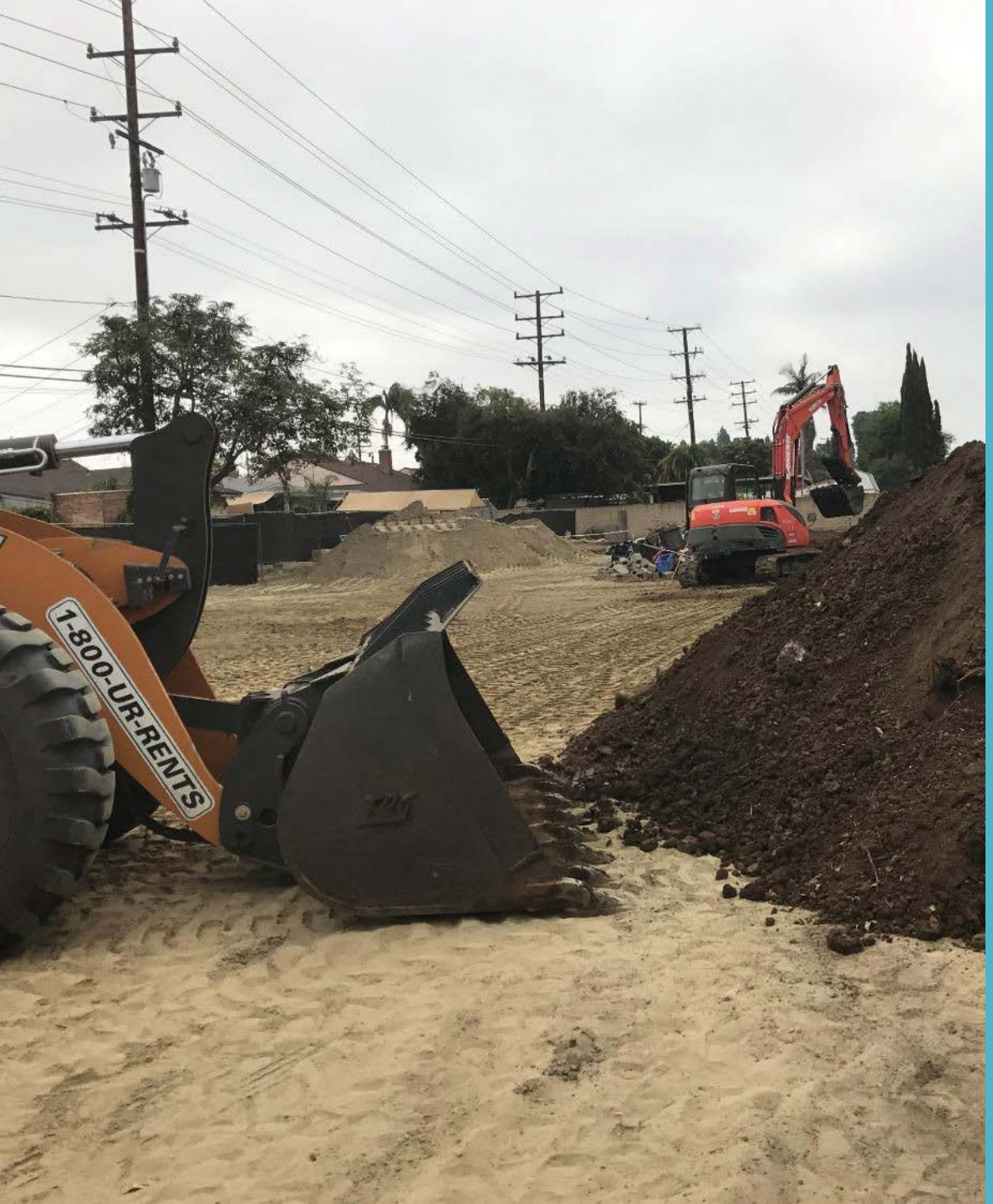
Reasons why project is exempt: South Coast AQMD, as Lead Agency, has reviewed the proposed project pursuant to: 1) CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and 2) CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA. Since the proposed project is designed to enhance ongoing efforts to minimize off-site fugitive dust emissions occurring during earth-moving activities of soil containing toxic air contaminants which can be achieved without involving construction activities, it can be seen with certainty that there is no possibility that the proposed project may have a significant adverse effect on the environment. Therefore, the proposed project is exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption.

Date When Project Will Be Considered for Approval (subject to change):
South Coast AQMD Governing Board Hearing: June 4, 2021

CEQA Contact Person:	**Phone Number:**	**Email:**	**Fax:**
Kendra Reif	(909) 396-3479	kreif@aqmd.gov	(909) 396-3982
Rule Contact Person:	**Phone Number:**	**Email:**	**Fax:**
Charlene Nguyen	(909) 396-2648	cnguyen@aqmd.gov	(909) 396-3982

Date Received for Filing: _____ **Signature:** *(Signed Upon Board Approval)*

Barbara Radlein
Program Supervisor, CEQA
Planning, Rule Development, and Area Sources



Proposed Amended Rule 1466

Control of Particulate Emissions from Soils with Toxic Air Contaminants

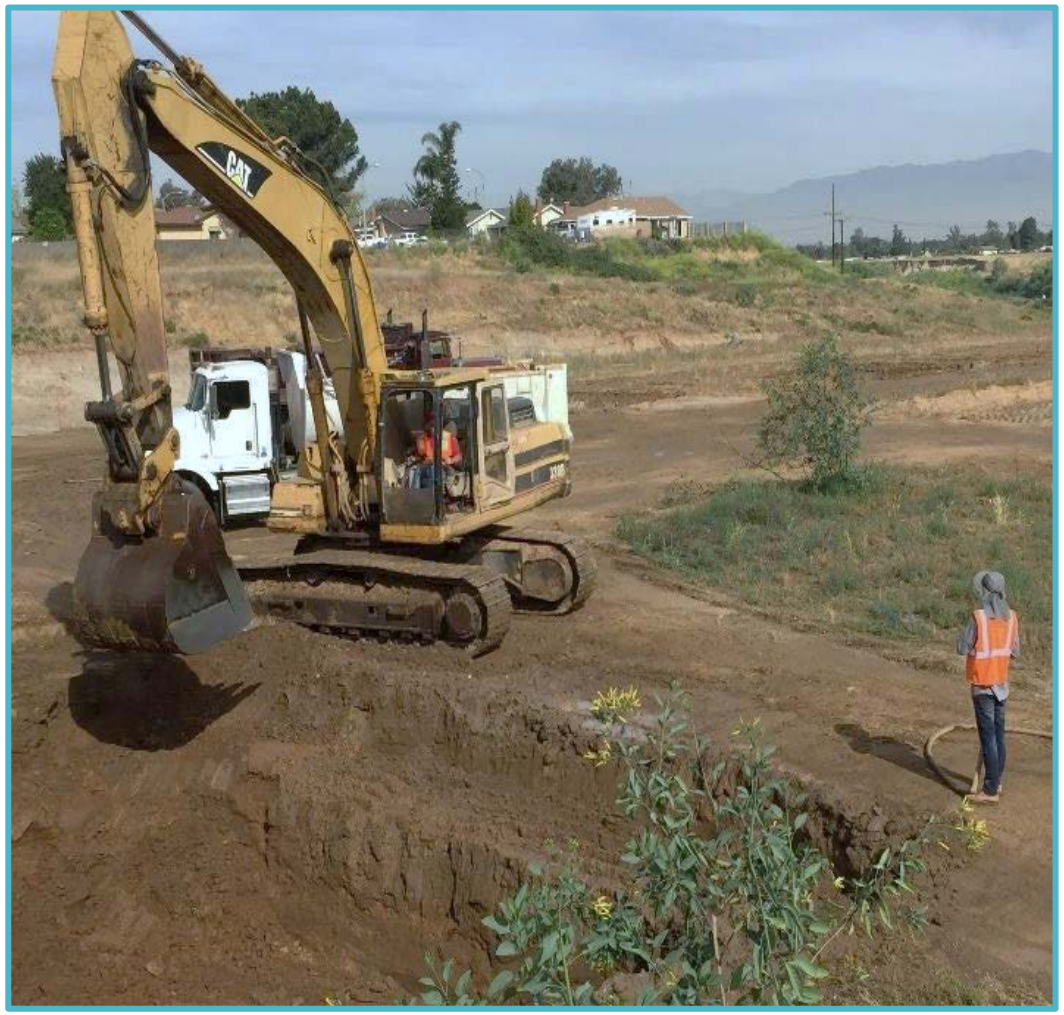
South Coast AQMD

Board Meeting

June 4, 2021

Background

- Rule 1466 was adopted July 7, 2017 and amended December 1, 2017
- Applies to earth-moving activities of soil containing toxic air contaminants at sites designated by a federal, state, county, or local regulatory agency
- Requires PM_{10} ambient monitoring during earth moving activities and implementation of measures to minimize fugitive dust emissions
- Proposed Amended Rule 1466 (PAR 1466) will:
  - Update monitoring requirements
  - Enhance dust control provisions
  - Clarify existing provisions and streamline rule implementation



Monitoring

- Updated monitor approval requirements
- Added additional monitoring requirements and QA/QC procedures
- Revised PM_{10} calculation methodology
- Revised wind monitoring requirements

Dust Control Measures

- Extended enhanced dust control measures to sites adjoining school-related properties
- Increased frequency of stabilization or covering of stockpiles and dust sources during periods of inactivity
- Clarified requirement for operators to inspect stockpiles daily, including weekends
- Added additional options for windscreen specifications to include more widely used standards

PAR 1466 Impacts to Sites

- PAR 1466 will potentially impact approximately 30 sites per year
- Estimated cost increase for each site is less than $5,100 per year
- Estimated cost increase for each site adjoining a school-related property is less than $9,300 per year

Summary and Recommended Actions

- PAR 1466 needed to clarify existing provisions and enhance key requirements
- Staff is not aware of any key issues
- Recommendation is to adopt the Resolution:
  - Determining that proposed amendments to Rule 1466 are exempt from California Environmental Quality Act; and
  - Amending Rule 1466