Dust Control In The Coachella Valley







SOUTH COAST
AIR QUALITY MANAGEMENT DISTRICT

COACHELLA VALLEY
ASSOCIATION OF GOVERNMENTS

LOCAL GOVERNMENTS

Working
Together For
Healthful Air

Dust Control in the Coachella Valley



Key Terms



Regulatory Background



MOU



Ordinance Requirements



CV Dust Control Handbook



South Coast AQMD Regulations

Rule 403, 403.1, 401, 402, 201, 203, & PERP

Key Terms

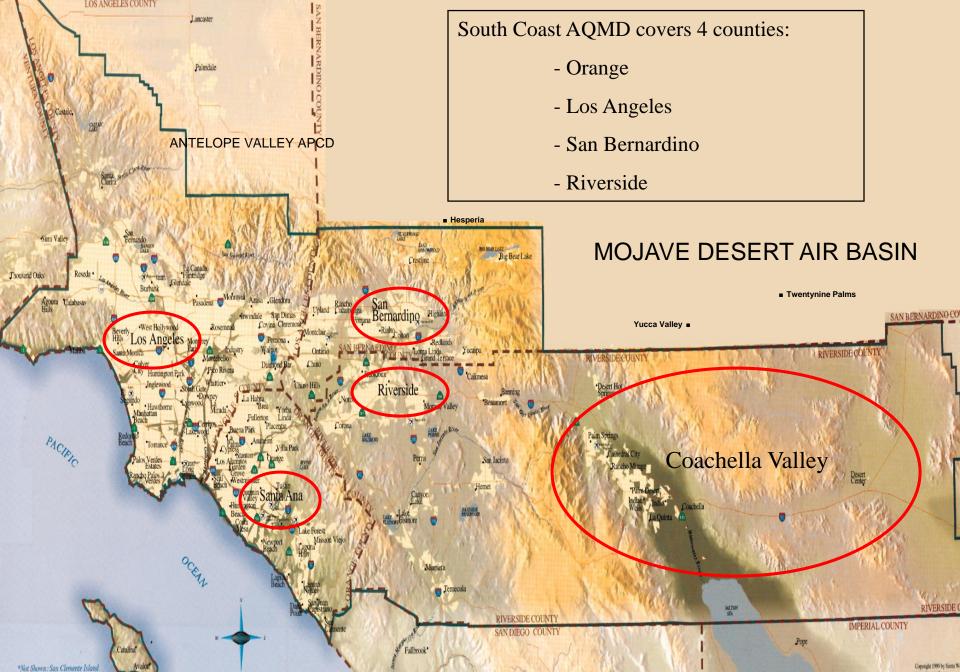
- Fugitive Dust Any solid particulate matter that becomes airborne, other than that emitted from an exhaust stack, directly or indirectly as a result of the activities of any person
- Disturbed Surface Area any portion of the earth/soil that has been unstabilized or disturbed from it's natural state increasing the potential for fugitive dust emissions.
- **PM10** Particulate matter < 10 microns
- **SIP** State Implementation Plan, an enforceable plan developed at the state and local level that explains how the area will comply with the NAAQS according to the Clean Air Act.
- **Opacity** A way to describe the density of a plume or smoke; degree to which visibility of a background viewed through the plume is obscured.
- MOU Memorandum of Understanding, agreement between city and county governments and the South Coast AQMD.
- CVBACM Coachella Valley Best Available Control Methods to minimize dust emissions. (See CV Dust Control Handbook)

Regulatory Background

- Coachella Valley Air Basin failed to meet the required PM10 NAAQS (National Ambient Air Quality Standards) by 2001 (50 μg/m³ –one year avg or 150 μg/m³ -24 hr avg).
- South Coast AQMD Prepared and adopted 2002 CVSIP (Coachella Valley State Implementation Plan) to request one-time EPA 5 year extension.
- CVSIP requires implementation of CVBACM for all fugitive dust sources to qualify for attainment date extension.
- May 6, 2003, final CVSIP approved.
- October 2009 South Coast AQMD requests redesignation to Attainment status for Coachella Valley PM10 NAAQS.
- March 2010 CARB approved redesignation request, EPA approval still pending as of January 2011.



In the Coachella Valley, PM10 is primarily comprised of windblown dust from land development activities, agricultural tilling, unpaved roads and dirt on paved roadways that is suspended in the air when vehicles drive over it.



The ordinance requirements apply to all dust emission sources within the Coachella Valley.

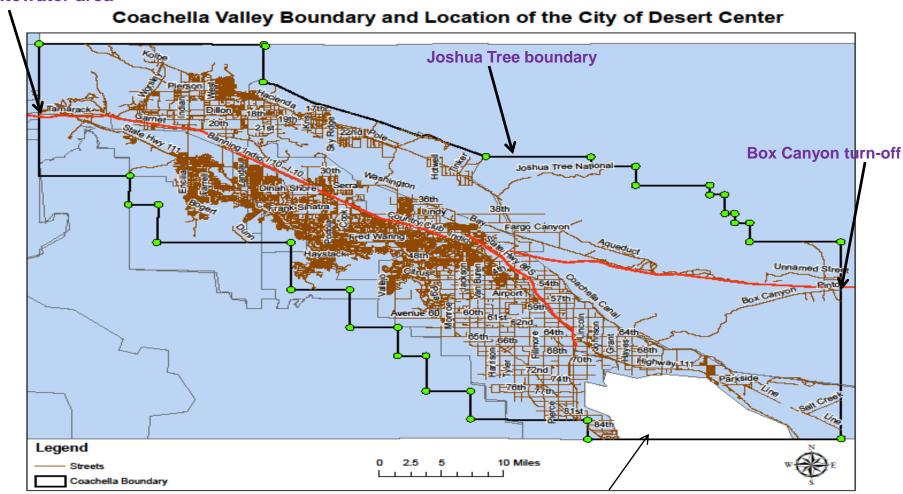
Applicability of Dust Rules

Rule 403 applies to all dust emission sources within the South Coast AQMD jurisdiction.

Rule 403.1 applies to all dust emission sources within the Coachella Valley.

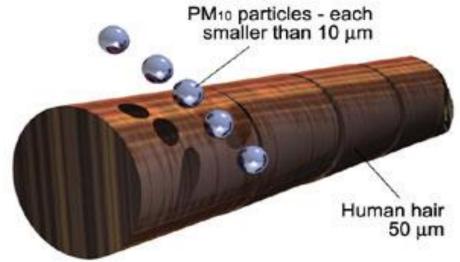
Definition of Coachella Valley

Whitewater area

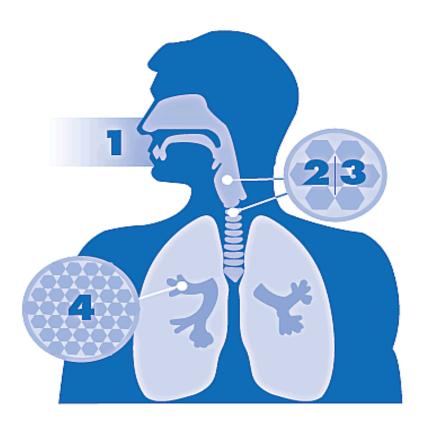


What is PM10 and its Health Effects?

- Fine particulate matter less than 10 microns in diameter (has capacity to travel deep into lungs)
 - -1/5 the diameter of a human hair
- Associated with increased rates of illness and death
 - -Small particles can by-pass the body's protective measures and lodge deep in the lungs.
- High-risk groups:
 - Children
 - Elderly
 - People with respiratory disease



How Particulate Matter Enters Our Body

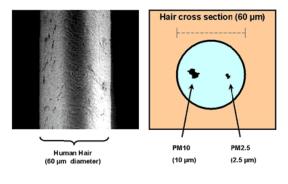


- Particulate matter enters our respiratory (lung) system through the nose and throat.
- 2 | 3 The larger particulate matter (PM10) is eliminated through coughing, sneezing and swallowing.
 - PM2.5 can penetrate deep into the lungs. It can travel all the way to the alveoli, causing lung and heart problems, and delivering harmful chemicals to the blood system.

The smaller the particulate matter the farther it can go into your lungs and cause problems...

We cannot see particulate matter...but can feel it when breathing it in...

HOW SMALL IS PM?



Local Dust Control is Essential...

- To reduce health risks
 - Sensitive receptors
 - Children
 - Elderly people
 - People with respiratory ailments
- To reduce economic risks
 - Loss of certain federal funding
 - Possible Federal EPA intervention including more strict regulations
 - Maricopa County, Arizona
 - Clark County, Nevada









Dust Control in the Coachella Valley



























Local Jurisdictions' Obligations:

- ☐ Take lead responsibility for enforcing both local ordinances and approved Fugitive Dust Plans
- ☐ Issue an approved Dust Control Plan only to an operator who produces a signed "Certificate of Completion", issued by the South Coast AQMD
- Require a bond, cash Certificate of Deposit, or equivalent form of two thousand dollars (\$2,000.00) per acre for projects >5,000 ft² (as a means of monetary ability to stabilize bankrupt projects)

Memorandum of Understanding

Memorandum of Understanding

Local Jurisdictions' Obligations:

□ Conduct random, unannounced, inspections at construction sites

- Develop and maintain record-keeping logs for all compliance actions taken such as site visits, notices issued, penalties, etc.
- ☐ Discontinue verbal warnings

Memorandum of Understanding

South Coast AQMD's Obligations:



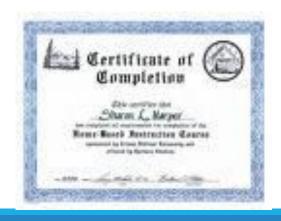
- Approve and issue Fugitive Dust Control Plans for operations that do not require a local jurisdiction's grading permit or building permit
 - (such as, aggregate producers, landfills, schools, water districts, California Department of Transportation, and flood control maintenance activities)



Memorandum of Understanding







South Coast AQMD's Obligations:

- Continue to provide outreach and training
- ► Issue Certificates of Completion
- ➤ Develop and implement an abatement and enforcement policy for repeat violators
- Assign an inspector to conduct inspections exclusively in the Coachella Valley

Dust Control in the Coachella Valley



Ordinance

Model Ordinance	Key Elements	Requirements
Section		
410-Work Practices	For any dust generating activities, the dust standards must be met: < 20% opacity < 100 foot plume Cannot cross property line 	- Use CVBACM - At Minimum, water application system used for sites >1 acre w/dust generating activity

Model Ordinance Section	Key Elements	Requirements
420- Construction & Demolition Activities	Any operator obtaining building or grading permits for >5,000 sq. ft. of disturbed surface area must prepare a fugitive dust control plan	 Copy of <u>approved</u> plan must be kept on site must be obtained/approved <u>before</u> earth moving begins
	Short-term stabilization used during non-working hours	- water application, damp soil, or chemical stabilizers
	Long-term stabilization required within 10 days of when work ceases for 30 or more days	- 75% revegetation cover, watering w/access restriction, or chemical stabilizers
	Demolition activities must comply w/Rule 1403	-Asbestos notification if present



Short-term Stabilization



Long-term Stabilization





Model Ordinance Section	Key Elements	Requirements
420- Construction & Demolition Activities	Track out that extends > 25 cumulative ft. must be removed within 1 hour and all track-out must be removed at the conclusion of workday.	- AQMD requires no track out >25 cumulative ft. (stricter rule than ordinance)
	Track out prevention system must be installed for projects >5 acres or importing/exporting >100 yds ³ /day at every site egress (dirt to pavement)	- Must use at least one system that meets the specs, but more may be necessary to control track out (Ex. washed gravel pad, wheel shaker, wheel washing system, or paved surface)

Problem...?

BEFORE







AFTER



Examples of track out control



Common Reasons for Track-out

Lack of maintenance on track-out control devices (caked w/mud)

Track-out control devices not installed at site egress being used



Track-out Problems





Track-out Problems





Model Ordinance Section	Key Elements	Requirements
420- Construction & Demolition Activities	Approved signs must be installed if a PM10 plan is required before any earth movement is begun.	-Signs must meet specifications (see page 86 in yellow handbook)
	Environmental Observer required for projects ≥ 50 acres, and must be on site or available on site within 30 minutes of initial contact	-Must be hired by property owner/developer and -Must have dust control as primary duty and -Must have completed SCAQMD CV dust class -Is identified in the dust plan and on signage as responsible for dust control 24/7

Model Ordinance Section	Key Elements	Requirements
420- Construction & Demolition Activities	No operator required to submit a dust control plan, shall cause or allow dust emissions to exceed the standards	-Standards that should not be exceeded: - 20% opacity - 100 ft. plume - cross property line
	For high wind (>25 mph) exemption to meet standards, must meet certain conditions	-All CVBACM dust plan requirements must be met -Better CVBACM could not have avoided exceedance -All appropriate records are kept (420.12 thru 420.15) -High wind speeds are monitored and documented





Examples of anemometers to measure wind speeds





Are any of these <u>not</u> an exceedance of the Standards?





Model Ordinance Section	Key Elements	Requirements
420- Construction & Demolition Activities Reporting/Recordkeeping	Before Construction Begins: -Operator of a project ≥ 10 acres shall submit copies of approved dust control plan and notify South Coast AQMD	 Submit 2 copies of approved dust plan within 10 days of approval Notify local jurisdiction & South Coast AQMD 24 hours prior to starting work (Project Initiation form on p. 80 in yellow handbook)

Model Ordinance Section	Key Elements	Requirements
420- Construction & Demolition Activities Reporting/Recordkeeping	During Construction: -Any operator w/earth- moving operations shall complete and keep copies of daily self- inspections records	-Maintained for 3 years
	-Any operator utilizing chemical dust suppressants	-Maintain records of type, vendor, method applied, frequency, concentration, date applied kept for 3 years

Model Ordinance Section	Key Elements	Requirements
420- Construction & Demolition Activities	After construction ceases: South Coast AQMD and local jurisdiction shall be notified within 10 days of project completion	-Project completion form (See p.81 in yellow handbook)

Model Ordinance Section	Key Elements	Requirements
430 Disturbed Vacant lands/weed abatement activities	Restrict access for surfaces >5,000 ft ²	-Within 30 days of receiving notice by local jurisdiction fencing or other physical barriers must be installed as permitted
	Long-term stabilization may be required	-Local jurisdiction may require chemical suppressants or vegetative stabilization on unstabilized vacant land
	Weed abatement on sites >5,000 ft ²	-Water first, then stabilize -Weed abatement should not mean grading or disking of the soil surface -Dust emission standards apply

Examples of fencing/physical barriers









Model Ordinance Section	Key Elements	Requirements
430- Disturbed Vacant lands/weed abatement activities	No person responsible for vacant lands/weed abatement of vacant lands shall cause or allow exceedance of the standards and shall maintain either:	Standards: - 20% opacity - 100 ft plume - Crossing property line
	-Stabilized surface, or -Threshold friction velocity for disturbed surfaces	-Test methods available in Dust Control Handbook

Model Ordinance Section	Key Elements	Requirements
430- Disturbed Vacant lands/weed abatement activities	Ownership (contact info) and location of vacant lands shall be submitted to local jurisdiction	-Provide to city or county
	Records of dust mitigation shall be complied and maintained	-Records maintained for 3 years

Model Ordinance Section	Key Elements	Requirements
440- Unpaved roads (public or private)	Owners of unpaved roads with 20 to 150 vehicles of average daily traffic (ADT)	-Reduce speeds to ≤15 mph (signage or speed control devices)
	Owners of ≤6 miles of unpaved roads with 150 ADT Owners of >6 miles of unpaved roads with 150 ADT	-Shall pave or stabilize according to schedule in ordinance (depends upon city/county of activity) (p.17 in yellow handbook)
		-At least 2 miles paved or 4 miles stabilized with chemical dust suppressant (p.17 in yellow handbook)

Model Ordinance Section	Key Elements	Requirements
440-Unpaved roads (public or private)	An owner of any unpaved road shall not allow dust emissions according to the standards and shall comply with the silt requirements	Standards: -20% opacity -100 ft. plume -Crossing property lines
	Location & ADT estimates must be submitted to the local jurisdiction	-These will be required as part of the fugitive dust plan -Otherwise sent in separately when changes occur

Model Ordinance Section	Key Elements	Requirements
450- Unpaved parking lots	New Parking lots are required to be constructed using one of the following:	paved surfacechemical stabilizersgravel base put down
	Owners of temporary parking lots (used <24 days/year) are required to apply and maintain stabilizers	 When 40 or more vehicles are expected to use lot 24 hours prior to use. When disturbed surface area >5,000 sq. Ft. must stabilize according to vacant lot requirements.

Model Ordinance Section	Key Elements	Requirements
450- Unpaved parking lots	An operator of any public or private unpaved parking lot shall not allow dust emissions beyond the standards	Standards: - 20% opacity - 100 ft plume - Comply with silt requirements (silt loading < or = 0.33 oz/sq. Ft or silt content not >8%)

Model Ordinance Section	Key Elements	Requirements
450- Unpaved parking lots	Provide to the South Coast AQMD and Jurisdiction	Standards: -Location -Lot size (sq. ft.) -ADT -Maintain records for 3 years

Model Ordinance Section	Key Elements	Requirements
460- Public or Private Paved Roads	Any owner of paved roads	Shall comply with the standards and the ordinance (See p. 19)
	Erosion caused road deposits > 2500 ft ² shall be removed	Within 24 hours or resumption of traffic (when previously closed)

Model Ordinance Section	Key Elements	Requirements
500- Administrative Requirements	Anybody preparing a fugitive dust plan	Must complete the South Coast AQMD CV Dust Class and maintain certification
	At least one person from each contractor and subcontractor responsible for earth movement	Must complete the South Coast AQMD CV Dust Class and maintain certification

Model Ordinance Section	Key Elements	Requirements
500- Administrative Requirements	All records per 420	Must be kept on site and provided immediately upon request
	All records per 430 through 460	Must be provided within 24 hours of written request

Model Ordinance Section	Key Elements	Requirements
600- Exemptions	Provisions of this ordinance shall not apply to:	-Agricultural operations - Any dust generating activity in conflict with federal or state Endangered Species Act (as determined in writing by federal or state agency) -Actions required for emergency operations declared by the city or county
	Provisions of section 420.8 (dust signage installation) shall not apply to:	- Any project lasting <2 weeks w/long-term stabilization - line projects (pipelines, cable access lines, etc.) (South Coast AQMD rule 403.1 requires signage)

Model Ordinance Section	Key Elements	Requirements
700- Compliance	Failure to comply with approved fugitive dust control plan	Will result in a violation of the ordinance and is subject to a fine
	Any person who violates this ordinance one or two times in a year	Will be guilty of an infraction
	Three or more violations in a year	Will be guilty of a misdemeanor South Coast AQMD violations start at the misdemeanor level

CV Dust Control Handbook

The Coachella Valley Dust Control Ordinances Require:

- At least one of the Coachella Valley Best Available Control Measures (CV BACM) is required to be implemented for each fugitive dust source category
- CV BACM must be implemented such that the applicable performance standards (e.g., visible emissions not to exceed 100 feet or 20 % opacity, or cross any property line, etc.) are met
- Sites w/greater than 10 acres disturbed surface area must submit copy of approved dust plan to the South Coast AQMD, and submit project initiation and project completion forms to both local jurisdiction & South Coast AQMD.

Source Category	Control	Measure	Guidance
Staging areas	13-1 13-2	Stabilize staging areas during use; and Stabilize staging area soils at project completion.	Limit size of staging areas Limit vehicle speeds to 15 mph Limit number and size of staging area entrances/exits
Stockpiles/ Bulk Material Handling	14-1 14-2 14-3 14-4	Stabilized stockpiled materials; or Install and maintain wind barriers with not more than 50% porosity on three sides of the pile, such that the barrier is equal to or greater than the pile height. Stockpiles within 100 yards of occupied building must not be greater than eight feet in height; or Stockpiles greater than eight feet in height and not covered must have a road bladed to the top to allow water truck access or must have an operational water irrigation system that is capable of complete stockpile coverage.	Add or remove material from the downwind portion of the storage pile Maintain storage piles to avoid steep sides or faces

Coachella Valley Best Available Control Measures

Fugitive Dust Control Plan Guidance

>5,000 ft² and <10 acres of disturbed surface area

- Fugitive Dust Control Plan Application (Form A) –pg. 46
- Fugitive Dust Control Plan (form DCP)
- Owner Designee (form OD)- only for plans prepared/implemented by someone other than property owner, developer or contractor. –pg. 50



	B	re Dust Control Plan	
	<u> </u>	rea DCP, Page 1 of 5)	
Project Name:			
Permit Number (if a	pplicable):		
Owner Name:			
Anticipated Start Di	ate:Anticipated	Completion Date:	
		(e.g., # of watering trucks during phase	
	Indica	ne N/A if not applicable	
Source Category	Indica	ne N/A if not applicable	Site Construction
Source Category Backfiling	Indice Pro	ject Phases Fuith Griding	Site Construction
	Indice Pro	ject Phases Fuith Griding	Site Construction
Backfiling Clearing and	Indice Pro	ject Phases Fuith Griding	

	Fugitive Dust Control Plan Application Form (Form A - Page 1 of 6)
Please print in ish ar type processed. If an item is a	 Blank spaces must be completed for the application to be at applicable, please outer N.C.
1. Ferm Properer: Proper	ry Owner Developer Prime Contractor Other * "H'Ohne, small Owner Designer Form (Page 1-6)"
CONTACT PERSON NAME	
COMPANY NAME	
COMPART ADDRESS	
CHY, STATE, ZIP COOK	
TELEPHONE NUMBER	
PACSIMEE NUMBER	
24-HOUR, MANNED AFTER HOURS PROVE NUMBER	
AQMD DUST CLASS CERTIFICATE #	
2. Project Address or Los	cation
PROJECT NAME	
PROJECT ADDRESS	
CITY, STATE, ZIP CODE	
NEAREST MAJOR CROSS STREETS	
FORCEL NUMBERS	

Fugitive Dust Control Plan Application Form (Form A - Page 1 of 4)

Please print in ink or type. Blank spaces must be completed for the application to be processed. If an item is not applicable, please enter N/A.

1. Form Preparer: Proper *(If	rty Owner Developer Prime Contractor Other * Other, attach Owner Designee Form [Page 3-8])*
CONTACT PERSON NAME	
COMPANY NAME	
COMPANY ADDRESS	
CITY, STATE, ZIP CODE	
TELEPHONE NUMBER	
FACSIMILE NUMBER	
24-HOUR, MANNED AFTER HOURS PHONE NUMBER	
AQMD DUST CLASS CERTIFICATE #	
2. Project Address or Lo	cation
PROJECT NAME	
PROJECT ADDRESS	
CITY, STATE, ZIP CODE	
NEAREST MAJOR CROSS STREETS	
PARCEL NUMBERS	

Fugitive Dust Control Plan
For Projects < 10 Acres
(Form DCP, Page 1 of 5)

Project Name:	
Permit Number (if appli	cable):
Owner Name:	
Anticipated Start Date:	Anticipated Completion Date:
	Cubic Yards):
Note: Fill out con	upletely and <u>describe</u> Control Actions (e.g., # of watering trucks during phases, available water GPM. etc.).
	Indicate N/A if not applicable

Project Phases

	Clearing, Grubbing, and Mass	Finish Grading	Site Construction
Source Category	Grading	(Describe Control Actions)	(Describe Control Actions)
	(Describe Control Actions)		
Backfilling			
Clearing and Grubbing			
Clearing Forms			
Crushing			

Ownership Designee Form (Form OD)

An owner's designee form is required if a Fugitive Dust Control Plan is not prepared/implemented by the property owner, developer or prime contractor.

prepared/implemented by the pro	sperty owner, developer of prime contractor.
PROJECT INFORMATION	PLEASE ENTER INFORMATION BELOW
DESIGNEE'S NAME	
COMPANY NAME	
Address/Location	
PHONE NUMBER	
AFTER-HOURS PHONE NUMBER	
AQMD DUST CLASS CERTIFICATE #	
PROPERTY OWNER INFORMATION	PLEASE ENTER INFORMATION BELOW
PROPERTY OWNER'S NAME	
ADDRESS/LOCATION	
PHONE NUMBER	
24-HOUR, MANNED AFTER- HOURS PHONE NUMBER	
OWNER STATEMENT	
issuance and requirements of the F responsible for project duration. T Fugitive Dust Control Class. Fur subcontractor(s), and all other personal control contr	ed as my designee to act on my behalf in all matters regarding the fugitive Dust Control Plan for construction activities. The designee is the designee has successfully completed the AQMD Coachella Valley thermore, the designee is responsible for ensuring the contractor(s), sons associated with the project are in compliance with the approved introl ordinance requirements, and AQMD regulations.
Owner's Signature	Date
Printed Name	

Fugitive Dust Control Plan Guidance

≥10 acres of disturbed surface area

- Fugitive Dust Control Plan Application (Form A) -pg. 46
- Owner Designee Form (OD) -pg. 50
- Site-Specific Fugitive Dust Control Plan pg. -67
 - Describe primary control measures based on CV BACM
 - Ordinance requirements in italics
 - Submit an approved Dust Plan to the South Coast AQMD w/in 10 days of City approval



Please	escription encure that Fugittee Dust Control Plan Application (Form A) is comple al to the Site-Specific Fugittee Dust Control Plan	and
	: Descripting	
	provide the following information as completely as possible. Description of Source(s) [Please provide but estimated]	
	Product provided to Contract Product provided to Contract	(C
2	Unpaved reads (Class applicable, classic lass)	
	Shineps Estaum of average daily mellic levels Type of more: vehicles using reads:	
5	Storage piles/Bulk Material handling (If we opplicable, check been	
	Management of piles Average length length words Configuration cone wandow other (specific)	
	Vehicular truck-out/Cleanup (Fase oppicatio, deck bev.	
	Number of access points which connect to public reads: Estimates of the nanconna number of relatives that will extribe size:	
5	Disturbed surface areas (Faor applicable, cleric bere)	
	Meninsun acrospe	
8	Unpaved Parking Latt (Fact opticitie, deckbers	
	Number of expensed late or this site:	
ioil Ty		
Dest (untral Budget	7
Dant C	rglet cardin	



SITE-SPECIFIC FUGITIVE DUST CONTROL PLAN* (SITES 10 ACRES OR GREATER)

Site Description

Please ensure that Fugitive Dust Control Plan Application (Form A) is completed and attached to the Site-Specific Fugitive Dust Control Plan.

Project Description

Please provide the following information as completely as possible.

No.	Description of Source(s) [Please provide best estimates]
1	Earth-moving (If not applicable, check here) Maximum cubic yards of earth-movement:/month or/year Anticipated start date: End date; or Ongoing (Check Amount of export: (Disposal site)
2	Unpaved roads (If not applicable, check here)
	Mileage: Estimate of average daily traffic levels: Type of motor vehicles using roads:
3	Storage piles/Bulk Material handling (If not applicable, check here)
	Maximum number of piles:, length/width:, length/width:, Configuration: cone: windrow: other (specify)
4	Vehicular track-out/Cleanup (If not applicable, check here)
	Number of access points which connect to public roads: Estimate of the maximum number of vehicles that will exit the site: / day
5	Disturbed surface areas (If not applicable, check here)
	Maximum acreage: Will any disturbed surface areas remain inactive for at least 10 days? Yes No
6.	Unpaved Parking Lots (If not applicable, check here)
	Number of unpaved lots at this site:
Soil 7	Types y soil type on site:
	Control Budget
	te of project dust control budget:
	r Source Identification
	source (g/m):
Back-u	p water source:

^{*} Use of an 8 $\frac{1}{2}$ by 11 inch, stand alone site-specific fugitive dust control plan is required regardless if the information is included on an approved grading plan.

Submittals for Projects ≥ 10 acres

Site-Specific Dust Control Plan Template Sample

No. 1 - EARTH MOVEMENT

Coachella Valley Best Available Control Measures

In the space below, please describe your control measures

Control Measure Control Action

Watering Number of water trucks: 10- 2,000 gal water trucks

Frequency of application: once per hour

Contingency Up to 3 additional 2,000 gal water trucks available

Measure(s) Watering frequency increased to 3 times per hour

Stop activities if visible emissions cross property line

Signage Guidelines



Purpose

Allow public to contact responsible party when visible emissions or trackout is observed



Notes

Quantity/Location approved by local authority

Text height as shown on template

Sign background must contrast with lettering

Sign should be 1" A/C laminated plywood board

Sign lower edge 6'min and 7'max above grade

Local or toll-free number and manned 24/7



If project duration <2 weeks may request waiver

Dust Control Signage Guidelines

(Pg. 86)

	SIGN AND LETTER SIZE REQUIREMENTS			
	Project size	<u><</u> 1 Acre	1.01 – 9.99 Acres	Over 10 Acres
	Sign size	24" H x 36"W	36" x 48"	48" x 96"
Permit # (if applicable)		2"	3"	4"
Developer's Name		2"	3"	4"
Project Name / Tract ####		2"	3"	4"
IF YOU SEE DUST COMING FROM		2"	3"	4"
THIS PROJECT CALL:		2"	3"	4"
Name, Phone Number XXX-XXXX		3"	4.5"	6"
If you do not receive a response, Please call		1.5"	2.25"	3"
City (County) at xxx-xxxx		1.5"	2.25"	3"
and call the South Coast AQMD 1-800- CUT-SMOG		1.5"	2.25"	3"

got signs?









Commonly seen at bankrupt vacant sites...



10-Minute Coffee/Water Break!













Chemical Dust Suppressant Recordkeeping Form

(Form CDS, Page 92)

- Sites that utilize chemical dust suppressants
 - Type product applied
 - Vendor name
 - Method
 - Frequency
 - Concentration
 - Quantity
 - Application Date





Chemical Dust Suppressant Recordkeeping Form

(Form CDS)

The dust control ordinance requires activities that utilize chemical dust suppressants must retain records indicating the type of product applied, vendor name, and the method, frequency, concentration, quantity and date of application. A copy of invoices for

chemical dust suppressant products or application services is also required. These records must be retained for at least three years after project completion.

Project Information	Please enter information below
Plan/Permit number (if applicable)	
Property Owner Name/Phone	
Construction Project Name	
Project address/location	
Dust Suppressant Product Information	
Date/Time of Application	
Name of Product	
Dilution Rate	
Application Rate	
Acreage/Square Footage treated	
Traffic or non-traffic area	
Dust Suppressant Applicator Information	
Applicator Name	
Contact	
Phone	
Warrantee Terms (if applicable)	

Signature of Form Preparer:	Date:
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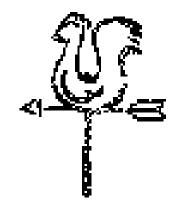
Fugitive Dust Control Plan Guidance

- > REMEMBER THE FOLLOWING...
 - Prior to Construction
 - Complete and Maintain on site a complete Fugitive Dust Control Plan
 - Install a construction signage
 - Dust Control 24/7 for duration of project
 - Daily Recordkeeping
 - Grading plans to include approved fugitive dust control plan
 - Initial and Completion Forms

Additional Guidance

Wind Monitoring

- -South Coast AQMD (909) 396-2399
- On-site wind monitor
- Essential for high wind exemption



➤ Test Methods Used

- Opacity
- -Stabilized Surface
- Threshold Friction Velocity
- Silt Loading/Content





Dust Control in the Coachella Valley

SUPPORTING SOUTH COAST AQMD RULES AND REGULATIONS



Rule 403: Fugitive Dust

(d)(1):

No person shall <u>cause</u> or <u>allow</u> visible emissions from any active operation, open storage pile, or disturbed surface area such that:

- The dust emission remains visible in the atmosphere beyond the property line.
- The dust emission exceeds 20% in opacity, if the dust emission is the result of movement of a motorized vehicle

(d)(2):

No person shall conduct active operations without utilizing the applicable best available control measures (BACM) listed in Table 1

Rule 403: Fugitive Dust

> (d)(3):

No person shall cause or allow PM10 levels to exceed 50 µg/m³

(d)(4):

No person shall <u>allow</u> track-out to extend 25 feet or more in cumulative length from the point of origin from an active operation and remove at conclusion of each workday

Rule 403: Fugitive Dust



> (d)(5):

An active operation with a <u>disturbed surface</u> area of > 5 acres, or daily imports/exports of >100 cubic yards of bulk material must utilize at least one of the measures in subparagraphs (d)(5)(A) through (d)(5)(E):

- Install gravel (not less than 1") pad (6" D x 30' W x 50' L).
- Pave the surface extending at least 100' L and 20' W.
- Install wheel shakers (24' L x 10' W).
- Install wheel washers.
- Any other method approved by the executive Officer and U.S. EPA, as equivalent to the actions listed in (5)(A) through (5)(D).

Rule 403 Exemptions

- Agricultural operations, whose combined disturbed surface area within one continues property is 10 acres or less
 - Agricultural operations that are within or outside the South Coast AQMD Basin, whose combined disturbed surface area includes more than 10 acres; provided that they are following the Rule 403 agricultural hand book

Rule 403 Exemptions

- Active operations
 - conducted under emergency life-threatening conditions or declared disaster/state of emergency
 - conducted by essential service utilities during service outages/emergency disruptions



Rule 403 Exemptions

Weed abatement operations ORDERED by a county agricultural commissioner or any state, county, or municipal fire department provided that:

- The order has been given due a fire hazard conditions
- The weed stubble is at least three inches above the soil and
- Watering is used to prior initiation of the weed abatement.



Rule 403 Exemptions

Rule 403 will not apply when wind gusts exceed 25 miles per hour provided that:

- The required Table 3
 contingency measures of
 Rule 403 are implemented
 for each dust source type
 and
- Records are maintained

Rule 403 Exemptions

Table 3 (summarized)				
DUST SOURCE CATEGORY	CONTROL MEASURES			
Earth moving	Cease all active operations OR Apply water to soil not more than 15 minutes prior to moving such soil.			
Disturbed surface areas	Apply chemical stabilizer prior to wind event.			
Unpaved roads	Apply chemical stabilizer prior to wind event, water twice an hour during operation, or stop vehicle traffic			
Open storage piles	Water twice an hour or install temporary coverings			
Paved road track-out	Cover haul vehicles or comply with CA Vehicle Code freeboard requirements			
All categories	Control measures approved by executive officer or EPA			

Rule 403 Exemptions

- Any active operation, open storage pile, or disturbed surface area for which necessary fugitive dust preventive or mitigative actions are in conflict with the federal Endangered Species Act
 - as determined in writing by the State or federal agency responsible for making such determinations







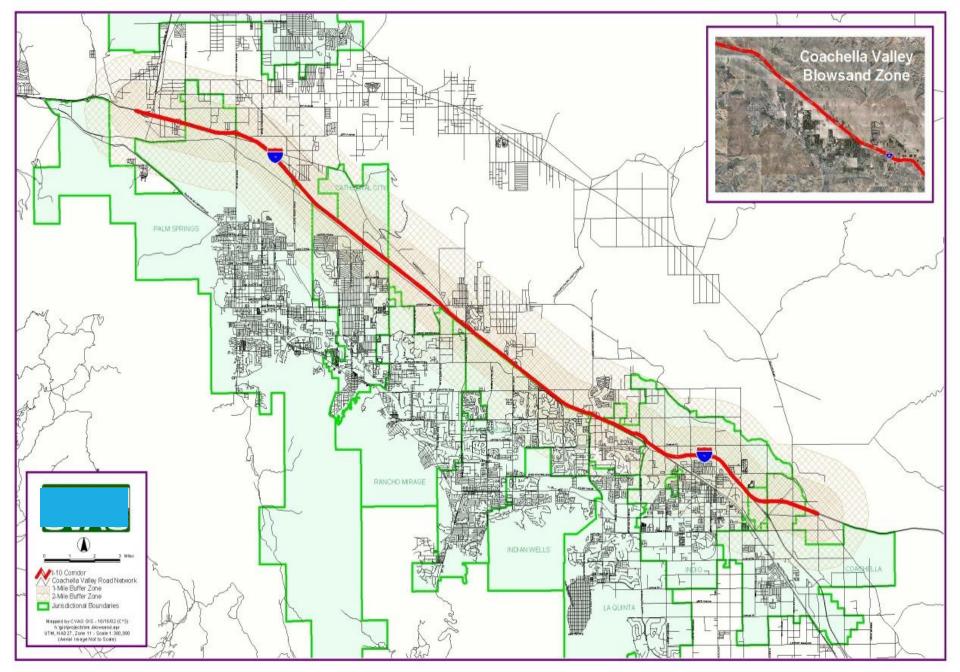




Supplemental Fugitive Dust Control for Coachella Valley

- Applicable to Anthropogenic (Man-made) Fugitive Dust Sources in the Coachella Valley.
 - -(d)(1) Wind Entrainment of Fugitive Dust
 - Wind monitoring required if seeking a Rule 403 exemption, when wind speed exceeds 25 mph, in order to qualify for this exemption you <u>MUST MEET ALL</u> the ordinance high wind conditions.
 - Wind speed verification must be by:
 - South Coast AQMD Forecast (909) 396-2399 or
 - On-site Monitor
 - -(d)(2) Special requirements for CV "Blowsand Zone"
 - 2 miles either side of I-10
 - Stabilize man-made deposits of bulk material within 24 hrs plus one stabilization procedure (70% cover water application 3x/day, dust suppressant six-month application, or install windbreaks)





Supplemental Fugitive Dust Control for Coachella Valley

- -(d)(3) Special Requirements for "Blowsand Zone"
 - □ 2 miles either side of I-10
 - > Stabilize deposits of bulk material originating from undisturbed natural desert areas within 72 hrs plus one stabilization procedure (70% cover water 3x/day, dust suppressant six-month application, or install windbreaks)
- -(d)(4) Inactive Disturbed Surface Area
 - □ Inactive disturbed areas (active operations ceased for 20 days or more) must be stabilized
 - > Implement at least one control action in Rule 403 Table 2
- -(d)(5) Agricultural Tilling
 - □ Agricultural tilling to cease when winds > 25 mph
 - > Based on the South Coast AQMD forecast (909) 396-2399 or
 - On-site Monitor

South Coast AQMD Rule 403.1 Supplemental Fugitive Dust Control for Coachella Valley

- (e)(1) Dust Control Plan must be approved <u>before</u> any earth moving activities
 - □Dust control plans required for projects > 5,000 ft² of disturbed surface area (approved by either City/County or South Coast AQMD as applicable)
- -(e)(2) Dust Control Plan
 - ■Keep copy of approved plan on site in conspicuous location
- -(e)(3) Dust Control Signage
 - □Install and Maintain signage prior to initiating any earth-moving activity of >5,000 ft² acres
 - □Signage must meet minimum requirements
 - □ Different than Ordinance requirements for Line projects (pipelines, cable access, etc.)

South Coast AQMD Rule 403.1 Supplemental Fugitive Dust Control for Coachella Valley

- (e)(4) Dust Control Supervisor
 - Dust Control Supervisor required for sites ≥ 50 acres total disturbed surface area



- Employed by or contracted with property owner or developer; and
- > Is on site or available within 30 minutes of initial contact; and
- Has the authority to expeditiously employ sufficient dust mitigation; and
- Has completed the South Coast AQMD Coachella Valley Fugitive Dust Control Class and been issued a Certificate of Completion
- (e)(5) Violation of the plan is a violation of the Rule

Supplemental Fugitive Dust Control for Coachella Valley

Fugitive Dust Control Plan Preparation, submittal, & Approval

- (f)(1) must be prepared according to (e)(1) in 8½" x 11" format & include:
 - Name, address, phone number of person(s) responsible for the preparation, submittal, and implementation of the fugitive dust control plan; **and**
 - Description of operation and site map; and
 - List of all fugitive dust emissions within property line; and
 - Description of control measures applied to each of the sources; and
 - Description of contingency control measures for immediate implementation upon exceedance of standards
- (f)(2) special technical circumstances (not economic) preventing use of at least 1 control measure requires justification statement attachment
- (f)(3) dust plans to be approved within 30 days of receipt. Plan must meet requirements of (f)(1).

Supplemental Fugitive Dust Control for Coachella Valley

- (f)(4) dust plan contact person will be notified if plan needs changes prior to approval.
- (f)(5) approved dust plans are valid for 1 year from date of approval.
 - > Resubmittal required annually, or within 30 days prior to expiration date (fees required).
 - > If no changes to original approved plan, <u>403NC</u> form can be submitted (no fees required).

Wind Monitoring Implementation Requirements

- -(g)(1) determination of wind speed per (d)(1) & (d)(5)
 - □ (A) sites with anemometer installed
 - > 2 wind gusts in excess of 25 mph in 30 minute period
 - □ (B) sites without anemometer installed
 - > South Coast AQMD wind forecast (909)396-
 - When no wind event is forecast: Dust emissions from source visible beyond 100 feet of site & evidence of wind-driven dust

Supplemental Fugitive Dust Control for Coachella Valley

- -(g)(2) installation of on-site anemometer
 - Notification required within 10 days of installation
 - ■Subject to (g)(1) requirements if equipment failure

Recordkeeping

- -(h)(1) daily records required for all actions taken for compliance.
- -(h)(2) special requirements for sites with installed anemometers
 - Records of equipment type, any wind gusts recorded in excess of 25 mph, and for compliance w/(d)(5) & (i)(3)

South Coast AQMD Rule 403.1 Supplemental Fugitive Dust Control for Coachella Valley

Exemptions

- (i)(1) ceased or inactive mining operations (Surface Mining & Recovery Act of 1975)
- (i)(2) provisions of (d)(2), (d)(3), & (d)(4) shall not apply to:
 - Any dust control actions that conflict with Federal or State Endangered Species Act. Ex. Site includes habitat of listed species as determined by State or Federal agency in writing).
 - ☐ Disturbed surface area or bulk material deposits less than 2500 sq. ft.
 - Non-routine or emergency maintenance of floodcontrol channels and water spreading basins
- (i)(3) provisions of (d)(5) shall not apply to agricultural tilling or soil mulching activities under the following conditions:
 - of for 2 days of high wind, the 3rd day is exempt (activities can continue)
- ☐ For 60 hours during a month, rest of month is exempt (activities can continue)
- During precipitation
- (i)(4) provisions of (e)(1) shall not apply to any active operation that is required to submit a dust plan to local jurisdiction.

Forms for different size sites by Jurisdiction

Jurisdiction	Size	Forms to use	
City/County	>5,000 ft ² & <10 acres	Forms A, DCP, & OD	
	≥ 10 acres	Forms A, Site Specific, & OD	
South Coast	>5,000 ft ² & <10 acres	400A, DCP, & OD	
AQMD	≥ 10 acres	400A, Site Specific, & OD	

South Coast AQMD Form 400A

(found at aqmd.gov)

Section D - Application Type							
6. The Facility Is: Not In RECLAIM or Title V	O In RECLAIM	O In Title V	O In RECLAIM & Ti	In RECLAIM & Title V Programs			
7. Reason for Submitting Application (Select only ONE):							
7a. New Equipment or Process Application:	7c. Equipment or Process with an Existing/Previous Application or Permit:						
New Construction (Permit to Construct)	Administrative Change						
C Equipment On-Site But Not Constructed or Operational	Alteration/Modification		Existing or Previous				
C Equipment Operating Without A Permit *	Alteration/Modification without Prior Approval *		Permit/Application				
Compliance Plan	Change of Condition		If you checked any of the items in 7c., you MUST provide an existing				
Registration/Certification	Change of Condition without Prior Approval *		Permit or Application Number:				
Streamlined Standard Permit	Change of Location						
7b. Facility Permits:	Change of Location without Prior Approval *						
Title V Application or Amendment (Also submit Form 500-A1)	Equipment Operating with an Expired/Inactive Permit *						
RECLAIM Facility Permit Amendment	* A Higher Permit Processing Fee and additional Annual Operating Fees (up to 3 full years) may apply (Rule 301(c)(1)(D)(i)).						
8a. Estimated Start Date of Construction (mm/dd/yyyy): 8b. Estimated End Date of Construction (mm/dd/yyyy): 8c. Estimated Start Date of Operation (mm/dd/yyyy):							
9. Description of Equipment or Reason for Compliance Plan (list applicable rule): 10. For Identical equipment, how many additional							
Dust Plan applications are being submitted with t			•	• •			

Local Jurisdiction Exemption

Projects with 5,000 ft² disturbed surface area that are <u>not</u> subject to local jurisdiction dust control ordinances (**but** are still subject to South Coast AQMD rules):

- Aggregate producers
- Landfills
- School Districts
- Water Districts
- Federal Land
- CA Dept. of Transportation (Caltrans)
- Other State projects
- Flood control maintenance
- Utilities
- some City/County projects

Other Applicable South Coast AQMD Rules...

Rule 401

Visible Emissions (H/S 41701)

Rule 402

Public Nuisance (H/S 41700)

Rules 201/203

Permits To Operate (i.e. permits for any engine with >50 BHP)

PERP (Portable Equipment Registration Program)

- http://www.arb.ca.gov/portable/perp/perp.htm
- Ex. Rental equipment with engines >50BHP

South Coast Agnid Rule 401-Visible Emissions

California Health & Safety Code Sec 41701

- Emissions **DO NOT** have to cross property line
- **≻**Single source
- Opacity determination
 - Certified observer
 - -AQMD Rule 401: 1 Ringlemann (20% opacity)
 - California H&S 41701: 40% opacity
- 3 minutes in 1 hour (cumulative)







South Goast Agnid Rule 402-Public Nuisance

California Health & Safety Code Sec 41700

- Considerable number of people (persons/public minimum of 6 complaints/one complaint per household) can lead to a violation
- Causing injury, detriment, nuisance, annoyance of an air pollutant nature (Ex. Dust, odors, track out, etc.)
- Endangering comfort, repose, health or safety of any persons that are affected at any time...







RULE 201: Permit to Construct RULE 203: Permit to Operate

> Rule 201

A person shall not <u>build</u>, <u>erect</u>, <u>install</u>, <u>alter</u> or <u>replace</u> any equipment or agricultural permit unit...without first obtaining written authorization for such construction from the Executive Officer. A permit to construct shall remain in effect until the permit to operate the equipment or agricultural permit unit...granted or denied, or the application is canceled.

≻Rule 203

- (a) A person shall <u>not operate</u> or <u>use</u> any equipment or agricultural permit unit...<u>without first obtaining a written permit to operate</u> from the Executive Officer or except as provided in Rule 202.
- (b) The equipment or agricultural permit unit shall not be operated contrary to the conditions specified in the permit to operate.

Portable Equipment Registration Program (PERP)

- \triangleright Engines and engine-driven equipment (50 bhp or greater) that emit PM $_{10}$
 - Statewide Program created by CARB
 - Can choose a South Coast <u>AQMD permit</u> or <u>CARB registration</u>
 - Ex. Electrical generators, wood chippers, compressors, pumps and cranes
 - Portable equipment can not remain at a single location for more than 12 months



Portable Equipment Registration Program (PERP)

- CARB registration is good anywhere in the state of California & lasts for 3 years
 - CARB assigns green placards & stickers for equipment
- South Coast AQMD permit is only good within the South Coast AQMD jurisdiction & lasts only 1 year
 - South Coast AQMD assigns permit (no sticker for equipment)





http://www.arb.ca.gov/portable/perp/perp.htm

Statewide Portable Equipment Registration

Registration No: 123456

Legal Owner or Operator: ARC Owner

Mailing Address: 12345

ABC Rd.

Engine Description:

Certified non-road portable internal combustion engine, compression ignition, Perkins, model 1104C-44, Serial No: 1031137 C110000R, rated at 128 bhp and diesel fueled.

U.S. EPA Engine Family Name: 3PKXL04.4RKI

Conditions: see attached

San Joaquin Valley Unified Air Home District:

Pollution Control District

Engine Inspection Discount: No inspection discount claimed

Expiration Date: December 31, 2010

Jorge Fernandez

Chief. Program Evaluation Branch Stationary Source Division

Sample Registration

Statewide Portable Equipment Registration

The following operating conditions apply for registration # 123456 Engine Serial # PAGE 1677111

General Requirements

- 1. The engine shall be properly maintained and kept in good operating condition at all times.
- The registration identification sticker shall be affixed in a visible location on the registered portable engine at all times. The metal placard shall be securely affixed on a vertical surface of the portable engine in a location that is readily visible from a distance. A legible copy of the registration certificate and operating conditions shall be kept on site with the portable engine and shall be made accessible to the Air Resources Board or district representative upon request.
- 3. Engine fuel shall meet standards for California motor vehicle fuels as set forth in Chapter 5. Division 3. Title 13, of the California Code of Regulations, or shall have been verified through the In-Use Strategies to Control Emissions From Diesel Engines verification procedure per Title 13 of the California Code of Regulations commencing with section 2700.
- 4. The engine and any replacement engine shall not reside at the same location for more than 12 consecutive
- The operation of this engine shall not cause a public nuisance.
- The engine shall be equipped with operational and properly maintained non-resettable hour time meter.
- 7. For each rental engine or an engine used in a third party rental transaction, the owner shall provide each person who rents the portable engine with a copy of the registration certificate, including operating conditions, as part of the rental agreement.
- 8. The operator of a portable engine or equipment unit shall obtain district authorization prior to operation at any specific location where the Statewide registration is not valid.
- 9. This registration is not valid for operation of generators used to provide power into the grid, except during an emergency event or other unforeseen event that affects grid stability.
- 10. This registration is not valid for operation of generators used to provide primary or supplemental power to a building, facility, stationary source, or stationary equipment except during the following scenarios: unforeseen interruptions of power from the serving utility; maintenance and repair operations; electrical upgrade operations that do not exceed 60 calendar days; and remote operations where grid power is
- 11. This registration is not valid for operation within the boundaries of the California Outer Continental Shelf and State Territorial Waters.
- 12. The portable engine shall not be operated under both statewide registration and a district permit at any specific location.

The following operating conditions apply for registration # 123456 Engine Serial # : Tootto

13. This registration is not valid for operation of an engine that powers an equipment unit that has been

Sample Conditions

Air Pollution Violations

<u>Violation Notices</u>- are issued for violations of any applicable South Coast AQMD rule, city/county ordinance, or state law...

Consequently, violations of South Coast AQMD rules and regulations are considered misdemeanors.

Criminal and Civil penalties are designed according to the State of California Health and Safety Codes, starting with Section 42400.

Notices of Violation Resolution Avenue:

- Minor Source Penalty Assessment Program (MSPAP)
- Civil Prosecution
- Referral for Criminal Prosecution

Air Pollution Violations

- Order for Abatement- South Coast AQMD enforcement staff determines that ongoing or repeated violations are likely, and can include:
 - Stopping the company from operating out of compliance
 - Imposing additional conditions, such as:
 - Maintain 3 12000 gallon Water Towers on site
 - Maintain eight 4000 gal water trucks on site
 - Water all unpaved roads every 2 hours
 - Install Wind Fencing & remove buildup > 1 foot
 - Install Wind Monitoring
 - Use 6-Month chemical stabilizers.

Air Pollution Violations

- ➤ Variance- continuous operation of equipment that is in violation for reasons <u>beyond</u> <u>YOUR control</u>
 - An administrative order to continue operating without penalties
 - Only the South Coast AQMD Hearing Board can grant a Variance (cannot be done by an inspector)
 - Forms to apply for a Variance can be found at aqmd.gov

AIR QUALITY COMPLAINTS

To Report Dust Emissions

Complaints:

Call the South Coast AQMD toll-free at:



1-800-288-7664

www.aqmd.gov

REMEMBER...CLEAN AIR IS EVERY BODY'S BUSINESS!



South Coast AQMD Dust Program Staff

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Yazmin Kakishita

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Contact for dust plan submittals

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ykakishita@aqmd.gov

The END... Questions?









Thank You For Attending