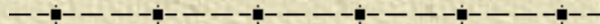




*Eastern Kern Air
Pollution Control District
Rule Development Public Workshop*

September 16, 2014

Mojave Veteran's Center

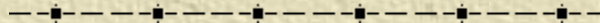


Today's Agenda

- ✦ Rule 402, Fugitive Dust – Amended
 - *Questions/Comments concerning Rule 402*
- ✦ Rule 402.2, Agricultural Operations – Draft Rule
 - *Questions/Comments concerning Rule 402.2*
- ✦ Rule 301, Permit Fees – Amended
 - *Questions/Comments concerning Rule 301*
- ✦ Rule 302, Permit Fee Schedules – Amended
 - *Questions/Comments concerning Rule 302*
- ✦ Rule 303, Miscellaneous Fees – Amended
 - *Questions/Comments concerning Rule 303*

Rule 402, Fugitive Dust

Amended



Rule 402 Overview

Rule 402 was originally adopted November 29, 1993 and last amended November 3, 2004.

Fugitive dust contains varying sizes of respirable particulate matter including those with an aerodynamic diameter of 10 micrometers or less (PM₁₀).

The purpose of Rule 402 is to prevent, reduce, and mitigate ambient concentrations of anthropogenic fugitive dust emissions to an amount sufficient to maintain the National Ambient Air Quality Standards (NAAQS).

Applicability

Provisions of amended Rule 402 are applicable to specified outdoor fugitive dust producing activities, which include:

Handling, storage, and transport of bulk storage piles, off-field agricultural sources, construction, demolition, excavation, extraction, and other earthmoving activities, including, but not limited to, land clearing, grubbing, scraping, on-site travel including travel on access roads to and from the job site, and any other anthropogenic condition resulting in wind erosion.

Health Effects

Numerous scientific studies have linked both long and short-term particle pollution exposure to a variety of health problems.

People with heart or lung diseases, children, and older adults are the most likely to be affected by particle pollution exposure. However, healthy people can experience symptoms too.

Particle size is directly related to the potential for causing health problems. Particles less than 10 micrometers in diameter pose the greatest problems, because they can get deep into your lungs.

Health Effects (continued)

Long-term exposures can cause reduced lung function, chronic bronchitis, and even premature death.

Short-term exposure can aggravate lung disease, cause asthma attacks and acute bronchitis, and increase susceptibility to respiratory infections.

Requirements

A person shall not cause or allow fugitive dust emissions from any active operation to remain visible in the atmosphere beyond the property line of the emission source.

An owner/operator of any active operation subject to Rule 402 shall implement one or more fugitive dust emission control strategy listed in Table 1, Reasonably Available Control Measures (RACM) or;

Table 2, Bulk Material Control Measures (BMCM) to limit visible dust emissions (VDE) to no more than 20% opacity or meet conditions for a stabilized surface.

Reasonably Available Control Measures

Source Category	Control Measure
Unpaved Road:	Control Vehicular Speed (signage/enforcement)
	Improve Road Surface (leveling/grading)
	Use Water Trucks to Keep Soil Damp
	Apply Dust Suppressant (palliatives/gravel/ect.)
Construction, Demolition, and Earth-Moving:	Minimize/Limit Cut-Fill Grading
	Phase Work to Reduce Disturbed Surface Area
	Use Wind Breaks (screens/fencing/barriers/burms)
	Compact Disturbed Surfaces
	Limit Equipment/Vehicular Access
	Use Water Trucks to Keep Soil Damp
	Apply Dust Suppressant (palliative/gravel/ect.)
Open Storage Pile:	Use Enclosures Around Storage Piles
	Keep Pile Damp
	Apply Dust Suppressant (palliative/gravel/ect.)
	Cover with Hydro-mulch or Woodchips
Disturbed Surface Area Stabilization During Inactivity:	Compact Disturbed Surfaces
	Restrict Equipment/Vehicular Access
	Use Wind Breaks (screens/fencing/barriers/burms)
	Apply Dust Suppressant (palliative/gravel/ect.)
	Apply Hydro-mulch or Woodchips
	Re-vegetate

Bulk Materials

No person shall perform any outdoor handling, storage, or transport of bulk materials unless the appropriate control measures, as listed in Table 2 , Bulk Material Control Measures (BMCM) are sufficiently implemented in order to limit VDE to no more than 20% opacity.

Conditions of a Stabilized Surface must also be met.

Stabilized Surface

Stabilized surface is defined as: Any disturbed surface area or open bulk material 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:

- Has visible crust;
- Has threshold friction velocity (TFV) for disturbed surface areas corrected for non-erodible elements of 100 centimeters per second or greater;
- Has flat vegetative cover of at least 50% 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;

Stabilized Surface (continued)

- Has standing vegetative cover of at least 30% that is attached or rooted vegetation with a predominant vertical orientation;
- Has standing vegetative cover that is attached or rooted vegetation with a predominant vertical orientation that is at least 10% and where the TFV is at least 43 centimeters per second when corrected for non-erodible elements; or
- Has surface that is greater than or equal to 10% of non-erodible elements such as rocks, stones, or hard-packed clumps of soil.

Bulk Material Control Measures

Category	Control Measure
Handling	Apply water or chemical/organic stabilizers/suppressants sufficient to limit VDE to 20% opacity or;
	Construct and maintain wind barriers sufficient to limit VDE to 20% opacity and with less than 50% porosity. If utilizing fences or wind barriers, also apply water or chemical/organic stabilizers/suppressants.
Storage	When storing bulk materials, comply with the conditions for a stabilized surface as defined in this Rule; or
	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
	Construct and maintain wind barriers sufficient to limit VDE to 20% opacity and with less than 50% porosity. If utilizing fences or wind barriers, apply water or chemical/organic stabilizers/suppressants to limit VDE to 20% opacity or;
	Utilize a 3-sided structure with a height at least equal to the height of the storage pile and with less than 50% porosity.

Bulk Material Control Measures

Category	Control Measure
On-Site Transporting	Limit vehicular speed while traveling on the work site sufficient to limit VDE to 20% opacity; or
	Load all haul trucks such that the freeboard is not less than six (6) inches when material is transported across any paved public access road sufficient to limit VDE to 20% opacity, or
	Apply water to the top of the load sufficient to limit VDE to 20% opacity, or
	Cover haul trucks with a tarp or other suitable cover.
Off-Site Transporting	Clean interior of the cargo compartment or cover cargo compartment before empty truck leaves the site; and
	Prevent spillage or loss of bulk material from holes or other openings in cargo compartment's floor, sides, and/or tailgate; and
	Load all haul trucks such that the freeboard is not less than six (6) inches when material is transported on any paved public access road, and apply water to top of load sufficient to limit VDE to 20% opacity; or cover haul trucks with a tarp or other suitable cover.
Outdoor Chute & Conveyor	Fully enclose the chute/conveyor; or
	Operate water spray equipment that sufficiently wets materials to limit VDE to 20% opacity; or
	Wash separated or screened materials to remove conveyed materials having an aerodynamic diameter of 10 microns or less sufficient to limit VDE to 20% opacity.

Earthmoving Activities

Earthmoving activities include but are not limited to: Construction, demolition, excavation, extraction, land clearing, grubbing, scraping, on-site travel, and travel on access roads to and from site. This section also applies to the construction of new landfill disposal sites or modification to existing landfill disposal sites prior to commencement of normal landfill operations.

No person shall perform or authorize any earthmoving activity subject to requirements of Rule 402 unless the appropriate fugitive dust emission control measure(s) are implemented to limit VDE to no more than 20% opacity.

Fugitive Dust Emission Control Plan

An owner/operator of a Large Operation is required to submit a Fugitive Dust Emission Control Plan to the APCO prior to the start of any earthmoving activity. Project commencement shall not begin until APCO has approved or conditionally approved the Plan.

Large Operation is defined as: Any construction activity on any site involving 10 or more contiguous acres of disturbed surface area;

Any earthmoving activity exceeding a daily volume of 10,000 cubic yards; or

Relocating more than 2,500 cubic yards, per day, of bulk materials at least three days per year.

Carryout and Trackout

Owner/operator shall remove all visible carryout/trackout at the end of each workday by:

- Manually sweeping and picking-up;
- Operating a rotary brush or broom accompanied or preceded by sufficient wetting to limit VDE to at least 20% opacity; or
- Operating a PM₁₀-efficient street sweeper that has a pick-up efficiency of at least 80 percent.
- Flushing with water, if curbs or gutters are not present, and where the use of water will not result as a source of trackout material, or have adverse impacts on storm water drainage systems, or violate any National Pollutant Discharge Elimination System permit program.

PM₁₀ Air Monitoring

Any large operation causing downwind PM₁₀ ambient concentrations to increase more than 50 micrograms per cubic meter above upwind concentrations or continually causing a public nuisance may be required to conduct on-site PM₁₀ monitoring.

Exemptions

The exemption for on-field agricultural and emergency activities have been revised.

Exemptions for off-field agricultural, carryout and trackout caused by an agricultural source, and various provisions for bulk materials have been added.

Two exemptions pertaining to contractors have been deleted.

The rest of the exemptions section has minor formatting changes but remains the same.

See Staff Report for all changes.

Definitions

To enhance clarity and enforcement, Section III of the proposed revision provides an extensive list of definitions.

- ✦ 33 New definitions have been added.
- ✦ 7 Existing definitions have been revised.

See Staff Report for all definitions.

Impacts associated with amended Rule 402

- ✦ **Economic Impact:** District is required to analyze cost effectiveness of new or amended rules that implement Best Available Retrofit Control Technology (BARCT) or all feasible measures. Proposed amendments to Rule 402 do not employ BARCT and therefore not subject to the cost effectiveness analysis mandate.
- ✦ **Socioeconomic Impact:** CH & SC Section 40728.5 exempts districts with a population of less than 500,000 persons from the requirement to assess the socioeconomic impacts of proposed rules. Eastern Kern County population is below 500,000 persons.

Impacts associated with amended Rule 402

- ✦ **Environmental Impact:** Both the California Environmental Quality Act (CEQA) and ARB policy require an evaluation of the potential adverse environmental impacts of proposed projects. The intent of Amended Rule 402 is to protect public health by reducing the public's exposure to potentially harmful PM₁₀ emissions. An additional consideration is the impact that the proposed rule may have on the environment. District has determined that no significant adverse environmental impacts should occur as a result of adopting Amended Rule 402.
- ✦ Pursuant to the Section 15061, Subsections (2) & (3) of the CEQA Guidelines, staff will prepared and file a Notice of Exemption for this project upon adoption.

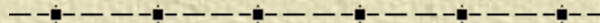
Rule Approval Process

The District will be accepting written comments and concerns from persons interested in Rule 402 for a period of 30 days following the September 16, 2014 workshop.

District anticipates that Rule 402 will be considered for adoption by the District's Board at the November 2014 Board Hearing.

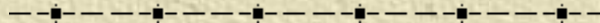


Questions?



Rule 402.2, Agricultural Sources

Draft Rule



Reasons for Rule 402.2

- ✦ Reduce Fugitive PM₁₀ Emissions from Ag Operations.
- ✦ Ag Operations in District are growing.
- ✦ Voluntary implementation of Best Available Control Measures (BACM) is not being used by all Ag Operations.

Background

District has identified ag operations as a significant source of PM₁₀ emissions and a source where PM₁₀ emissions can be reduced.

Proposed Rule 402.2 is part of the District's particulate matter attainment strategy. Rule 402.2 will implement BACM on existing ag operations to achieve PM₁₀ reductions and minimize/limit future PM₁₀ emissions caused by new ag operations.

Purpose & Applicability

- The purpose of Rule 402.2 is to limit fugitive dust emissions from agricultural operations that exceed 10 acres.
- The Rule applies to commercial agricultural operations.
- Agricultural Operation is defined as:
- Any activity or portion of land associated with the commercial growing of crops or the raising of fowl or animals.

Other District Ag Rules

There are 35 air pollution control/management districts in California. Of those, 8 currently have adopted Agricultural Operations Rules.

In order to promote regulatory uniformity throughout Kern County, proposed Draft Rule 402.2 is based on San Joaquin Air Pollution Control District's (SJVAPCD) Rule 4550, Conservation Management Practices, Re-adopted August 19, 2004.

Requirements

- Effective 6 months after adoption of the Rule, an owner/operator must implement applicable Conservation Management Practice(s) (CMPs).
- This 6-month compliance schedule will allow time for rule dissemination and for Staff to review and approve CMPs.
- Staff believes there will be minimal resistance, because SJVAPCD has implemented CMPs since 2004.

Administrative Requirements

- Owner/operator shall select at least 1 applicable CMP from the CMP list, prepare a CMP Application for each agricultural operation site, and submit application to the District for approval.
- The list of CMPs is included as a District policy instead of part of the District Rule.
- The policy will be approved by the District's Board of Directors prior to use.
- Owner/operator may identify or develop a new CMP not on the CMP list to be used for compliance upon obtaining APCO's approval.

CMP Application Submission

Owner/operator shall submit a CMP Application to APCO:

Within 210-days of Rule adoption for an existing ag operation.

Within 180-days for a new ag operation or parcel acquired after Rule adoption.

Within 60 days of any modification (operational, administrative, or other) that necessitates revision of the CMP Plan.

- Modification includes, but is not limited to:
- Administrative changes to any information;
- Implementation of a CMP other than the CMP listed in a CMP Plan;
- Change of crop type or AFO type on an agricultural parcel; or
- Any other changes as determined by the APCO.

CMPs

The following four CMP categories are the best suited for Ag operations located within Eastern Kern:

CMP Category	Control Efficiency (percentage)
Land Preparation	75
Harvesting	65
Unpaved Roads	80
Unpaved Equipment and Traffic areas	85

- Table shows CMP category and corresponding control efficiency.
- Determination has been made based on District's emissions inventory.

PM₁₀ Emissions Reductions

The District estimates the following PM₁₀ emissions reductions will be accomplished as a result of adopting and implementing Rule 402.2.

CMP Category	PM-10 Emission (tons/day)	Control Efficiency (percentage)	Emission Reductions (tons/day)
Land Preparation	0.90	75	0.675
Harvesting	0.16	65	0.104
Unpaved Roads	0.31	80	0.248
Unpaved Equipment and Traffic areas	4.4	85	3.74
Totals:	5.77	n/a	4.77

Exemptions

Except for recordkeeping requirements, this rule shall not apply to:

- Ag operation where total acreage of all parcels is less than 10 acres.
- Woodland & wasteland not under cultivation or used for pasture.
- Land placed in the Conservation Reserve Program meeting the definition and criteria set by the NRCS.

Ag operation parcel used for the purpose of:

- Propagating young trees, shrubs, or other miscellaneous crops for transplanting;
- Providing grazing rangeland or pasture; or
- Forestry, including but not limited to timber harvest operations, forest management burning, or forest protection practices.

Animal Feeding Operations

Except for recordkeeping requirements, this rule shall not apply to:

- AFO of mature dairy cows with less than 500 mature dairy cows.
- AFO of cattle, other than mature dairy cows or veal calves, with less than 190 cattle. Cattle includes: heifers, steers, bulls and cow/calf pairs.
- AFO of turkeys with less than 55,000 turkeys.
- AFO of chickens, other than laying hens, with less than 125,000 chickens.
- AFO of laying hens with less than 82,000 laying hens.
- AFO other than an AFO for mature dairy cows, cattle, turkeys, chickens, or laying hens.

Rule Consistency Analysis

Pursuant to Section 40727.2 of the California Health and Safety Code, prior to adopting, amending, or repealing a rule or regulation, the District is required to perform a written analysis that identifies and compares the air pollution control elements of Draft Rule 402.2 with the corresponding elements of existing or proposed District and EPA rules, regulations, and guidelines that apply to the same source category.

Analyzed rule elements include: Emission limits and control efficiency, operating parameters and work practices, monitoring and testing, and recordkeeping and reporting requirements.

State and Federal Regulations

Currently there are no State or Federal regulations that specifically address anthropological dust emissions from agricultural facilities. However, there are State regulations that address PM10 emissions from agricultural engines and agricultural burning operations.

Farming in the desert is a regional phenomenon as opposed to a statewide issue and expected to grow in the near future due to an increase in desert crops, such as pistachios.

Currently there are no EPA regulations (Code of Federal Regulations {CFR} Title 40) that specifically address anthropological dust emissions from agricultural facilities.

Cost Effectiveness Analysis

- Cost Effectiveness is: Cost of implementing a regulation in relation to the amount of emissions reductions generated by that rule, expressed in dollars per ton of reduction (\$/ton).
- Cost can include equipment, engineering, design, additional labor or maintenance. Cost effectiveness should also include any monetary savings generated by rule implementation.
- Cost effectiveness of implementing CMPs depends largely on the current farming/operating system. Certain CMPs may be easier or more readily available than others. CMP selection will help determine cost effectiveness.

Impacts associated with Rule 402.2

Socioeconomic Impact: CH & SC Section 40728.5 exempts districts with a population of less than 500,000 persons from the requirement to assess the socioeconomic impacts of proposed rules. Eastern Kern County population is below 500,000 persons.

Environmental Impact: Both the California Environmental Quality Act (CEQA) and ARB policy require an evaluation of the potential adverse environmental impacts of proposed projects. The intent of Draft Rule 402.2 is to protect public health by reducing the public's exposure to potentially harmful PM₁₀ emissions. An additional consideration is the impact that the proposed rule may have on the environment. District has determined that no significant adverse environmental impacts should occur as a result of adopting Draft Rule 402.2.

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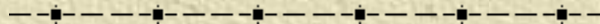
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Questions?



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