Appendix D
Regulation VIII – Fugitive Dust Rules

RULE 800 GENERAL REQUIREMENTS FOR CONTROL OF FINE PARTICULATE MATTER (PM-10)
(Adopted 10/10/94; Revised 11/25/96; Revised 11/08/2005; Revised 10/16/2012)

A. General Description

The purpose of this regulation is to reduce the amount of fine Particulate Matter (PM-10) entrained in the ambient air as a result of emissions generated from anthropogenic (man-made) Fugitive Dust (PM-10) sources generated from within Imperial County by requiring actions to prevent, reduce, or mitigate PM-10 emissions. The Rules contained within this Regulation have been developed pursuant to United States Environmental Protection Agency guidance for Serious PM10 Non Attainment Areas.

B. Applicability

The requirements of this rule shall apply to any Active Operation, and/or man-made or man-caused condition or practice capable of generating Fugitive Dust (PM-10) as specified in this Regulation except those determined exempt as defined in Part E of this Rule. The definitions, exemptions, requirements, administrative requirements recordkeeping requirements, and test methods set forth in this rule are applicable to all the rules under Regulation VIII (Fugitive Dust Requirements) of the Rules and Regulations of the Imperial County Air Pollution Control District.

C. Definitions

For the purpose of this Regulation, the following terms are defined:

C.1 ACTIVE OPERATION: Activities capable of generating Fugitive Dust (PM-10), including but not limited to, Earthmoving Activities, Construction activities, Unpaved Roads, Track-Out/Carry-Out, Bulk Material storage and transport, Unpaved Haul/Access Roads.

C.2 AGGREGATE MATERIALS: Consists of sand, Gravel, quarried stone and/or rock fragments that are typically used in Construction. Aggregates may be natural, artificial or recycled.

C.3 ANEMOMETRS: Are devices used to measure wind speed and direction in accordance with manufacturer's performance standards, maintenance and calibration criteria.

C.4 ANNUAL AVERAGE DAILY VEHICLE TRIPS: annual average 24-hour total of all

vehicles counted on a road.

C.5 APCD: The Imperial County Air Pollution Control District.

C.6 APCO: The Imperial County Air Pollution Control Officer.

C.7 AVERAGE VEHICLE TRIPS PER DAY: Means the average number of vehicles that cross a given point surface during a specific 24-hour period as determined by the most recent Institute of Transportation Engineers trip generation manual, tube counts, or observations.

C.8 BLM: The Bureau of Land Management.

C.9 BP: The United States Border Patrol.

C.10 BULK MATERIAL: Earth, rock, Silt, sediment, sand, Gravel, soil, fill, Aggregate, dirt, mud, debris, and other organic and/or inorganic material consisting of or containing Particulate Matter with five percent or greater Silt content. For the purpose of this Regulation, the Silt content level is assumed to be 5 percent or greater, unless the Person responsible for the Active Operation conducts the applicable laboratory tests and demonstrate that the Silt content is less than 5 percent. Active Operations seeking to determine if the Silt content is less than five percent are required to conduct the laboratory analysis in accordance with ASTM method C-136-a (Standard Test Method for Sieve analysis of Fine and Coarse Aggregates), or other equivalent test methods approved by EPA, ARB, and the APCD.

C.11 CANAL BANK: A rise of land on either side of an irrigation canal.

C.12 CHEMICAL STABILIZATION/SUPPRESSION: A means of Fugitive Dust (PM-10) control implemented to mitigate PM-10 emissions by applying petroleum resins, asphaltic emulsions, acrylics, adhesives, or any other materials approved for use by the California Air Resources Board (CARB), U.S. Environmental Protection Agency (U.S. EPA) and/or the APCO.

C.13 CONSTRUCTION: Any on-site mechanical activities preparatory to or related to the building, alteration, rehabilitation, or demolition of an improvement on real property, including, but not limited to, land clearing, excavation related to construction, land leveling, grading, cut and fill grading, and the erection or demolition of any structure. As used in Regulation VIII, a construction site may encompass several contiguous parcels, or may encompass only a portion of one parcel, depending on the relationship of the property boundaries to the actual construction activities.

C.14 DESIGNATED REPRESENTATIVE: The agent for a Person. The Designated Representative shall be responsible for and have the full authority to implement BACM on behalf of the Person.

C.15 DISTURBED SURFACE AREA: An area in which naturally occurring soils, or soils or other materials placed thereon, have been physically moved, uncovered, destabilized, or otherwise modified by grading, land leveling, scraping, cut and fill activities, excavation, bush and timber clearing, or grubbing, and soils on which vehicle traffic and/or equipment operation has occurred. An area is considered to be disturbed until the activity that caused the disturbance has been completed, and the disturbed area meets the stabilized surface conditions specified in this rule, or the area has been paved or otherwise covered by a permanent structure.

C.16 DPR: The California Department of Parks and Recreation.

C.17 EARTHMOVING ACTIVITIES: The use of any equipment for an activity that may generate Fugitive Dust emissions, including, but not limited to, cutting and filling, grading, leveling, excavation, trenching, loading or unloading of Bulk Materials, demolishing, drilling, adding to or removing bulk materials from open storage piles, weed abatement through disking, and back filling.

C.18 FUGITIVE DUST: The Particulate Matter entrained in the ambient air which is caused from man-made and natural activities such as, but not limited to, movement of soil, vehicles, equipment, blasting, and wind. This excludes Particulate Matter emitted directly in the exhaust of motor vehicles or other fuel combustion devices, from portable brazing, soldering, or welding equipment, pile drivers, and stack emissions from stationary sources.

C.19 GRAVEL: Gravel travelways shall have a three (3) inch minimum depth Stabilized Surface. The travelway shall have a relative compaction of not less than 95% as determined by Test Method No. California 216 of State of California, Business and Transportation Agency Department of Transportation, and conforming to the following grading:

Sieve Designation	¾" Maximum Percent Passing
1"	100
¾"	90-100
#4	35-60
#30	10-30
#200	2-9

Reference: California Department of Transportation Standard Specification Section 26/class II Aggregate Base

C.20 HAUL/ACCESS ROAD: Any on-site road used for commercial, industrial, institutional, and/or governmental traffic.

C.21 HAUL TRUCK: Any fully or partially open-bodied licensed motor vehicle used for transporting Bulk Material for industrial or commercial purposes.

C.22 IMPLEMENT OF HUSBANDRY: An unlicensed vehicle which is used exclusively in the conduct of Agricultural Operations. An Implement of Husbandry does not include a vehicle if its existing design is primarily for the transportation of persons or property on a highway, unless specifically designated as such by some other provision of the Vehicle Code of California.

C.23 NON-RESIDENTIAL AREA: Any unpaved vehicle and equipment traffic area operated at any commercial, manufacturing or government sites.

C.24 MODIFIED PAVED ROAD: Any Paved Road that is widened or improved so as to increase traffic capacity. This term does not include road maintenance, repair, chip seal, pavement or roadbed rehabilitation that does not affect roadway geometrics, or surface overlay work.

C.25 OFF-FIELD AGRICULTURAL SOURCE: Any Agricultural Source or activity at an Agricultural Source that falls into one or more of the following categories:

C.25.a Outdoor handling, storage and transport of Bulk Material;

C.25.b Paved Road;

C.25.c Unpaved Road; or

C.25.d Unpaved Traffic Area.

C.26 OFF-ROAD EVENT AND/OR COMPETITIONS: Means any of the following: any organized, sanctioned, or structured use, event or activity on public land in which two hundred and fifty (250) or more contestants compete and either or both of the following elements apply: (i) Participants register, enter, or complete an application for the event; (ii) A predetermined course or area is designated.

C.27 OFF- HIGHWAY VEHICLE(OHV): An off-highway vehicle is a motorized vehicle when operating off a highway, including a two-wheel, three-wheel or four-wheel vehicle, motorcycle, four-wheel drive vehicle, dune buggy, amphibious vehicle, ground effects or air cushion vehicle and any other means of land transportation deriving motive power from a source other than muscle or wind. "Highway" means the entire width between the boundary lines of every way publicly maintained by the federal government, a city, a town or a county if any part of the way is generally open to the use of the public for purposes of vehicular travel, excluding unpaved trails and paths specifically intended for recreational use.

C.28 ON-FIELD AGRICULTURAL SOURCE: Any Agricultural Source or activity at an Agricultural Source that is not an Off-Field Agricultural Source, including (but not limited to) the following:

C.28.a Activities conducted solely for the purpose of preparing land for the growing of crops or the raising of fowl or animals, such as brush or timber clearing, grubbing, scraping, ground excavation, land leveling, grading, turning under stalks, disking, or tilling;

C.28.b Drying or pre-cleaning of agricultural crop material on the field where it was harvested;

C.28.c Handling or storage of agricultural crop material that is baled, cubed, pelletized, or long-stemmed, on the field where it was harvested, and the handling of fowl or animal feed materials at sites where animals or fowl are raised;

C.28.d Disturbances of cultivated land as a result of fallowing, planting, fertilizing or harvesting.

C.29 OPEN AREA: Any of the following described in Subsection C.29.a through C.29.c of this rule. For the purpose of this rule, vacant portions of residential or commercial lots and contiguous parcels that are immediately adjacent to and owned and/or operated by the same individual or entity are considered one open area. An open area does not include any Unpaved Traffic Area as defined in this rule.

C.29.a An un-subdivided or undeveloped land whether or not it is adjoining a developed (or partially developed) residential, industrial, institutional,

governmental, or commercial area.

C.29.b A subdivided residential, industrial, institutional, governmental, or commercial lot, which contains no approved or permitted building or structures of a temporary or permanent nature.

C.29.c A partially developed residential, industrial, institutional, governmental, or commercial lot and contiguous lots under common ownership.

C.30 PARTICULATE MATTER: Any material, except uncombined water, which exists in a finely divided form as a liquid or solid at 60 degrees F and one atmosphere pressure.

C.31 PAVED ROADS: An improved street, highway, alley, public way, that is covered by concrete, asphaltic concrete, or asphalt.

C.32 PERSON: Any individual, public or private corporation, partnership, association, firm, trust, estate, municipality, or any other legal entity whatsoever which is recognized by law as the subject of rights and duties, who is responsible for an Active Operation.

C.33 PM-10: Particulate Matter with an aerodynamic diameter smaller than or equal to a nominal 10 microns as measured by the applicable State and Federal reference test methods.

C.34 RECREATIONAL OFF-HIGHWAY VEHICLE (OHV) USE AREA: The entire area of a parcel of land, except for camping and approved buffer areas, that is managed for off-highway vehicle use through the development or designation of off-highway vehicle trails or areas.

C.35 RURAL: Areas not classified as urban constitute “rural.”

C.36 SILT: Any Aggregate Material with a particle size less than 75 micrometers in diameter as measured by a No. 200 sieve as defined in ASTM D-2487 and as tested by ASTM-C-136 or other equivalent test methods approved by EPA, ARB, and the APCD.

C.37 STABILIZED SURFACE: Any disturbed surface area or open bulk storage pile that is resistant to wind blown Fugitive Dust emissions. A surface is considered to be stabilized if it meets at least one of the following conditions specified in this Section and as determined by the test methods specified in Appendix B, Section A, B and D-G tests of this rule:

C.37.a A visible crust; or

C.37.b A threshold friction velocity (TFV) for disturbed surface areas corrected for non-erodible elements of 100 centimeters per second or greater; or

C.37.c A flat vegetative cover of at least 50 percent that is attached or rooted vegetation; or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind; or

C.37.d A standing vegetative cover of at least 30 percent that is attached or rooted vegetation with a predominant vertical orientation; or

C.37.e A standing vegetative cover that is attached or rooted vegetative with a predominant vertical orientation that is at least 10 percent and where the TFV is at least 43 centimeters per second when corrected for non-erodible elements; or

C.37.f A surface that is greater than or equal to 10 percent of non-erodible elements such as rocks, stones, or hard-packed clumps of soil.

C.38 STABILIZED UNPAVED ROAD: Any Unpaved Road or unpaved vehicle/equipment traffic area surface which meets the definition of Stabilized Surface as determined by the test method in Appendix B, Section C of this rule, and where VDE is limited to 20% opacity.

C.39 TACTICAL TRAINING: Training conducted by the U.S. Department of Defense, the U.S. military services, or its allies for combat, combat support, combat service support, tactical or relief operations. Examples include but are not limited to munitions training.

C.40 TEMPORARY UNPAVED ROAD: Any Unpaved Road surface which is created to support a temporary or periodic activity and the use of such road surface is limited to vehicle access for a period of not more than six months during any consecutive three-year period.

C.41 THRESHOLD FRICTION VELOCITY (TFV): The corrected velocity necessary to initiate soil erosion as determined by the test method specified in Appendix B, Section D, of this rule. The lower TFV, the greater the propensity for fine particles to be lifted at relatively low wind speeds.

C.42 TRACK-OUT/CARRY-OUT: Any and all Bulk Materials that adhere to and agglomerate on the exterior surfaces of motor vehicles and/or equipment

(including tires) that may then fall onto the pavement.

C.43 TRACK-OUT PREVENTION DEVICE: A Gravel pad, grizzly, wheel wash system, or a paved area, located at the point of intersection of an unpaved area and a Paved Road that prevents or controls Track-Out.

C.44 UNPAVED ROADS: Streets, alley ways, or roadways that are not covered by one of the following: concrete, asphaltic concrete, asphalt, or other similar materials specified by the U.S.EPA, CARB and/or the APCO.

C.45 UNPAVED TRAFFIC AREA: Any nonresidential area that is:

C.45.a Not covered by asphalt, recycled asphalt, asphaltic concrete, concrete, or concrete pavement, and

C.45.b Used for fueling and servicing; shipping, receiving and transfer; or parking or storing equipment, haul trucks, vehicles, and any conveyances.

C.46 URBAN AREA: An area within an incorporated city boundary or within unincorporated areas completely surrounded by an incorporated city.

C.47 VDE: Visible dust emissions. Dust emissions that are visible to an observer.

C.48 VMT: Vehicle miles traveled.

C.49 WIND GUST: Is the maximum instantaneous wind speed as measured by an anemometer.

D. Compliance Schedule

D.1 Existing sources subject to this Regulation shall comply with its requirements no later than 90 days after its adoption date.

D.2 New sources subject to this Regulation shall comply with its requirements prior to initiation of activity.

D.3 BP and any person (including BLM and DPR) who owns or operates a Recreational OHV Use Area on public lands shall each comply with the following compliance schedule:

D.3.a Submit a draft dust control plan addressing all applicable portions of this Regulation including section F.5 and F.7 within three (3) months of the adoption date of this rule, to which the APCO shall respond within

60 days;

D.3.b Submit a final dust control plan addressing all APCO comments within two (2) months after receiving APCO's comments, which the APCO shall transmit to CARB and U.S. EPA for 45-day review and comment;

D.3.c If comments received from CARB or EPA, submit to them and APCO a revised final dust control plan addressing all comments within two (2) months after receiving comments.

D.3.d Implement all final dust control plan elements within six (6) months of submittal; and

D.3.e Submit an updated dust control plan every two calendar years by the procedures described in D.3.a to D.3.d. The updated plans shall be transmitted to the District no later than 90 days after the end of the calendar year and, in addition to information required of the initial plan, shall include a summary of actions taken to prevent or mitigate PM10 emissions during the previous two years.

E. Exemptions

The following activities are exempt from provisions of this Regulation:

E.1 Actions required by the Federal or State Endangered Species Act or any order issued by a court or governmental agency.

E.2 Off-Field Agricultural Sources necessary to minimize or respond to adverse effects on agricultural crops caused during freezing temperatures as declared by the National Weather Service.

E.3 Emergency maintenance of flood control channels and water spreading basins.

E.4 Any emergency operation activities performed to ensure public health and safety. Emergency activities lasting more than 30 days shall be subject to this Regulation, except where compliance would limit the effectiveness of the emergency activity performed to ensure public health and safety.

E.5 Blasting operations permitted by the California Division of Industrial Safety. Other activities performed in conjunction with blasting are not exempt from complying with the provisions of this rule.

E.6 The following military training activities conducted by the Department of Defense: (1) military Tactical Training, (2) maintenance, repair, and removal of

targets and munitions associated with military Tactical Training, (3) open areas on active military ranges, including but not limited to designated impact areas, landing zones, and bivouac areas. However, unpaved roads, staging areas, parking lots, and other activities performed in conjunction with military Tactical Training are not exempt from complying with the provisions of this Regulation, as applicable.

F. General Requirements

F.1 Materials used for Chemical Stabilization of soils, including petroleum resins, asphaltic emulsions, acrylics, and adhesives shall not violate State Water Quality Control Board standards for use as a soil stabilizer. Materials accepted by the California Air Resources Board (ARB) and the United States Environmental Protection Agency (EPA), and which meet State water quality standards, shall be considered acceptable to the ICAPCD.

F.2 Any material prohibited for use as dust Suppressant by EPA, the ARB, or other applicable law, rule, or regulation is also prohibited under Regulation VIII.

F.3 Use of hygroscopic materials may be prohibited by the APCD in areas lacking sufficient atmospheric moisture of soil for such materials to effectively reduce Fugitive Dust emissions. The atmospheric moisture of soil is considered to be sufficient if it meets the application specifications of the hygroscopic product manufacturer. Use of such materials may be approved in conjunction with sufficient wetting of the controlled area.

F.4 Any use of dust Suppressants or gravel pads, and paving materials such as asphalt or concrete for paving, shall comply with other applicable District Rules.

F.5 Recreational OHV Use Area on Public lands Dust Control Plan Requirements

The BLM, DPR, or any other owner or operator of a Recreational OHV Use Area on public lands shall prepare a dust control plan to minimize PM-10 emissions. The dust control plan shall include at a minimum the following:

F.5.a A stipulation that all new authorizations for point and area stationary emission sources obtain all necessary permits and satisfy all applicable SIP provisions, including Regulation VIII specific control measures;

F.5.b A summary of:

F.5.b.1 The total miles of roads in the Recreational OHV Use Area on public lands that are paved, paved with unpaved shoulders, and unpaved roads with 50 or more average

vehicle trips per day, including length and level of usage of each such road; the priority for control of road segments based on annual and episodic (e.g. event) usage; the plans for control of PM-10 emissions from these roads;

F.5.b.2 The location and extent (acreage and where feasible, estimate of number of vehicles) of open areas disturbed by legal and illegal Recreational Use, including maps such as those required by California Public Resources Code (PRC) section 5090.34; the priority for control of these open areas based on annual and episodic (e.g. event) usage; the plans for control of PM-10 emissions from these areas;

F.5.c Unpaved Roads and Unpaved Vehicle/Equipment Traffic Area. The dust control plan shall be implemented on all days that traffic exceeds, or is expected to exceed, the number of average daily vehicle trips per day as specified in sections F.5.c.1 and F.5.c.2 of this rule, except where measures are demonstrated by owner/operator to be prohibited by federal or state laws, regulations, or approved plans concerning wilderness preservation and species management and recovery.

F.5.c.1 On each day of an Off-Road Event and/or Competition that 50 average vehicle daily trips per day will occur on an unpaved road segment, the owner/operator shall limit VDE to 20% opacity and comply with the requirements of a stabilized unpaved road by application and/or re-application/maintenance of at least one of the following control measures:

F.5.c.1.1 Watering;
F.5.c.1.2 Uniform layer of washed gravel;
F.5.c.1.3 Paving;
F.5.c.1.4 Restrict access;
F.5.c.1.5 Restrict speed limit at or below 15 mph;
F.5.c.1.6 Chemical/organic dust suppressants;
F.5.c.1.7 Roadmix;
F.5.c.1.8 Any other method(s) that can be demonstrated that effectively limits VDE to 20% opacity and meets the conditions of a stabilized unpaved road.

F.5.c.2 On each day of an Off-Road Event and/or Competition that 50 average vehicle daily trips per day will occur on an unpaved surface area dedicated to any vehicle parking and

Unpaved Traffic Area, the owner/operator shall limit VDE to 20% opacity and comply with the requirements of a stabilized unpaved road by application and/or re-application/maintenance of at least one of the following control measures:

F.5.c.2.1 Watering;
F.5.c.2.2 Uniform layer of washed gravel;
F.5.c.2.3 Paving;
F.5.c.2.4 Restricted access below the limit;
F.5.c.2.5 Restrict speed limit at or below 15 mph;
F.5.c.2.6 Chemical/organic dust suppressants;
F.5.c.2.7 Roadmix;
F.5.c.2.8 Any other method(s) that can be demonstrated that effectively limits VDE to 20% opacity and meets the conditions of a stabilized unpaved road.

F.5.d The dust control plan must describe all PM-10 control measures that will be implemented, such as restricted use areas, stabilization of Unpaved Traffic Areas and current Recreation Area Management Plan (RAMP) measures, all applicable soil and habitat conservation requirements, and all monitoring and corrective actions taken to reduce PM10 emissions during Off-Road Events and/or Competitions on public land and include all those measures that are feasible and not prohibited by the laws, regulations and plans described in F.5.c;

F.5.e Use BLM-standard road design and drainage specifications when maintaining existing roads or authorizing road maintenance and new road construction;

F.5.f Include public educational information on reducing PM-10 emissions with agency (e.g., BLM and DPR) open area literature (e.g. identification of restricted areas and/or applicable speed limits) and on related information signs in heavily used areas; and

F.5.g The owner or operator of a recreational OHV use area on public lands shall not permit Off-Road Events and/or Competitions from June 15th to August 15th, unless a specific dust control plan is submitted to and approved by the ICAPCD. The dust control plan shall include specific fugitive dust control measures and demonstrate that all control measures, including the requirements of this rule, can be implemented and enforced.

F.6 Border Patrol (BP) Requirements

The BP shall prepare a dust control plan designed to minimize PM10 emissions from sources under the control of the BP. The dust control plan shall include the following fugitive dust control measures:

F.6.a A stipulation that all new authorizations for point and area stationary emission sources obtain all necessary permits and satisfy all applicable SIP provisions, including Regulation VIII specific control measures;

F.6.b Implement alternatives to tire-dragging that result in fewer PM10 emissions, unless BP demonstrates such alternatives to be inconsistent with the monitoring of immigration across the U.S.-Mexico border;

F.7 New Recreational OHV Use Area(s) on Public Land Requirements

Before a public agency (including BLM and DPR) designates a property as "New Recreational OHV Use Area" (hereafter referred to as "New Recreational OHV Use Area") for OHV recreation, the agency shall meet and confer with ICAPCD. A "New Recreational OHV Use Area" shall include areas physically undisturbed by OHV usage as of January 1, 2013. After development and approval of an agency's first Dust Control Plan under Section D.3 of this rule, "New Recreational OHV Use Area also includes areas not described in the previous public agency's dust control plan."

F.7.a ICAPCD shall review the public agency's draft General Plan, Specific Plan, or RAMP and/or related documents for consistency and compliance with the rules and requirements applicable to and/or implementing Imperial County's plan for attainment and/or maintenance of the 24-hour federal PM-10 standard. During the applicable public comment period, ICAPCD may provide comments on the applicable plan to the public agency related to consistency and compliance with such rules and requirements, and where applicable, describe additional measures necessary for consistency and compliance with such rules and requirements.

F.7.b For any New Recreational OHV Use Area(s) with PM-10 emissions of 70 tons per year or above, the public agency must demonstrate in a federal- and/or state-required environmental assessment that these emissions would not:

F.7.b.1 Cause or contribute to any new violations of any PM-10 NAAQS in the area.

F.7.b.2 Interfere with provisions in the applicable PM-10 SIP for maintenance of the PM-10 NAAQS.

F.7.b.3 Increase the frequency or severity of any existing violation of PM-10 NAAQS; or

F.7.b.4 Delay timely attainment of the PM-10 NAAQS or any required interim emission reductions or other milestones in any area including, where applicable, emission levels specified in the applicable SIP for purposes of: (i) a demonstration of reasonable further progress; (ii) a demonstration of attainment; or (iii) a maintenance plan.

F.7.c The public agency shall not approve the applicable General Plan, Specific Plan, or RAMP unless and until it has incorporated ICAPCD's comments and recommended mitigation measures or explained why a comment or recommended mitigation measure does not apply or is infeasible. If the public agency does not accept a mitigation measure or comment, the public agency shall consult with ICAPCD to identify an alternative measure or way to address ICAPCD's concern. In any event, all New Recreational OHV Use Areas shall comply with Section F.5 above.

G. Administrative Requirements

G.1 Test Methods

G.1.a Determination of VDE Opacity

Opacity observations to determine compliance with VDE standards shall be conducted in accordance with the test procedures for "Visual Determination of Opacity" as described in Appendix A of this rule. Opacity observations for sources other than unpaved traffic areas (e.g., roads, parking areas) shall be conducted per Section B of Appendix A and shall require 12 readings at 15-second intervals.

G.1.b Determination of Stabilized Surface

Observations to determine compliance with the conditions specified for a stabilized surface, in any inactive disturbed surface area, whether at a work site that is under construction, at a work site that is temporarily or permanently inactive, or on an open area and vacant lot, shall be conducted in accordance with the test methods described in Appendix B of this rule. If a disturbed surface area passes any of the applicable Appendix B-Section A, B and D-G tests, then the surface shall be considered stabilized.

G.1.c Determination of Soil Moisture Content

Soil moisture content shall be determined by using ASTM Method D2216-98 (Standard Test Method for Laboratory Determination of Water [Moisture] Content of Soil and Rock by Mass), or other equivalent test methods approved by the EPA, ARB, and the APCO.

G.1.d Determination of Silt Content for Bulk Materials

Silt content of a Bulk Material shall be determined by ASTM Method C136a (Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates), or other equivalent test methods approved by EPA, ARB, and the APCD.

G.1.e Determination of Silt Content for Unpaved Roads and Unpaved Vehicle/Equipment Traffic Areas

Silt Content for Unpaved Roads and Unpaved Traffic Areas shall be determined by using Section C of Appendix B of this Rule or other equivalent test methods approved by EPA, ARB, and the APCO.

G.1.f Determination of Threshold Friction Velocity (TFV)

TFV shall be determined by using Section D of Appendix B of this Rule or other equivalent test methods approved by EPA, ARB, and the APCO.

H. Record of Control Implementation

Any Person subject to the requirements of this rule shall compile and retain records that provide evidence of control measure application and compliance with this rule (i.e., receipts and/or purchase records). Such Person shall describe, in the records, the type of treatment or control measure, extent of coverage, and date applied. For control measures which require multiple daily applications, recording the frequency of application will fulfill

the recordkeeping requirements of this rule (i.e., water being applied three times a day and the date) Records shall be maintained and be readily accessible for two years after the date of each entry and shall be provided to the APCD upon request.

I. Violations

Failure to comply with any provisions of this rule shall constitute a violation of Regulation VIII. Failure to comply with the provisions of an APCO approved dust control plan shall also constitute a violation of this Regulation. Regardless of whether an APCO approved dust control plan is being implemented or not, or whether a Person responsible for an Active Operation(s) is complying with an approved dust control plan, the Person is still subject to the requirements of Regulation VIII at all times.

APPENDIX A
Visual Determination of Opacity

SECTION A Test Method For Unpaved Roads and Unpaved Traffic Areas
SECTION B Test Method For Time-Averaged Regulations

SECTION A TEST METHOD FOR UNPAVED ROADS AND UNPAVED TRAFFIC AREAS

A Opacity Test Method. The purpose of this test method is to estimate the percent opacity of Fugitive Dust plumes caused by vehicle movement on Unpaved Roads and Unpaved Traffic Areas. This method can only be conducted by an individual who has current certification as a qualified observer.

A.1 Step 1: Stand at least 16.5 feet from the fugitive dust source in order to provide a clear view of the emissions with the sun oriented in the 140° sector to the back. Following the above requirements, make opacity observations so that the line of vision is approximately perpendicular to the dust plume and wind direction. If multiple plumes are involved, do not include more than one plume in the line of sight at one time.

A.2 Step 2: Record the Fugitive Dust source location, source type, method of control used, if any, observer's name, certification data and affiliation, and a sketch of the observer's position relative to the Fugitive Dust source. Also, record the time, estimated distance to the Fugitive Dust source location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), observer's position to the Fugitive Dust source, and color of the plume and type of background on the visible emission observation form both when opacity readings are initiated and completed.

A.3 Step 3: Make opacity observations, to the extent possible, using a contrasting background that is perpendicular to the line of vision. Make opacity observations approximately 1 meter above the surface from which the plume is generated. Note that the observation is to be made at only one visual point upon generation of a plume, as opposed to visually tracking the entire length of a dust plume as it is created along a surface. Make two observations per vehicle, beginning with the first reading at zero seconds and the second reading at five seconds. The zero-second observation should begin immediately after a plume has been created above the surface involved. Do not look continuously at the plume but, instead, observe the plume briefly at zero seconds and then again at five seconds.

A.4 Step 4: Record the opacity observations to the nearest 5% on an observational record sheet. Each momentary observation recorded represents the average opacity of emissions for a 5-second period. While it is not required by the test method, EPA recommends that the observer estimate the size of the vehicles which generate dust plumes for which readings are taken (e.g. mid-size passenger car or heavy-duty truck.) and take the approximate speeds the vehicles are traveling when the readings are being taken.

A.5 Step 5: Repeat Step 3 (Section A.3. of this appendix) and Step 4 (Section A.4. of this appendix) until you have recorded a total of 12 consecutive opacity readings. This will occur once six vehicles have driven on the source in your line of observation for which you are able to take proper readings. The 12 consecutive readings must be taken within the same period of observation but must not exceed 1 hour. Observations immediately preceding and following interrupted observations can be considered consecutive.

A.6 Step 6: Average the 12 opacity readings together. If the average opacity reading equals 20% or lower, the source is in compliance with the opacity standard described in the applicable rule.

SECTION B TEST METHOD FOR VISUAL DETERMINATION OF OPACITY OF EMISSIONS FROM SOURCES FOR TIME-AVERAGED REGULATIONS

B Applicability. This method is applicable for the determination of the opacity of emissions from sources of visible emissions for time-averaged regulations. A time-averaged regulation is any regulation that requires averaging visible emission data to determine the opacity of visible emissions over a specific time period.

B.1 Principle. The opacity of emissions from sources of visible emissions is determined visually by a qualified observer who has received certification.

B.2 Procedures. A qualified observer who has been certified shall use the following procedures for visually determining the opacity of emissions.

B.2.a Position. Stand at a position at least 5 meters from the Fugitive Dust source n order to provide a clear view of the emissions with the sun oriented in the 140° sector to the back. Consistent as much as possible with maintaining the above requirements, make opacity observations from a position such that the line of sight is approximately perpendicular to the plume and wind direction. The observer may follow the Fugitive Dust plume generated by mobile earthmoving equipment, as long as the sun remains oriented in the 140° sector to the back. As much as possible, if multiple plumes are involved, do not include more than one plume in the line of sight at one time.

B.2.b Field Records. Record the name of the site, Fugitive Dust source type (i.e., pile, material handling (i.e., transfer, loading, sorting)), method of control used, if any, observer's name, certification data and affiliation, and a sketch of the observer's position relative to the Fugitive Dust source. Also, record the time, estimated distance to the Fugitive Dust source location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds,) observer's position relative to the fugitive dust source, and color of the plume and type of the background on the visible emission observation form when opacity readings are initiated and completed.

B.2.c Observations. Make opacity observations, to the extent possible, using a contrasting background that is perpendicular to the line of sight. For storage piles, make opacity observations approximately 1 meter above the surface from which the plume is generated. For extraction operations and the loading of haul trucks in open-pit mines, make opacity observations approximately one meter above the rim of the pit. The initial observation should begin immediately after a plume has been created above the surface involved. Do not look continuously at the plume, but instead observe the plume momentarily at 15-second intervals. For Fugitive Dust from Earthmoving equipment, make opacity observations approximately 1 meter above the mechanical equipment generating the plume.

B.2.d Recording Observations. Record the opacity observations to the nearest 5% every 15 seconds on an observational record sheet. Each momentary observation recorded represents the average opacity of emissions for a 15-second period. If a multiple plume exists at the time of an observation, do not record an opacity reading. Mark an "x" for that reading. If the equipment generating the plume travels outside of the field of observation, resulting in the inability to maintain the orientation of the sun within the 140° sector or if the equipment ceases operating, mark an "x" for the 15 – second interval reading. Readings identified as "x" shall be considered interrupted readings.

B.2.e Data Reduction For Time-Averaged Regulations. For each set of 12 or 24 consecutive readings, calculate the appropriate average opacity. Sets must consist of consecutive observations, however, readings immediately preceding and following interrupted readings shall be deemed consecutive and in no case shall two sets overlap, resulting in multiple violations.

APPENDIX B
Determination of Stabilization

SECTION A Test Methods for Determining Stabilization
SECTION B Visible Crust Determination
SECTION C Determination of Silt Content for Unpaved Roads and Unpaved Vehicle/Equipment Traffic Areas
SECTION D Determination of Threshold Friction Velocity
SECTION E Determination of Flat Vegetative Cover
SECTION F Determination of Standing Vegetative Cover
SECTION G Rock Test Method

SECTION A TEST METHODS FOR DETERMINING STABILIZATION

The test methods described in Section B through Section G of this appendix shall be used to determine whether an area has a Stabilized Surface. Should a disturbed area contain more than one type of disturbance, soil, vegetation, or other characteristics, which are visibly distinguishable, test each representative surface separately for stability, in an area that represents a random portion of the overall disturbed conditions of the site, according to the appropriate test methods in Section B through Section G of this appendix, and include or eliminate it from the total size assessment of disturbed surface area(s) depending upon test method results.

SECTION B VISIBLE CRUST DETERMINATION

B.1 Where a visible crust exists, drop a steel ball with a diameter of 15.9 millimeters (0.625 inches) and a mass ranging from 16-17 grams from a distance of 30 centimeters (one foot) directly above (at a 90° angle perpendicular to) the soil surface. If blowsand is present, clear the blowsand from the surfaces on which the visible crust test method is conducted. Blowsand is defined as thin deposits of loose uncombined grains covering less than 50% of a site which have not originated from the representative site surface being tested. If material covers a visible crust, which is not blowsand, apply the test method in Section D of this appendix to the loose material to determine whether the surface is stabilized.

B.2 A sufficient crust is defined under the following conditions: once a ball has been dropped according to section B.1 of this appendix, the ball does not sink into the surface, so that it is partially or fully surrounded by loose grains and, upon removing the ball, the surface upon which it fell has not been pulverized, so that loose grains are visible.

B.3 Drop the ball three times within a survey area that measures 1 foot by 1 foot and that represents a random portion of the overall disturbed conditions of the site. The survey area shall be considered to have passed the Visible Crust Determination Test if the results of at least two out of the three times that the ball was dropped, met the criteria in section

B.2 of this appendix. Select at least two other survey areas that represent a random portion of the overall disturbed conditions of the site, and repeat this procedure. If the results meet the criteria of section B.2 of this appendix for all of the survey areas tested, then the site shall be considered to have passed the Visible Crust Determination Test and shall be considered sufficiently crusted.

B.4 At any given site, the existence of a sufficient crust covering one portion of the site may not represent the existence or protectiveness of a crust on another portion of the site. Repeat the visible crust test as often as necessary on each random portion of the overall conditions of the site for an accurate assessment.

SECTION C DETERMINATION OF SILT CONTENT FOR UNPAVED ROADS AND UNPAVED VEHICLE/EQUIPMENT TRAFFIC AREAS

The purpose of this test method is to estimate the silt content of the trafficked parts of Unpaved Roads and Unpaved vehicle/equipment Traffic Areas. The higher the Silt content, the more fine dust particles that are released when vehicles travel on Unpaved Roads and Unpaved vehicle/equipment Traffic Areas.

C.1 Equipment:

- C.1.a A set of sieves with the following openings: 4 millimeters (mm), 2mm, 1mm, 0.5mm and 0.25 mm, a lid, and collector pan.
- C.1.b A small whisk broom or paintbrush with stiff bristles and dustpan 1 ft. in width (the broom/brush should preferably have one, thin row of bristles no longer than 1.5 inches in length.)
- C.1.c A spatula without holes.
- C.1.d A small scale with half-ounce increments (e.g., postal/package scale.)
- C.1.e A shallow, lightweight container (e.g., plastic storage container.)
- C.1.f A sturdy cardboard box or other rigid object with a level surface.
- C.1.g A basic calculator.
- C.1.h Cloth gloves (optional for handling metal sieves on hot, sunny days.)
- C.1.i Sealable plastic bags (if sending samples to a laboratory.)
- C.1.j A pencil/pen and paper.

C.2 Step 1: Look for a routinely traveled surface, as evidenced by tire tracks. Only collect samples from surfaces that are not damp due to precipitation or dew. This statement is not meant to be a standard in itself for dampness where watering is being used as a control measure. It is only intended to ensure that surface testing is done in a representative manner. Use caution when taking samples to ensure personal safety with respect to passing vehicles. Gently press the edge of a dustpan (1 foot in width) into the surface four times to mark an area that is 1 square foot. Collect a sample of loose surface material into the dustpan, minimizing escape of dust particles. Use a spatula to lift heavier elements such as gravel. Only collect dirt/Gravel to an approximate depth of 3/8

inch or 1 cm in the 1 square foot area. If you reach a hard, underlying subsurface that is <3/8 inch in depth, do not continue collecting the sample by digging into the hard surface. In other words, you are only collecting a surface sample of loose material down to 1 cm. In order to confirm that samples are collected to a 1cm depth, a wooden dowel or other similar narrow object at least one-foot in length can be laid horizontally across the survey area while a metric ruler is held perpendicular to the dowel. (Optional: At this point, you can choose to place the sample collected into a plastic bag or container and take it to an independent laboratory for silt content analysis. A reference to the procedure the laboratory is required to follow is at the end of this section.)

C.3 Step 2: Place a scale on a level surface. Place a lightweight container on the scale. Zero the scale with the weight of the empty container on it. Transfer the entire sample collected in the dustpan to the container, minimizing escape of dust particles. Weigh the sample and record its weight.

C.4 Step 3: Stack a set of sieves in order according to the size openings specified above, beginning with the largest size opening (4mm) at the top. Place a collector pan underneath the bottom (0.25mm) sieve.

C.5 Step 4: Carefully pour the sample into the sieve stack, minimizing escape of dust particles by slowly brushing material into the stack with a whiskbroom or brush. On windy days, use the trunk or door of a vehicle as a wind barrier. Cover the stack with a lid. Lift up the sieve stack and shake it vigorously up and down and sideways for at least 1 minute.

C.6 Step 5: Remove the lid from the stack and disassemble each sieve separately, beginning with the top sieve. As you remove each sieve, examine it to make sure that all of the material has been sifted to the finest sieve through which it can pass (e.g., material in each sieve (besides the top sieve that captures a range of larger elements) should look the same size.) If this is not the case, re-stack the sieves and collector pan, cover the stack with the lid, and shake it again for at least 1 minute. You only need to reassemble the sieve(s) that contain material, which require further sifting.

C.7 Step 6: After disassembling the sieves and collector pan, slowly sweep the material from the collector pan into the empty container originally used to collect and weigh the entire sample. Take care not to minimize escape of dust particles. You do not need to do anything with material captured in the sieves – only the collector pan. Weigh the container with the materials from the collector pan and record its weight.

C.8 Step 7: If the source is an unpaved road, multiply the resulting weight by 0.38. If the source is an Unpaved vehicle/equipment Traffic Area, multiply the resulting weight by 0.55. The resulting number is the estimated silt loading. Then, divide the total weight of the sample you recorded earlier in Step 2 (Section C.4) and multiply by 100 to estimate the percent Silt content.

C.9 Step 8: Select another two routinely traveled portions of the Unpaved Road or Unpaved vehicle/equipment Traffic Area and repeat this test method. Once you have calculated the silt loading and percent silt content of the 3 samples collected, average your results together.

C.10 Step 9: Examine Results. If the average silt loading is less than 0.33 oz/ft^2, the surface is STABLE. If the average silt loading is greater than or equal to 0.33 oz/ft^2, then proceed to examine the average percent Silt content. If the source is an Unpaved Road and the average percent Silt content is 6% or less, the surface is STABLE. If the source is an unpaved parking lot and the average percent Silt content is 8% or less, the surface is STABLE. If your field test results are within 2% of the standard (for example, 4%-8% Silt content on an Unpaved Road) it is recommended that you collect 3 additional samples from the source according to Step 1 (section C.2) and take them to an independent laboratory for Silt content analysis.

C.11 Independent Laboratory Analysis: You may choose to collect samples from the source, according to Step 1 (section C.2) and send them to an independent laboratory for Silt content analysis rather than conduct the sieve field procedure. If so, the test method the laboratory is required to use is: "Procedures For Laboratory Analysis for Surface/Bulk Dust Loading Samples," (Fifth Edition, Volume 1, Appendix C.2.3 "Silt Analysis," 1995,) AP-42, Office of Air Quality Planning & Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina.

SECTION D DETERMINATION OF THRESHOLD FRICTION VELOCITY (TFV)

For disturbed surface areas that are not crusted or vegetated, determine threshold friction velocity (TFV) according to the following sieving field procedure (based on a 1952 laboratory procedure published by W.S. Chepil).

D.1 Obtain and stack a set of sieves with the following openings: 4 millimeters (mm), 2 mm, 1 mm, 0.5 mm, and 0.25 mm or obtain and stack a set of standard/commonly available sieves. Place the sieves in order according to size openings, beginning with the largest size opening at the top. Place a collector pan underneath the bottom (0.25 mm) sieve. Collect a sample of loose surface material from an area at least 30 cm by 30 cm in size to a depth of approximately 1 cm using a brush and dustpan or other similar device. Only collect soil samples from dry surfaces (i.e. when the surface is not damp to the touch). Remove any rocks larger than 1 cm in diameter from the sample. Pour the sample into the top sieve (4 mm opening) and cover the sieve/collector pan unit with a lid. Minimize escape of particles into the air when transferring surface soil into the sieve/collector pan unit. Move the covered sieve/collector pan unit by hand using a broad, circular arm motion in the horizontal plane. Complete twenty circular arm movements, ten clockwise and ten counterclockwise, at a speed just necessary to achieve some relative horizontal motion between the sieves and the particles. Remove the lid from the sieve/collector pan unit and disassemble each sieve separately beginning with the largest sieve. As each

sieve is removed, examine it for loose particles. If loose particles have not been sifted to the finest sieve through which they can pass, reassemble and cover the sieve/collector pan unit and gently rotate it an additional ten times. After disassembling the sieve/collector pan unit, slightly tilt and gently tap each sieve and the collector pan so that material aligns along one side. In doing so, minimize escape of particles into the air. Line up the sieves and collector pan in a row and visibly inspect the relative quantities of catch in order to determine which sieve (or whether the collector pan) contains the greatest volume of material. If a visual determination of relative volumes of catch among sieves is difficult, use a graduated cylinder to measure the volume. Estimate TFV for the sieve catch with the greatest volume using Table 1 of this appendix, which provides a correlation between sieve opening size and TFV.

Table 1. Determination of Threshold Friction Velocity (TFV)

Tyler Sieve No.	ASTM 11 Sieve No.	Opening (mm)	TFV (cm/s)
5	5	4	135
9	10	2	100
16	18	1	76
32	35	0.5	58
60	60	0.25	43
Collector Pan	---	---	30

D.2 Collect at least three soil samples which represent random portions of the overall conditions of the site, repeat the above TFV test method for each sample and average the resulting TFVs together to determine the TFV uncorrected for non erodible elements. Non-erodible elements are distinct elements, in the random portion of the overall conditions of the site, that are larger than 1 cm in diameter, remain firmly in place during a wind episode, and inhibit soil loss by consuming Section of the shear stress of the wind. Non-erodible elements include stones and bulk surface material but do not include flat or standing vegetation. For surfaces with non-erodible elements, determine corrections to the TFV by identifying the fraction of the survey area, as viewed from directly overhead, that is occupied by non-erodible elements using the following procedure. Select a survey area of 1 meter by 1 meter that represents a random portion of the overall conditions of the site. Where many non-erodible elements lie within the survey area, separate the non-erodible elements into groups according to size. For each group, calculate the overhead area for the non-erodible elements according to the following equations:

Average Dimensions = (Average Length) x (Average Width)	Eq. 1
Overhead Area = (Average Dimensions) x (Number of Elements)	Eq. 2
Total Overhead Area = Overhead Area Of Group 1 + Overhead Area of Group 2 (etc)	Eq. 3
Total Frontal Area = Total Overhead Area/2	Eq. 4
Percent Cover of Non-Erodible Elements = (Total Frontal Area/Survey Area) x 100	Eq. 5

Note: Ensure consistent units of measurements (e.g., square meters or square inches when calculating percent cover).

Repeat this procedure on an additional two distinct survey areas that represent a random portion of the overall conditions of the site and average the results. Use Table 2 of this appendix to identify the correction factor for the percent cover of non-erodible elements. Multiply the TFV by the corresponding correction factor to calculate the TFV corrected for non-erodible elements.

Table 2. Correction Factors for Threshold Friction Velocity

Percent Cover of Non-Erodible Elements	Correction Factor
Greater than or equal to 10%	5
Greater than or equal to 5% and less than 10%	3
Less than 5% and greater than or equal to 1%	2
Less than 1%	None

SECTION E DETERMINATION OF FLAT VEGETATIVE COVER

Flat vegetation includes attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind. Flat vegetation, which is dead but firmly attached, shall be considered equally protective as live vegetation. Stones or other aggregate larger than 1 centimeter in diameter shall be considered protective cover in the course of conduction the line transect test method. Where flat vegetation exists conduct the following line transect test method.

E.1 Line Transect Test Method. Stretch a 100 foot measuring tape across a survey area that represents a random portion of the overall conditions of the site. Firmly anchor both ends of the measuring tape into the surface using a tool such as a screwdriver, with the tape stretched taut and close to the soil surface. If vegetation exists in regular rows, place the tape diagonally (at approximately a 45° angle) away from a parallel or perpendicular position to the vegetated rows. Pinpoint an area the size of a 3/32 inch diameter brazing rod or wooden dowel centered above each 1 foot interval mark along one edge of the tape. Count the number of times that flat vegetation lies directly underneath the pinpointed area at 1 foot intervals. Consistently observe the underlying surface from a 90° angle directly above each pinpoint on one side of the tape. Do not count the underlying surface as vegetated if any portion of the pinpoint extends beyond the edge of the vegetation underneath in any direction. If clumps of vegetation or vegetative debris lie underneath the pinpointed area, count the surface as vegetated, unless bare soil is visible directly below the pinpointed area. When 100 observations have been made, add together the number of times a surface was counted as vegetated. This total represents the percent of flat vegetations cover (e.g., if 35 positive counts were made, then vegetation cover is 35%.) If the survey area that represents a random portion of the overall conditions of the site is too small for 100 observations, make as many observations as possible. Then multiply the count of vegetated surface areas by the appropriate conversion factor to obtain percent cover. For example, if vegetation was counted 20 times within a total of 50 observations, divide 20 by 50 and multiply by 100 to obtain a flat vegetation cover of 40%.

E.2 Conduct the line transect test method, as described in section E.1 of this appendix, an additional two times on areas that represent a random portion of the overall conditions of the site and average results.

SECTION F DETERMINATION OF STANDING VEGETATIVE COVER.

Standing vegetation includes vegetation that is attached (rooted) with a predominant vertical orientation. Standing vegetation, which is dead but firmly rooted, shall be considered equally protective as live vegetation. Conduct the following standing vegetation test method to determine if 30% cover or more exists. If the resulting percent cover is less than 30% but equal to or greater than 10%, then conduct the test in Section D; “Determination Of Threshold Friction Velocity (TFV,) of this appendix in order to determine if the site is stabilized, such that the

standing vegetation cover is equal to or greater than 10%, where threshold friction velocity, corrected for non-erodible elements, is equal to or greater than 43cm/second.

F.1 For standing vegetation that consists of large, separate vegetative structures (e.g., shrubs and sagebrush,) select a survey area that represents a random portion of the overall conditions of the site that is the shape of a square with sides equal to at least 10 times the average height of the vegetative structures. For smaller standing vegetation, select a survey area of three feet by three feet.

F.2 Count the number of standing vegetative structures within the survey area. Count vegetation, which grows in clumps as a single unit. Where different types of vegetation exist and/or vegetation of different height and width exists, separate the vegetative structures with similar dimensions into groups. Count the number of vegetative structures in each group within the survey area. Select an individual structure within each group that represents the average height and width of the vegetation in the group. If the structure is dense (e.g., when looking at it vertically from base to top there is little or zero open air space within its perimeter,) calculate and record its frontal silhouette area, according to Equation 6 of this appendix. Also, use Equation 6 of this appendix to estimate the average height and width of the vegetation if the survey area is larger than nine square feet. Otherwise, use the procedure in section F.3 of this appendix to calculate the frontal silhouette area. Then calculate the percent cover of standing vegetation according to Equations 7, 8, and 9 of this appendix.

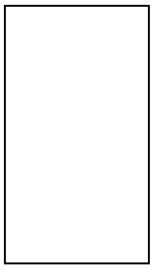
Frontal Silhouette Area = (Average Height) x (Average Width)	Eq. 6
Frontal Silhouette Area Of Group= (Frontal Silhouette Area Of Individual Vegetative Structure) x (Number Of Vegetation Structures Per Group)	Eq. 7
Total Frontal Silhouette Area = Frontal Silhouette Area Of Group 1 + Frontal Silhouette Area Of Group 2 (etc.)	Eq. 8
Percent Cover Of Standing Vegetation = (Total Frontal Silhouette Area/Survey Area) x 100	Eq. 9
Percent Open Space = [(Number Of Circled Gridlines Within The Outlined Area Counted	Eq.10

That Are Not Covered By Vegetation/Total Number Of Gridline Intersections Within The Outlined Area) x 100]	
Percent Vegetative Density = 100 – Percent Open Space	Eq. 11
Vegetative Density = Percent Vegetative Density/100	Eq. 12
Frontal Silhouette Area = [Max. Height x Max. Width] x [Vegetative Density/.04]o.5	Eq. 13

Note: Ensure consistent units of measurement (e.g., square meters or square inches when calculating percent cover.)

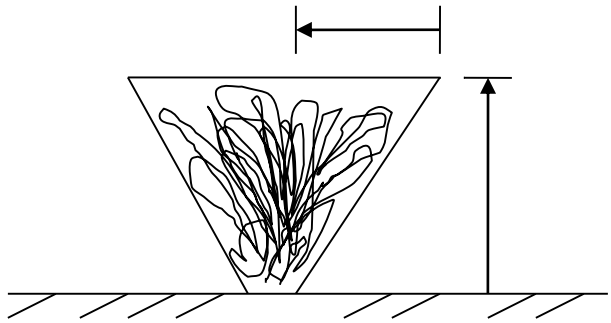
F.3 Vegetative Density Factor. Cut a single, representative piece of vegetation (or consolidated vegetative structure) to within 1cm of surface soil. Using a white paper grid or transparent grid over white paper, lay the vegetation flat on top of the grid (but do not apply pressure to flatten the structure.) Grid boxes of 1 inch or ½ inch squares are sufficient for most vegetation when conducting this procedure. Using a marker or pencil, outline the shape of the vegetation along its outer perimeter, according to Figure B, C, or D of this appendix, as appropriate. (Note: Figure C differs from Figure D primarily in that the width of vegetation in Figure C is narrow at its base and gradually broadens to its tallest height. In Figure D, the width of the vegetation generally becomes narrower from its midpoint to its tallest height.) Remove the vegetation, count and record the total number of gridline intersections within the outlined area, but do not count gridline intersections that connect with the outlined shape. There must be at least 10 gridline intersections within the outlined area and preferably more than 20, otherwise, use smaller grid boxes. Draw small circles (no greater than a 3/32 inch diameter) at each gridline intersection counted within the outlined area. Replace the vegetation on the grid within its outlined shape. From a distance of approximately 2 feet directly above the grid, observe each circled gridline intersection. Count and record the number of circled gridline intersections that are not covered by any piece of the vegetation. To calculate percent vegetative density, use Equations 10 and 11 of this appendix. If percent vegetative density is equal to or greater than 30, use an equation (one of the equations-Equations 16, 17, or 18 of this appendix) that matches the outline used to trace the vegetation (Figure B, C, or D) to calculate its frontal silhouette area. If percent vegetative density is less than 30, use Equations 12 and 13 of this appendix to calculate the frontal silhouette area.

Figure B. Cylinder



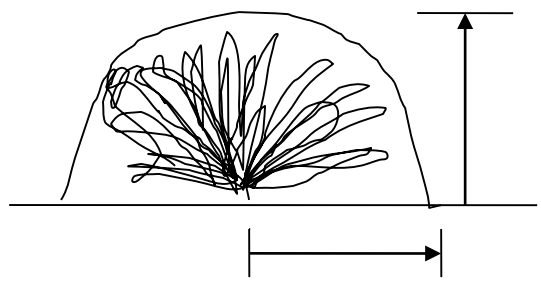
Frontal Silhouette Area = Maximum Height x Maximum Width Eq.16

Figure C. Inverted Cone



Frontal Silhouette Area = Maximum Height x ½ Maximum Width Eq. 17

Figure D. Upper Sphere



Frontal Silhouette Area = (3.14 x Maximum Height x ½ Maximum Width)/2 Eq.18

SECTION G ROCK TEST METHOD

The Rock Test Method, which is similar to Section D, Test Methods For Stabilization-Determination Of Threshold Friction Velocity (TFV) of this appendix, examines the wind-resistance effects of rocks and other non-erodible elements on disturbed surfaces. Non-erodible elements are objects larger than 1 centimeter (cm) in diameter that remain firmly in place even on windy days. Typically, non-erodible elements include rocks, stones, glass fragments, and hardpacked clumps of soil lying on or embedded in the surface. Vegetation does not count as a non-erodible element in this method. The purpose of this test method is to estimate the percent cover of non-erodible elements on a given surface to see whether such elements take up enough space to offer protection against windblown dust. For simplification, the following test method refers to all non-erodible elements as 'rocks."

G.1 Select a 1 meter by 1 meter survey area that represents the general rock distribution on the surface. A 1 meter by 1 meter area is slightly greater than a 3 foot by 3 foot area.

Mark-off the survey area by tracing a straight, visible line in the dirt along the edge of a measuring tape or by placing short ropes, yard sticks, or other straight objects in a square around the survey area.

G.2 Without moving any of the rocks or other elements, examine the survey area. Since rocks >3/8 inch (1cm) in diameter are of interest, measure the diameter of some of the smaller rocks to get a sense of which rocks need to be considered.

G.3 Mentally group the rocks >3/8 inch (1cm) diameter lying in the survey area into small, medium, and large size categories. Or, if the rocks are all approximately the same size, simply select a rock of average size and typical shape. Without removing any of the rocks from the ground, count the number of rocks in the survey area in each group and write down the resulting number.

G.4 Without removing rocks, select one or two average-size rocks in each group and measure the length and width. Use either metric units or standard units. Using a calculator, multiply the length times the width of the rocks to get the average dimensions of the rocks in each group. Write down the results for each rock group.

G.5 For each rock group, multiply the average dimensions (length times width) by the number of rocks counted in the group. Add the results from each rock group to get the total rock area within the survey area.

G.6 Divide the total rock area, calculated in section G.5 of this appendix, by two (to get frontal area.) Divide the resulting number by the size of the survey area (make sure the units of measurement match,) and multiply by 100 for percent rock cover. For example, the total rock area is 1,400 square centimeters divide 1,400 by 2 to get 700. Divide 700 by 10,000 (the survey area is 1 meter by 1 meter, which is 100 centimeters by 100 centimeters or 10,000 centimeters) and multiply by 100. The result is 7% rock cover. If rock measurements are made in inches, convert the survey area from meters to inches (1 inch = 2.54 centimeters.)

G.7 Select and mark-off two additional survey areas and repeat the procedures described in section G.1 through section G.6 of this appendix. Make sure the additional survey areas also represent the general rock distribution on the site. Average the percent cover results from all three survey areas to estimate the average percent of rock cover.

G.8 If the average rock cover is greater than or equal to 10%, the surface is stable. If the average rock cover is less than 10%, follow the procedures in section G.9 of this appendix.

G.9 If the average rock cover is less than 10%, the surface may or may not be stable. Follow the procedures in Section D.3 Determination Of Threshold Friction Velocity (TFV) of this rule and use the results from the rock test method as a correction (i.e., multiplication) factor. If the rock cover is at least 1%, such rock cover helps to limit windblown dust.

However, depending on the soil's ability to release fine dust particles into the air, the percent rock cover may or may not be sufficient enough to stabilize the surface. It is also possible that the soil itself has a high enough TFV to be stable without even accounting for rock cover.

G.10 After completing the procedures described in Section G.9 of this appendix, use Table 2 of this appendix to identify the appropriate correction factor to the TFV, depending on the percent rock cover.

RULE 801 CONSTRUCTION AND EARTHMOVING ACTIVITIES
(Adopted 11/08/2005)

A. Purpose

The purpose of this rule is to reduce the amount of fine Particulate Matter (PM-10) entrained in the ambient air as a result of emissions generated from Construction and other Earthmoving Activities by requiring actions to prevent, reduce, or mitigate PM-10 emissions.

B. Applicability

This rule applies to any Construction and other Earthmoving Activities, including, but not limited to, land clearing, excavation related to construction, land leveling, grading, cut and fill grading, erection or demolition of any structure, cutting and filling, trenching, loading or unloading of bulk materials, demolishing, drilling, adding to or removing bulk of materials from open storage piles, weed abatement through disking, back filling, travel on-site and travel on access roads to and from the site.

C. Definitions

The definition~~s~~ of terms found in Rule 800 (General Requirements for Control of Fine Particulate Matter (PM-10) shall apply to this rule.

D. Exemptions

In addition to the exemptions listed in Rule 800, Section E, the following exemptions are established for this rule:

D.1 Construction or demolition at existing single family residential dwellings.

D.2 The 20% opacity limit of Sections E.1.a and E.2.b shall not apply when Wind Gusts exceed 25 miles per hour, provided that at least one of the following control measures is implemented for each applicable Fugitive Dust source type:

D.2.a Cease dust generating activities for a period of one hour after Wind Gusts last exceed the threshold. If operations cease for the remainder of the day, stabilization measures must be implemented.

D.2.b Apply water or dust Suppressants once per hour.

D.2.c Apply water to maintain 12% soil moisture content.

D.2.d Construct fences 3-5 feet high with 50% or less porosity, and must be done

in conjunction with another measure, as above.

E. Requirements

E.1 Construction sites and Earthmoving Activities:

E.1.a All Persons who own or operate a Construction site shall comply with the requirements of Section F.1 so as to limit VDE to 20% opacity and comply with the conditions for a Stabilized Surface when applicable.

E.1.b All Persons who perform any Earthmoving Activities shall comply with the requirements of Section F.1 so as to limit VDE to 20% opacity.

E.1.c All Persons who own or operate a Construction site of 10 acres or more in size for residential developments or 5 acres or more for non-residential developments shall develop a dust control plan. The dust control plan shall be made available to the APCD upon request. The dust control plan shall comply with the requirements of Section F.

E.1.d The owner or operator required to develop a dust control plan shall provide written notification to the APCD within 10 days prior to the commencement of any Construction activities via fax or mail. The requirement to develop a dust control plan shall apply to all such activities conducted for residential and non-residential (e.g., commercial, industrial, or institutional) purposes or conducted by any governmental entity. Regardless of whether a dust control plan is in place or not the owner or operator is still subject to comply with all requirements of the applicable rules under Regulation VIII at all times.

F. Best Available Control Measures for Fugitive Dust (PM-10)

F.1 Construction and Earthmoving Activities shall comply with the following requirements:

F.1.a Pre-Activity:

F.1.a.1 Pre-water site sufficient to limit VDE to 20% opacity, and

F.1.a.2 Phase work to minimize the amount of disturbed surface area at any one time.

F.1.b During Active Operations:

F.1.b.1 Apply water or Chemical Stabilization as directed by product

manufacturer to limit VDE to 20% opacity, or

F.1.b.2 Construct and maintain wind barriers sufficient to limit VDE to 20% opacity. If utilizing wind barriers, control measure F.1.b.1 above shall be implemented.

F.1.b.3 Apply water or Chemical Stabilization as directed by product manufacturer to unpaved haul/access roads and Unpaved Traffic Areas sufficient to limit VDE to 20% opacity and meet the conditions of a Stabilized Unpaved Road.

F.1.c Temporary Stabilization During Periods of Inactivity:

F.1.c.1 Restrict vehicular access to the area by fencing or signage; and

F.1.c.2 Apply water or Chemical Stabilization, as directed by product manufacturer, sufficient to comply with the conditions of a Stabilized Surface. If an area having 0.5 acres or more of disturbed surface area remains unused for seven or more days, the area must comply with the conditions for a Stabilized Surface area.

F.1.d Track Out/Carry Out of Bulk Materials at the site shall be mitigated in compliance with Rule 803.

F.1.e Unpaved Roads and Unpaved Traffic Areas at the site shall comply with Rule 805.

F.1.f Bulk Material handling operations at the site shall comply with Rule 802.

F.1.g Material transport of Bulk Material to, from, or around the site shall comply with Rule 802.

F.1.h Haul trucks transporting Bulk Material to, from, or around the site shall comply with Rule 802.

F.2 Dust Control Plan:

F.2.a Retain a copy of the dust control plan at the project site.

F.2.b Comply with the requirements of the approved dust control plan.

F.2.c A dust control plan shall contain all of the following information:

1. Name, address, and phone number of the Person responsible for the preparation, submittal, and implementation of the dust control plan and responsible for the project site.

2. A plot plan which shows the type and location of each project.

3. The total area of land surface to be disturbed, estimated daily throughput volume of earthmoving in cubic yards, and total area in acres of the entire project site.

4. The expected start and completion dates of dust generating and soil disturbance activities to be performed on the site.

5. The actual and potential sources of Fugitive Dust emissions on the site and the location of Bulk Material handling and storage areas, Paved and Unpaved Roads, entrances and exits where Track Out/Carry Out may occur, and Unpaved Traffic Areas.

6. Dust Suppressants to be applied, including: product specifications; manufacturer's usage instructions (method, frequency, and intensity of application); type, number, and capacity of application equipment; and information on environmental impacts and approvals or certifications related to appropriate and safe use for ground application.

7. Specific surface treatment(s) and/or control measures utilized to control Track Out/Carry Out, and sedimentation where unpaved and/or access points join paved public access roads.

8. The dust control plan should describe all Fugitive Dust control measures to be implemented before, during, and after any dust generating activity.

G. Record of Control Implementation

Any Person subject to the requirements of this rule shall compile and retain records that provide evidence of control measure application (i.e., receipts and/or purchase records). Such Person shall describe, in the records, the type of treatment or control measure, extent of coverage, and date applied. For control measures which require multiple daily applications, recording the frequency of application will fulfill the recordkeeping requirements of this rule (i.e., water being applied three times a day and the date) Records shall be maintained and be readily accessible for two years after the date of each entry and shall be provided to the APCD upon request.

H. Violations

Failure to comply with any provisions of this rule shall constitute a violation of Regulation VIII.

RULE 802 BULK MATERIALS
(Adopted 11/08/2005)

A. Purpose

The purpose of this regulation is to reduce the amount of fine Particulate Matter (PM-10) entrained in the ambient air as a result of emissions generated from outdoor handling, storage, and transport of Bulk Material by requiring actions to prevent, reduce, or mitigate PM-10 emissions.

B. Applicability

This rule applies to the outdoor handling, storage, and transport of Bulk Material, including, but not limited to, earth, rock, silt, sediment, sand, gravel, soil, fill, Aggregate Materials, dirt, mud, debris, and other organic and/or inorganic material consisting of or containing Particulate Matter with five percent or greater silt content.

C. Definitions

The definition~~s~~ of terms found in Rule 800 (General Requirements for Control of Fine Particulate Matter (PM-10) shall apply to this rule.

D. Exemptions

In addition to the exemptions listed in Rule 800, Section E, the following exemptions are established for this rule:

D.1 Outdoor storage, transport, or handling of Bulk Materials (including, but not limited to, organic or inorganic fertilizer, grains, seed, soil amendments, and feed) which would be damaged by wetting with water or by the application of Chemical Stabilization/Suppression, provided owners/operators demonstrate to the satisfaction of the APCO that none of the control measures required by this rule can be implemented to limit VDE to 20% opacity or provide a Stabilized Surface, as defined in Rule 800.

D.2 Outdoor storage or handling of any Bulk Material at a single site where no material is actively being added or removed at the end of the workday or overnight and where the total material stored is less than 100 cubic yards.

D.3 Transport of a Bulk Material in an outdoor area for a distance of twelve feet or less with the use of a chute or conveyor device.

D.4 Transport/hauling of Bulk Materials when conducted within the boundaries of a premises, are exempt from the requirements specified in Sections F.3.a and F.3.d.

E. Requirements

E.1 Bulk Material handling: no Person shall cause, suffer, allow or engage in any Bulk Material handling operation including, but not limited to stacking, loading, unloading, conveying and reclaiming of Bulk Material, for industrial or commercial purposes without complying with one or more of the requirements of Section F.1 so as to limit VDE to 20% opacity.

E.2 Bulk Material storage: no Person shall cause, suffer, allow or engage in any Bulk Material storage, for industrial or commercial purposes without complying with one or more of the requirements of Section F.2 so as to limit VDE to 20% opacity.

E.3 Material transport: no Person shall cause, suffer, allow or otherwise engage in the transportation of Bulk Materials for industrial or commercial purposes, without complying with all of the requirements of Section F.3 so as to limit VDE to 20% opacity.

E.4 Haul Trucks: no Person shall cause, suffer, allow or otherwise engage in the use or operation of any Haul Truck, for industrial or commercial purposes, of transporting or storing Bulk Material without complying with all of the requirements of Section F.3 so as to limit VDE to 20% opacity.

F. Best Available Control Measures for Fugitive Dust (PM-10)

F.1 BULK MATERIAL HANDLING/TRANSFER:

F.1.a Spray with water prior to handling and/or at points of transfer; or.

F.1.b Apply and maintain Chemical Stabilization, or

F.1.c Protect from wind erosion by sheltering or enclosing the operation and transfer line.

F.2 BULK MATERIAL STORAGE

F.2.a When storing Bulk Materials, comply with the conditions for a Stabilized Surface; or

F.2.b Cover Bulk Materials stored outdoors with tarps, plastic, or other suitable material and anchor in such a manner that prevents the cover from being removed by wind action, or

F.2.c Construct and maintain barriers with less than 50% porosity. If utilizing

fences or wind barriers, apply water or chemical/organic stabilizers/suppressants, or

F.2.d Utilize a 3-side structure with a height at least equal to the height of the storage pile and with less than 50% porosity.

F.3 MATERIAL TRANSPORT/HAULING:

F.3.a Completely cover or enclose all Haul Truck loads of Bulk Material.

F.3.b Haul Trucks transporting loads of Aggregate Materials shall not be required to cover their loads if the load, where it contacts the side, front, and back of the cargo container area remains six inches from the upper area of the container area, and if the load does not extend, at its peak, above any part of the upper edge of the cargo container area (As defined in Section 23114 of the California Vehicle Code for both public and private roads).

F.3.c The cargo compartment(s) of all Haul Trucks are to be constructed and maintained so that no spillage and loss of Bulk Material can occur from holes or other openings in the cargo compartment's floor, side, and/or tailgate. Seals on any openings used to empty the load including, but not limited to, bottom-dump release gates and tailgates to be properly maintained to prevent the loss of Bulk Material from those areas.

F.3.d The cargo compartment of all Haul Trucks is to be cleaned and/or washed at delivery site after removal of Bulk Material.

G. Record of Control Implementation

Any Person subject to the requirements of this rule shall compile and retain records that provide evidence of control measure application (i.e., receipts and/or purchase records). Such Person shall describe, in the records, the type of treatment or control measure, extent of coverage, and date applied. For control measures which require multiple daily applications, recording the frequency of application will fulfill the recordkeeping requirements of this rule (i.e., water being applied three times a day and the date) Records shall be maintained and be readily accessible for two years after the date of each entry and shall be provided to the APCD upon request.

H. Violations

Failure to comply with any provision~~s~~ of this rule shall constitute a violation of Regulation VIII.

RULE 803 CARRY-OUT AND TRACK-OUT
(Adopted 11/08/2005)

A. Purpose

The purpose of this regulation is to reduce the amount of fine Particulate Matter (PM-10) entrained in the ambient air as a result of emissions generated from Track-Out and Carry-Out by requiring actions to prevent, reduce, or mitigate PM-10 emissions.

B. Applicability

This rule applies to all sites that are subject to Regulation VIII where Track-Out or Carry-Out has occurred or may occur on paved public roads or the paved shoulders of a paved public road.

C. Definitions

The definition~~s~~ of terms found in Rule 800 (General Requirements for Control of Fine Particulate Matter (PM-10) shall apply to this rule.

D. Exemptions:

In addition to the exemptions listed in Rule 800, Section E, the following exemptions are established for this rule:

D.1 Agricultural Operation Sites defined in and subject to Rule 806, Conservation Management Practices, are exempt from the requirements specified in Sections F.1.b and F.1.c.

D.2 Any operation site that operates no more than 10 days within a 90 days period at each location is exempt from the requirements specified in Sections F.1.b and F.1.c.

E. Requirements

E.1 Track Out/Carry Out: any Person who causes the deposition of Bulk Material by tracking out or carrying out onto a Paved Road surface shall comply with the requirements of Section F.1, as specified, to prevent or mitigate such deposition.

F. Best Available Control Measures for Fugitive Dust (PM-10)

F.1 TRACK OUT/CARRY OUT:

F.1.a Clean up any Bulk Material tracked out or carried out onto a Paved Road on the following time-schedule:

(1) Within urban areas, immediately, when Track-Out or Carry-Out extends a cumulative distance of 50 linear feet or more; and

(2) At the end of the workday, for all other Track-Out or Carry-Out.

F.1.b In addition to F.1.a, all sites with access to a Paved Road and with 150 or more Average Vehicle Trips per Day, or 20 or more Average Vehicle Trips per Day by vehicles with three or more axles shall install one or more Track-Out Prevention Devices or other APCO approved Track-Out control device or wash down system at access points where unpaved traffic surfaces adjoin Paved Roads; or

F.1.c In addition to F.1.a, all sites with access to a Paved Road and with 150 or more Average Vehicle Trips per Day, or 20 or more Average Vehicle Trips per Day by vehicles with three or more axles shall apply and maintain paving, Chemical Stabilization, or at least 3 inch depth of Gravel (using Gravel or other low Silt (<5%) content material), for a distance of 50 or more consecutive feet at access points where Unpaved Roads adjoin Paved Roads.

G. Record of Control Implementation

Any Person subject to the requirements of this rule shall compile and retain records that provide evidence of control measure application (i.e., receipts and/or purchase records). Such Person shall describe, in the records, the type of treatment or control measure, extent of coverage, and date applied. Records shall be maintained and be readily accessible for two years after the date of each entry and shall be provided to the APCD upon request.

H. Violations

Failure to comply with any provisions of this rule shall constitute a violation of Regulation VIII.

RULE 804 OPEN AREAS
(Adopted 11/08/2005; Revised 10/16/2012)

A. Purpose

The purpose of this regulation is to reduce the amount of fine Particulate Matter (PM-10) entrained in the ambient air as a result of emissions generated from Open Areas by requiring actions to prevent, reduce, or mitigate PM-10 emissions.

B. Applicability

This rule shall apply to any open area having 0.5 acres or more within urban areas, or 3.0 acres or more within rural areas; and contains at least 1000 square feet of disturbed surface area.

C. Definitions

The definition of terms found in Rule 800 (General Requirements for Control of Fine Particulate Matter (PM-10) shall apply to this rule.

D. Exemptions

In addition to the exemptions listed in Rule 800, Section E, the following exemptions are established for this rule:

D.1 Agricultural Operation Sites subject to Rule 806, Conservation Management Practices.

D.2 Recreational OHV Use Areas on public lands subject to Rule 800, General Requirements for Control of Fine Particulate Matter (PM-10).

E. Requirements

E.1 Open Areas: all Persons who own or otherwise have jurisdiction over an Open Area shall comply with one or more of the requirements of Section F.1 to comply with the conditions of a Stabilized Surface at all times and limit VDE to 20% opacity.

E.2 Vehicle use in Open Areas: within 30 days following initial discovery of evidence of trespass, a Person who owns or otherwise has jurisdiction over an Open Area shall prevent unauthorized vehicle access by posting "No Trespassing" signs or installing physical barriers such as fences, gates, posts, and/or appropriate barriers to effectively prevent access to the area.

F. Best Available Control Measures for Fugitive Dust (PM-10)

F.1 OPEN AREAS

F.1.a Apply and maintain water or dust suppressant(s) to all unvegetated areas.

F.1.b Establish vegetation on all previously disturbed areas.

F.1.c Pave, apply and maintain Gravel, or apply and maintain Chemical Stabilizers/Suppressants

G. Record of Control Implementation

Any Person subject to the requirements of this rule shall compile and retain records that provide evidence of control measure application (i.e., receipts and/or purchase records). Such Person shall describe, in the records, the type of treatment or control measure, extent of coverage, and date applied. For control measures which require multiple daily applications, recording the frequency of application will fulfill the recordkeeping requirements of this rule (i.e., water being applied three times a day and the date) Records shall be maintained and be readily accessible for two years after the date of each entry and shall be provided to the APCD upon request.

H. Violations

Failure to comply with any provisions of this rule shall constitute a violation of Regulation VIII.

RULE 805 PAVED AND UNPAVED ROADS
(Adopted 11/08/2005; Revised 10/16/2012)

A. Purpose

The purpose of this regulation is to reduce the amount of fine Particulate Matter (PM-10) entrained in the ambient air as a result of emissions generated from new or existing public or private Paved or Unpaved Road, road construction project, or road modification project by requiring actions to prevent, reduce, or mitigate PM-10 emissions.

B. Applicability

This rule applies to any new or existing public or private Paved or Unpaved Road, road construction project, or road modification project.

C. Definitions

The definition of terms found in Rule 800 (General Requirements for Control of Fine Particulate Matter (PM-10) shall apply to this rule.

D. Exemptions

In addition to the exemptions listed in Rule 800, Section E, the following exemptions are established for this Rule:

D.1 Paved and unpaved driveways serving one single family residential dwelling.

D.2 Agricultural Operation Sites subject to Rule 806, Conservation Management Practices.

D.3 Recreational OHV Use Areas on public lands subject to Rule 800, General Requirements for Control of Fine Particulate Matter (PM-10).

E. Requirements

E.1 Unpaved Haul/Access Roads: No Person shall cause, suffer or allow the operation, use, or maintenance of any unpaved Haul/Access Road without complying with one or more of the requirements of Section F.1 so as to limit VDE to 20% opacity.

E.2 Unpaved Roads: On any Unpaved Road segment with 50 or more Average Vehicle Trips per Day, the owner/operator shall limit VDE to 20% opacity, as determined by the test methods for “Visual Determination of Opacity” in Rule 800, Appendix A, and comply with the requirements of a Stabilized Unpaved Road by application and/or maintenance of at least one of the requirements of Section F.1.

E.3 The construction of any new Unpaved Road is prohibited within any area with a population of 500 or more unless the road meets the definition of a Temporary Unpaved Road. The Temporary Unpaved Road shall meet the definition of a Stabilized Unpaved Road as determined by the test methods in Rule 800, Appendix B, Section C, and where VDE is limited to 20% opacity.

E.4 Canal Roads: all Persons who cause, suffer or allow the operation, use or maintenance of any Canal Road with 20 or more Average Vehicle Trips per Day shall comply with one or more of the requirements of Section F.1 to comply with the requirements of a Stabilized Unpaved Road and limit VDE to 20% opacity, as determined by the test methods in Rule 800, Appendix A, and shall also comply with one or more of the requirements of Section F.2.

E.5 Unpaved Traffic Areas: All Persons who cause, suffer or allow the operation, use or maintenance of any Unpaved Traffic Area larger than one (1) acre and with 75 or more Average Vehicle Trips per Day shall comply with one or more of the requirements of Section F.3 and limit VDE to 20% opacity.

E.6 Paved Roads: any new or Modified Paved Roads shall comply with the requirements of section F.4.

E.7 Requirements for Existing Unpaved Public Roads in City and Rural Areas:

Each city or county agency with primary responsibility for any existing Unpaved Road shall take the following actions:

E.7.a By January 1, 2006 provide the APCD with a list of all Unpaved Roads under its jurisdiction in any city or Rural area(s), including data on length of, and Average Vehicle Trips per Day on, each Unpaved Road segment.

E.7.b By March 31, 2006 the County Public Works Department shall provide the APCD and comply with a compliance plan. The compliance plan shall include a compliance schedule indicating that during the period 2006 through 2015 a 10% per each fiscal year, beginning July 1 and ending June 30, of all Unpaved Roads subject to the requirements of this rule will comply with a 20% VDE and comply with the requirements of a Stabilized Unpaved Road (Treatment in excess of the annual requirement can be credited toward future year requirements). The plan shall identify the control measures implemented or that will be implemented at each Unpaved Road segment with 50 or more Average Vehicle Trips per Day. The plan shall clarify that the 10% stabilized each year differ from the roads previously stabilized so that 100% of roads are stabilized by 2015.

E.7.c By July 31 of each year, 2007 through 2016, the County Public Works Department shall submit to the APCD the total number of Unpaved Road miles which were mitigated during the previous fiscal year, a list of the specific mitigated roads, and the percentage of cumulative miles relative to the schedule provided pursuant to Section E.7.b. Once stabilized pursuant to Section E.7, Public Roads must comply with the requirements of a Stabilized Unpaved Road by application and/or maintenance of at least one of the requirements of Section F.1.

F. Best Available Control Measures for Fugitive Dust (PM-10)

F.1 UNPAVED ROADS, INCLUDING UNPAVED HAUL AND ACCESS ROADS:

F.1.a Pave.

F.1.b Apply Chemical Stabilization as directed by product manufacturer to control dust on Unpaved Roads.

F.1.c Apply and maintain Gravel, recrushed/recycled asphalt or other material of low Silt (<5%) content to a depth of three or more inches.

F.1.d Wetting. Apply water one or more times daily

F.1.e Permanent road closure

F.1.f Restrict unauthorized vehicle access.

F.1.g Any other method that effectively limits VDE to 20% opacity and meets the conditions of a Stabilized Unpaved Road.

F.2 CANAL ROADS:

F.2.a Stocking of Triploid Grass Carp in canals to reduce maintenance vehicle trips along Canal Banks to mechanically remove aquatic weeds.

F.2.b Installation of remote control delivery gates to eliminate manual gate operation by maintenance personnel in vehicles along Canal Banks.

F.2.c Implement Silt removal program to delay grading of spoil piles deposited on Canal Bank after cleaning operations until the next cleaning operation to eliminate vehicle access to Canal Bank.

F.2.d Permanent road closure.

F.2.e Conversion of open canals to pipeline.

F.2.f Lining canals to eliminate maintenance for Silt/weed control.

F.2.g Canal Bank surface maintenance.

F.3 UNPAVED TRAFFIC AREAS:

F.3.a Pave.

F.3.b Apply Chemical Stabilization as directed by product manufacturer to control dust on Unpaved Roads.

F.3.c Apply and maintain Gravel, recrushed/recycled asphalt or other material of low silt (<5%) content to a depth of three or more inches.

F.3.d Wetting. Apply water one or more times daily.

F.4 NEW OR MODIFIED PAVED ROADS

Any Person having jurisdiction over, or ownership of, public or private Paved Roads shall construct, or require to be constructed, all new or Modified Paved Roads in conformance with the Imperial County Public Works Department guidelines for width of shoulders and median shoulders as specified below:

F.4.a New arterial roads or streets or modifications to existing arterial roads or streets shall be constructed with paved shoulders that meet following widths:

Annual Average Daily Vehicle Trips	Minimum Paved or Stabilized Shoulder Width in Feet
1-2000	2
Greater than 2000	6

F.4.b New or modified collector roads or streets or local roads or streets shall be constructed with paved shoulders that meet following widths:

Annual Average Daily Vehicle Trips	Minimum Paved or Stabilized Shoulder Width in Feet
1-2000	2
Greater than 2000	4

F.4.c A curbing adjacent to and contiguous with the travel lane or paved

shoulder or a road may be constructed, in lieu of meeting the paved shoulder width standard listed in Sections F.4.a and F.4.b. Any road paving projects constructing curbing in County road right of ways shall be approved by the Director of Public Works Department prior to construction.

F.4.d Intersections, auxiliary entry lanes, and auxiliary exit lanes may be constructed adjacent to and contiguous with the roadway, in lieu of meeting the paved shoulder width standard in Sections F.4.a and F.4.b.

F.4.e New Paved Road construction or modifications to an existing Paved Road that are required to comply with California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) determinations regarding environmental, cultural, archeological, historical, or other considerations addressed in such documents, are exempt from the paved shoulder width requirements specified in Section F.4.a.

F.4.f Whenever any Paved Road which has projected Annual Average Daily Vehicle Trips of 500 or more is constructed, or modified with medians, the medians shall be constructed with paved shoulders having a minimum width of four feet adjacent to the traffic lanes unless:

F.4.f.1 The medians of roads having speed limits set at or below 45 miles per hour are constructed with curbing; or

F.4.f.2 The medians are landscaped and maintained with grass or other vegetative ground cover to comply with the definition of Stabilized Surface.

F.4.g In lieu of complying with the paving or vegetation requirements a Person may apply oils or other Chemical Stabilizers/Suppressants to the required width of shoulder and median areas as specified in Sections F.4.a and F.4.b. The material shall be reapplied and maintained to limit VDE to 20% opacity and fulfill conditions for a Stabilized Surface.

G. Record of Control Implementation

Any Person subject to the requirements of this rule shall compile and retain records that provide evidence of control measure application (i.e., receipts and/or purchase records). Such Person shall describe, in the records, the type of treatment or control measure, extent of coverage, and date applied. For control measures which require multiple daily applications, recording the frequency of application will fulfill the recordkeeping requirements of this rule (i.e., water being applied three times a day and the date)

Records shall be maintained and be readily accessible for two years after the date of each entry and shall be provided to the APCD upon request.

H. Violations

Failure to comply with any provisions of this rule shall constitute a violation of Regulation VIII.

RULE 806 CONSERVATION MANAGEMENT PRACTICES
(Adopted 11/08/2005; Revised 10/16/2012)

A. Purpose

The purpose of this regulation is to reduce the amount of coarse Particulate Matter (PM-10) entrained in the ambient air as a result of emissions generated from Agricultural Operation Sites by requiring Conservation Management Practices to prevent, reduce, or mitigate PM-10 emissions.

B. Applicability

This rule applies to Agricultural Operation Sites located within Imperial County. Effective on and after January 1, 2013, an owner/operator shall implement the applicable CMPs selected for each Agricultural Operation Site. The provisions of this rule adopted on November 8, 2005 shall remain in effect until January 1, 2013 at which time the amendments adopted on October 16, 2012 shall take effect.

C. Definitions

In addition to the definitions of terms in Rule 800 (General Requirements for Control of Fine Particulate Matter (PM-10), the following definitions shall govern the implementation of this rule:

C.1 AGRICULTURAL OPERATIONS: The growing and harvesting of crops for the primary purpose of earning a living.

C.2 AGRICULTURAL OPERATION SITE: One or more agricultural parcels that meet the following:

C.2.a Are under the same or common ownership or operation, or which are owned or operated by entities which are under common control; and

C.2.b Are located on one or more contiguous or adjacent properties wholly within Imperial County.

C.3 AGRICULTURAL PARCEL: A portion of real property used by an owner or operator for carrying out a specific agricultural operation. Roads, vehicle/equipment traffic areas, and facilities, on or adjacent to the cropland are part of the agricultural parcel.

C.4 ALTERNATIVE TILLING: Till alternative rows for weed management, reducing approximately 50% of field activity related to tilling, in addition to stabilizing soil surface and reducing soil compaction.

C.5 APPLICATION EFFICIENCIES: Use more efficient application equipment so as to reduce a minimum of one ground operation. Examples include: compact or low volume spray equipment; aerial applications; micro-heads or infrared spot sprayers; electrostatic sprayers. Reduces soil compaction, passes and chemical usage.

C.6 BALING/LARGE BALES: Reduce a minimum of one pass through the field per acre by using large balers to harvest crops.

C.7 BED/ROW SIZE OR SPACING: Reduce a minimum of one tillage operation by Increasing or decreasing the size of the planting bed area (can be done for field and permanent crops) or adjusting spacing. Spacing adjustments reduce the number of passes and soil disturbance by increasing plant density/canopy through reduction of row width to contain PM within the canopy.

C.8 BULK MATERIALS CONTROL: Minimize visible dust emissions from bulk materials by using dust suppressant or water to form a stabilized surface, or using a tarp to fully cover the pile or truckbed, or using a wind barrier or 3-sided structure to reduce entrainment of fugitive dust.

C.9 CHEMIGATION/FERTIGATION: Reduce a minimum of one ground operation by applying chemicals through an irrigation system. This reduces the need to travel in the field for application purposes, thus reducing operations and soil disturbance while increasing the efficiency of the application.

C.10 CHIPS/MULCHES, ORGANIC MATERIALS, POLYMERS, ROAD OIL & SAND: Application of any nontoxic chemical or organic dust suppressant that meets all specification required by any federal, state, or local water agency and is not prohibited for use by any applicable regulations. Chips/Mulches and organic materials should meet the specifications in the mulches definition below. Polymers, road oil and sand should create a stabilized surface during high traffic times such as harvest.

C.11 COMBINED OPERATION: Combine equipment to perform several operations during one pass, thereby reducing a minimum of one tillage operation. Examples include: use of one-pass till equipment in ground preparation or crop tillage; and cultivation and fertilization of a field crop in a single pass. Other benefits are reduction of soil compaction and time to prepare fields, both of which can be precursors to additional tillage requirements. If a combined operation is accomplished through equipment change/technological improvement, that action is considered one CMP, and either Equipment Changes/Technological Improvements CMP or Combined Operations CMP may be selected in a CMP Plan, but not both.

C.12 CONSERVATION IRRIGATION: Reduce a minimum of one tillage operation related to weeding by conserving the amount of water used by using either drip, sprinkler, or buried/underground line irrigation. Conserving water reduces weed population, which in turn reduces the need for tillage and reduces soil compaction.

C.13 CONSERVATION MANAGEMENT PRACTICE (CMP): An activity or procedure that prevents, reduces, or mitigates PM-10 normally emitted by, or associated with, an agricultural activity.

C.14 CONSERVATION MANAGEMENT PRACTICES PLAN (CMP PLAN): A document prepared by the owner or operator of an Agricultural Operation site that lists the selected CMPs for implementation. The CMP Plan also contains, but is not limited to, contact information for the owner or operator, a description of the Agricultural Operation Site and locations of Agricultural Parcels, and other information describing the extent and duration of CMP implementation.

C.15 CONSERVATION TILLAGE (e.g.: no tillage, minimum tillage): A tillage system that reduces a minimum of three tillage operations. This system reduces soil and water loss by reducing the number of passes and by leaving crop residue on the field after harvest as well as managing the residue so that it remains intact during the planting season. It reduces the number of passes and amount of soil disturbance. It improves soil because it retains plant residue and increases organic matter.

C.16 COVER CROPS: Establish cover crops that maintain a minimum of 60 percent ground cover, as determined by the Line Transect Test Method. Native or volunteer vegetation that meets the minimum ground cover requirement is acceptable.

C.17 CROP RESIDUE MANAGEMENT: Maintain crop residue from previous crops until tilling for the next crop. Crop residues must maintain a minimum of 60 percent ground cover as determined by Line Transect Test Method. Implements such as undercuters or sweeps can maintain crop residues without burying or destroying residues.

C.18 CROPLAND - OTHER: This CMP category includes CMPs to reduce windblown emissions.

C.19 CROSS WIND STRIPCROPING: Establish crops in parallel strips across the prevailing wind erosion direction and arranged so that strips susceptible to wind erosion are alternated with strips having a protective cover that is resistant to wind erosion. The strips with the protective cover should be at least as wide as the strips susceptible to wind erosion.

C.20 EQUIPMENT CHANGES/TECHNOLOGICAL IMPROVEMENTS: Reduce a minimum of one tillage operation by modifying equipment or making technological improvements. Examples include flame cultivation or equipment that combines discing, chiseling and ring rolling. If an equipment change/technological improvement is made in order to combine operations, that action is considered one CMP; either Equipment Changes/Technological Improvements CMP or Combined Operations CMP may be selected in the CMP plan, but not both.

C.21 FALLOW LAND: Temporary or permanent removal from production. Eliminates entire operation/passes or reduces activities.

C.22 FIELD WINDBREAKS: Plant or maintain a single or multiple row of trees or shrubs adjacent to windward edge of the field as close to perpendicular as practical with the direction of erosive winds. Windbreaks such as trees or shrubs should be established at a right angle to the prevailing wind direction. Sites downwind of the windbreak are considered protected if they fall within an area that is less than or equal to 10 times the height of the windbreak. The windbreak should have a porosity of 50 %.

C.23 GRAVEL: Placing a layer of Gravel at least 3 inches in depth to minimize dust generated from vehicle movement and to dislodge any excess debris which can become entrained. Gravel should conform to the grading defined in Rule 800.

C.24 GREEN CHOP: Reduce a minimum of one ground operation by harvesting a forage crop without allowing it to dry in the field. This practice reduces soil disturbance and soil compaction.

C.25 GRINDING/CHIPPING/SHREDDING: Grinding pruning's and orchard removals instead of burning; incorporate to soil. Reduces PM from burning crop residues.

C.26 GROUND OPERATION: An agricultural operation that is not a tillage operation that involves equipment passing across the field, such as a chemical spray application. A pass through the field may be a subset of a ground operation.

C.27 HAND HARVESTING: Reduce a minimum of one ground operation by harvesting a crop by hand. It reduces soil disturbance due to machinery passes.

C.28 INTEGRATED PEST MANAGEMENT: Reduce a minimum of one ground operation by using a combination of techniques including organic, conventional and biological farming concepts to suppress pest problems. It creates beneficial insect habitat that reduces the use of herbicides/pesticides thereby reducing number of passes for spraying. It also reduces soil compaction and the need for additional tillage. If integrated pest management CMP uses the same practices described in

the Organic Practices CMP, this action is considered one CMP, and either Integrated Pest Management CMP or Organic Practices CMP may be selected in a CMP plan, but not both.

C.29 IRRIGATION POWER UNITS: Use cleaner burning engines, electric motors (CMP only applicable if engines are cleaner than otherwise required by current local, state and federal requirements).

C.30 MULCHING: Reducing PM10 emissions and wind erosion and preserving soil moisture by uniformly applying a protective layer of plant residue or other material to a soil surface prior to disturbing the site to reduce soil movement. Mulching material shall be evenly applied, and if necessary, anchored to the soil. Mulch should achieve a minimum 70% cover, and a minimum of 2 inch height above the surface. Inorganic material used for mulching should consist of pieces of .75 to 2 inches in diameter.

C.31 NIGHT FARMING: Operate at night when moisture levels are higher and winds are lighter. It decreases the concentration of PM emissions during daytime and the increased ambient humidity reduces PM emissions during the night. Night farming should take place between sundown and sunrise.

C.32 NIGHT HARVESTING: Implementing harvesting practices at night when moisture levels are higher and winds are lighter. It reduces PM by operating when ambient air is moist, thereby reducing PM emissions. Night harvesting should take place between sundown and sunrise.

C.33 NO BURNING: Switching to a crop/system that would not require waste burning. It reduces emissions associated with burning.

C.34 NON TILLAGE/CHEMICAL TILLAGE: Reduce a minimum of one tillage operation by, for example, using a flail mower or low volume sprayers. It reduces soil compaction and stabilizes soil.

C.35 ORGANIC PRACTICES: Reduce a minimum of one ground or tillage operation by using biological control methods or non-chemical control methods. Examples include: organic certification, biological controls, mulches and humus. If an organic practice CMP uses the same practice as described in the integrated pest management CMP, this action is considered one CMP, and either Organic Practices CMP or Integrated Pest Management CMP may be selected in a CMP plan, but not both.

C.36 PAVING: To pave currently Unpaved Roads.

C.37 PERMANENT CROPS: Having an established permanent crop that is not replanted

annually.

C.38 PRECISION FARMING (GPS): Reduce a minimum of one pass through the field per acre by using satellite navigation to calculate position in the field, therefore manage/treat the selective area. It reduces overlap and allows operations to occur during inclement weather conditions and at night thereby generating less PM.

C.39 PRE-HARVEST SOIL PREPARATION: Applying a water or stabilizing material to soil prior to harvest to form a visible crust. It reduces PM emissions at harvest.

C.40 REDUCED PRUNING: Reduce a minimum of one ground operation by reducing the frequency of pruning (e.g. one time per year, or every other year).

C.41 RESTRICTED ACCESS: To restrict or eliminate public access to unpaved private roads with signs or physical obstructions. At each access point, install signs or physical barriers such as gates, fencing, posts, signs, shrubs, trees that block or effectively control access to the area. It reduces vehicle traffic and thus reduces associated fugitive dust.

C.42 RIDGE ROUGHNESS: Establish stabilized ridges by normal tillage and planting equipment as close to perpendicular as practical with the direction of erosive winds (not appropriate for unstable soils such as sands or loamy sands). After establishment, ridges shall be maintained through those periods when wind erosion is expected to occur, or until growing crops provide enough cover to protect the soil from wind erosion. Ridge spacing should be no greater than 4 times the ridge height.

C.43 ROAD MIX: A mixture of tank bottoms from crude oil storage tanks, material from crude oil spills, or other crude-oil-containing soil mixed with aggregates and soils, that are used as a base cover materials for roads, parking lots, berms, tank and well locations, or similar applications.

C.44 SHED PACKING: Reducing a minimum of one pass through the field per acre by packing commodities in a covered or closed area, rather than field-pack. It reduces field traffic, thereby reducing PM emissions.

C.45 SHUTTLE SYSTEM/LARGE CARRIER: Reduce a minimum of one pass through the field per acre by hauling multiple or larger trailers/bins per trip.

C.46 SOIL AMENDMENTS: Organic or chemical materials uniformly applied to the soil for improvement (e.g: gypsum, lime, polyacrylamide).

C.47 SPEED LIMITS: Control speed limits to 15 mph on unpaved roads through worker behavior modifications, signage, or any other necessary means.

C.48 SULFUR REDUCTION OR ELIMINATION: Reduce a minimum of one ground operation by reducing or eliminating sulfur dusting, an organic chemical used to control disease in crop, ornamental and home and gardens.

C.49 SURFACE ROUGHENING: Produce and maintain stable clods or aggregates on the land surface by bedding, rough disking, or tillage that leaves the surface covered by stable clods. Soil clods prevent wind erosion because they resist the forces of the wind and because they shelter other erodible materials. This CMP should be implemented consistent with NRCS Code 609 – Surface Roughening.

C.50 TILLAGE OPERATION: An agricultural operation that mechanically manipulates the soil for the enhancement of crop production. Examples include discing, weeding, or bedding. A pass through the field may be a subset of a tillage operation.

C.51 TRACK-OUT CONTROL: Minimize any and all material that adheres to and agglomerates on all vehicle and equipment from unpaved roads and falls onto a paved public road or the paved shoulder of a paved public road. Install one of the following devices: a grizzly, a gravel pad or a wheelwash system at all intersections of unpaved roads and public roads.

C.52 TRANSGENIC CROPS: Use of GMO or Transgenic crops such as “herbicide-ready” to reduce a minimum of one tillage operation. It reduces the need for tillage or cultivation operations, as well as reduces soil disturbance. It can also reduce the number of chemical applications.

C.53 WATER APPLICATION: Application of water to unpaved roads and traffic areas to create a visibly moist surface.

C.54 WIND BARRIER: Reduce wind erosion by planting or maintaining perennial or annual plants established in rows or narrow strips interspersed throughout a crop field as close to perpendicular as practical with the direction of erosive winds. To be effective, the selected plant(s) must create a stand at least three feet tall, with a porosity of 50%.

D. Requirements for Agricultural Operation Sites:

D.1 All Persons who own or operate an Agricultural Operation Site of forty (40) acres or more in size shall implement in each Agricultural Parcel at least one of the Conservation Management Practices from each of D.1.a through D.1.f. unless they implement the Conservation Tillage CMP. On acres implementing the Conservation Tillage CMP, persons do not need to select additional measures for D.1.a, D.1.b or D.1.e, but do need to implement at least one CMP each from D.1.c, D.1.d and D.1.f. Persons may choose the same CMP for D.1.c and D.1.d since they

apply to different land, but must choose a unique and individual CMP for each of D.1.a, D.1.b, D.1.e and D.1.f (unless using Conservation Tillage CMP) since they apply to the same land.

D.1.a Land preparation and cultivation, CMPs in Section E.1;

D.1.b Harvest activities, CMPs in section E.2;

D.1.c Unpaved Roads, CMPs in Section E.3;

D.1.d Unpaved Traffic Areas, CMPs in Section E.4;

D.1.e Cropland-Other, CMPs in Section E.5; and

D.1.f Windblown Dust Control, CMPs in Section E.6.

D.2 Agricultural unpaved roads with greater than fifty (50) or more vehicle daily trips (VDT), or twenty (20) or more VDT with three (3) or more axle vehicles, must meet the stabilization and opacity requirements in Section E.3.

D.3 Agricultural unpaved equipment or traffic areas with fifty (50) or more VDT, or twenty (20) or more VDT with 3 or more axle vehicles, must meet the stabilization and opacity requirements in Section E.4.

D.4 The owner or operator of an Agricultural Operation Site may implement more than one Conservation Management Practices for one or more of the categories.

D.5 The owner or operator of an Agricultural Operation Site shall ensure that the implementation of each selected Conservation Management Practices does not violate any other local, state, or federal law.

D.6 The owner or operator of an Agricultural Operation Site may develop alternative CMPs. The owner or operator shall submit to the APCD a technical evaluation of the alternative CMPs, demonstrating that the alternative CMP achieves PM-10 emission reductions that are at least equivalent to the most effective CMPs available for the applicable operation (e.g., by eliminated equivalent passes or operations). The APCD will review the technical evaluation, and the alternative CMP must receive approval by the APCD before being included in the CMP Plan.

D.7 The owner or operator shall prepare a CMP Plan for each Agricultural Operation Site. The CMP Plan shall be made available to the APCD upon request. The CMP Plan shall be provided to the APCD within 72 hours of notice to the owner or operator.

E. Conservation Management Practices for Fugitive Dust (PM-10)

E.1 The owner or operator of an Agricultural Operation Site shall implement at least one of the following CMPs in each Agricultural Parcel to reduce PM10 emissions from land preparation and cultivation (CMP Category D.1.a). If the owner or operator selects "Fallow Land" as its CMP, the owner/operator must comply with section E.6 of this rule.

E.1.a Alternative Tilling,
E.1.b Bed/Row Size Spacing,
E.1.c Chemigation/Fertigation,
E.1.d Combined Operations,
E.1.e Conservation Irrigation,
E.1.f Cover Crops,
E.1.g Equipment Changes/Technological Improvements,
E.1.h Fallow Land,
E.1.i Integrated Pest Control,
E.1.j Mulching,
E.1.k Night Farming,
E.1.l Non Tillage /Chemical Tillage,
E.1.m Organic Pesticides,
E.1.n Precision Farming (GPS), or
E.1.o Transgenic Crops

E.2 The owner or operator of an Agricultural Operation Site shall implement at least one of the following CMPs in each Agricultural Parcel to reduce PM10 emissions from harvest activities (CMP Category D.1.b). If the owner or operator selects "Fallow Land" as its CMP, the owner/operator must comply with Section E.6 of this rule.

E.2.a Baling /Large Bales
E.2.b Combined Operations
E.2.c Equipment Changes/Technological Improvements
E.2.d Green Chop
E.2.e Hand Harvesting
E.2.f Fallow Land
E.2.g Night Harvesting
E.2.h No Burning
E.2.i Pre-Harvesting Soil Preparation
E.2.j Shed Packing
E.2.k Shuttle System/Large Carrier

E.3 The owner or operator of an Agricultural Operation Site shall implement at least one of the following CMPs for each unpaved road (CMP Category D.1.c) to reduce

PM10 emissions at all times:

E.3.a Chips/Mulches, Organic Materials, polymers, road oil and sand,
E.3.b Gravel
E.3.c Paving,
E.3.d Restricted access
E.3.e Speed limit
E.3.f Track-out control
E.3.g Water Application
E.3.h Field windbreak

On each day that high traffic accounts for 50 or more vehicle daily trips (VDT), or 20 or more VDT with 3 or more axles, on an unpaved road segment, the owner/operator of an Agricultural Operation Site shall comply with the requirements of a stabilized unpaved road and limit VDE to 20% opacity by implementing or maintaining one or more of the following CMPs:

E.3.i Pave.
E.3.j Apply Chemical Stabilization as directed by product manufacturer to control dust on Unpaved Roads.
E.3.k Apply and maintain Gravel, recrushed/recycled asphalt or other material of low Silt (<5%) content to a depth of three or more inches.
E.3.l Water Application.
E.3.m Permanent road closure.
E.3.n Restrict unauthorized vehicle access.

E.4 The owner or operator of an agricultural operation site shall implement at least one of the following CMPs for each unpaved traffic area (CMP Category D.1.d) to reduce PM10 emissions at all times:

E.4.a Chips/Mulches, Organic Materials, Polymers, Road Oil and Sand,
E.4.b Gravel
E.4.c Paving
E.4.d Restricted Access
E.4.e Speed Limit
E.4.f Track-Out Control
E.4.g Water Application
E.4.h Field windbreak

On each day that high traffic accounts for 50 or more vehicle daily trips (VDT), or 20 or more VDT with 3 or more axles, on an Unpaved Traffic Area larger than one (1) acre, the owner/operator of an Agricultural Operation Site shall comply with the requirements of a stabilized unpaved road and limit VDE to 20% opacity by implementing or maintaining one or more of the following CMPs:

E.4.i Pave.
E.4.j Apply Chemical Stabilization as directed by product manufacturer to control dust on Unpaved Roads.
E.4.k Apply and maintain Gravel, recrushed/recycled asphalt or other material of low Silt (<5%) content to a depth of three or more inches.
E.4.l Water Application.

E.5 The owner or operator of an Agricultural Operation Site shall implement at least one of the following CMPs in each Agricultural Parcel to reduce PM10 emissions from cropland-others (Category D.1.e). If the owner or operator selects "Fallow Land" as its CMP, the owner/operator must comply with Section E.6 of this rule.

E.5.a Alternate Tilling
E.5.b Application Efficiencies
E.5.c Bailing/Large Bales
E.5.d Bulk Materials Control
E.5.e Chemigation/Fertigation
E.5.f Conservation Irrigation
E.5.g Fallow Land
E.5.h Grinding/Chipping/Shredding
E.5.i Integrated Pest Management
E.5.j Irrigation Power Units
E.5.k Mulching
E.5.l Night Farming
E.5.m No Burning
E.5.n Non Tillage/Chemical Tillage
E.5.o Organic Practices
E.5.p Permanent Crops
E.5.q Reduced Pruning
E.5.r Soil Amendments
E.5.s Soil Incorporation
E.5.t Sulfur: Reduction or Elimination of Dusting
E.5.u Surface Roughening
E.5.v Transgenic Crops
E.5.w Wind Barrier

E.6 For windblown dust control (CMP Category D.1.f), the owner or operator of an agricultural operation site shall implement E.6.1. In addition to following E.6.1, if the owner or operator of an Agricultural Operation Site has fields that are in between crops or more permanently fallow, the owner or operator shall implement at least one of the CMPs in E.6.2.

E.6.1 When preparing a field for planting, minimize the time that newly tilled soil

is smooth and dry by leaving the field surface with large clods for as long as possible and bedding and planting the field as soon as possible once it no longer has large clods.

E.6.2 For fields that are in between crops or are permanently fallow, the owner shall implement at least one of the CMPs below:

E.6.2a Cover Crop
E.6.2b Conservation Tillage
E.6.2c Crop Residue Management
E.6.2d Cross Wind Stripcropping
E.6.2e Field Windbreaks
E.6.2f Ridge Roughness
E.6.2g Surface Roughening
E.6.2h Wind Barrier

F. CMP Plan Preparation

An owner or operator shall prepare a CMP Plan for each Agricultural Operation Site. An owner or operator must maintain a CMP Plan that corresponds to the current crops being grown in the field and the corresponding CMPs for those crops. Each CMP Plan shall include, but is not limited to, the following information:

F.1 The name, business address, and telephone number of the owner or operator responsible for the preparation and implementation of the CMP Plan.

F.2 The signature of the owner or operator and the date that the CPM Plan was signed.

F.3 The location of the Agricultural Operation Site: cross roads; canal and gate number.

F.4 The crop grown at each location covered by the CMP Plan, total acreage for each crop, the length (miles) of unpaved roads, and the total area (acres or square feet) of the unpaved equipment and traffic areas to be covered by the CMP Plan

F.5 The CMPs being implemented for each crop, unpaved road, unpaved equipment and traffic area, and windblown dust control. The CMPs implemented should be described to verify that implementation is consistent with the CMP definitions in this rule.

F.6 Other relevant information as determined by the APCD.

G. Violations

Failure to comply with any provisions of this rule shall constitute a violation of Regulation VIII. Failure to comply with the provisions of a CMP Plan shall also constitute a violation of Regulation VIII.

H. Record of Control Implementation

Any Person subject to the requirements of this rule shall maintain a copy of the CMP Plan and any supporting documentation necessary to confirm implementation of the CMPs. An owner or operator implementing alterative CMPs shall maintain a copy of technical evaluation for alternative CMPs and documentation of APCD approval of alternative CMPs. Records shall be maintained for two years after the date of each entry and shall be provided to the APCD upon request.