

Some Things Inspectors Look for During Compliance Inspections

- **Project signs** (projects ≥5 acres of permitted areas). Example:

Maricopa County Jail Complex
XYZ General Contracting
Permit # E030555; Expiration Date:
Responsible Project Individual(s)
John Doe (602) 555-5555 or Jane Doe (602) 555-5555

Dust Complaints: Call Maricopa County Air Quality Department
(602) 506-6010 or (602) 372-2703

- **Administrative requirements**

- Dust Permit/Dust Control Plan (shall be available on-site at all times)

- **Recordkeeping**

- Documentation shall be provided as soon as possible but no later than 48 hours
- Include list of subcontractors operating on site

- **Bulk material handling and fugitive dust**

- Visible emissions must be ≤ 20% opacity for all dust-generating operations
- Fugitive dust shall not be allowed beyond the property line

- **Haul operations**

- Haul trucks cargo compartments must be cleaned and/or tarped
- Haul trucks shall not be loaded higher than the sides/front/back of cargo container
- Prevent spillage from haul trucks

- **Stabilization** (meet stabilization standards per Rule 310, Appendix C):

- Open and disturbed areas
- Storage piles
- Roads
- Parking areas

- **Control Measures**

- Implement control measures stated in your Dust Control Plan (DCP)

- **Trackout/Trackout control device**

- Install, maintain and use a suitable trackout control device on all work sites with a disturbed surface area of two acres or larger
- Clean trackout > 25 feet immediately



Maricopa County

Air Quality Department

Dust Compliance Fall 2008



Background

According to the Environmental Protection Agency (EPA), Maricopa County has been in serious non-attainment for particulate pollution (PM_{10}) since 1996. When the air quality in Maricopa County failed to attain the PM_{10} standard by December 31, 2006, a group of agencies including Maricopa County, the Maricopa Association of Governments and local cities and towns were required to submit a plan to reduce PM_{10} emissions by five percent each year until the standard is once again met.

The Five Percent Plan was submitted to the EPA on December 31, 2007 and outlines more than 50 commitments to reduce dust; 38 of those commitments fall under the responsibility of Maricopa County. As a result, the Maricopa County Air Quality Department (MCAQD) revised Rule 310 to implement fugitive dust control measures and increase compliance with existing rules. This brochure is an overview of the revisions outlined in Rule 310 and Appendix C (Test Methods).

www.maricopa.gov/aq
Dust Compliance Resources

Dust Control Process

The following is a description of three major steps in the dust control process that must be followed:

1. Obtain a permit — A dust control permit is required for **any** dust-generating operation disturbing 0.1 acres (4,356 sq. ft.) or more. Permits are valid for one year. A new permit application must be submitted if the project extends longer than one year. Please note: if a permit is not required, dust control measures **must** still be met.

To obtain a permit, you must submit a permit application with a Dust Control Plan to the Air Quality Department. To find the application and Dust Control Plan, visit www.maricopa.gov/aq and click on Dust Control on the home page.

2. Implement your Dust Control Plan – A Dust Control Plan (DCP) must be implemented at all times (before, during and after operations). Before work commences, be sure you and your subcontractors understand all responsibilities in the plan. Give a copy of the DCP to the subcontractors before commencing work (Rule 310 Sec. 401.2b). Have the permit and DCP available at the job site. The dust control plan requires the permit holder to identify a primary and a contingency control measure for each dust-generating operation. If the primary control measure in the DCP proves to be ineffective, the contingency control measure must be implemented.

3. Monitor and keep records – Monitor and record dust-generating activities frequently to ensure your dust control plan is being implemented. For samples of daily recordkeeping logs (and blank forms), visit the Air Quality Department's website.

Training

A Dust Control Training orientation taught by air quality inspectors teaches the basic requirements of Rule 310. Each session is designed to last about an hour. To RSVP for a training session, contact the Maricopa County Air Quality Department at 602-506-6734.

Basic/Comprehensive Classes

Per Rule 310, all sites greater than five acres require a Dust Control Coordinator to be on-site during dust-generating operations.

Sites greater than one acre but less than five acres require, at a minimum, one Dust Control Coordinator who is certified with basic training on-site.

Certifications for basic training, comprehensive training, water truck and water pull drivers may be obtained via third parties. Visit the Dust Control section of the Air Quality Department's website at www.maricopa.gov/aq for a list of third party entities which provide these certification classes.

Project Site Planning

The benefits of early dust control planning can save time, money, resources and can significantly reduce dust emissions.

Project site planning actions to consider include:

- Phase your project and plan your site layout to minimize the disturbance of soil
- Ensure all subcontractors know who is in charge and understand the requirements for dust control
- Ensure all subcontractors have registered with MCAQD and their registration number is posted so that it is visible to the public
- Designate parking/staging areas and site access points to minimize the amount of disturbed surface area
- Restrict vehicle and equipment access on inactive areas
- Re-stabilize disturbed surface areas as they are created
- Install wind fences/barriers (<50% porosity). Place barriers around storage piles, parking and equipment staging areas
- Post the project sign at the entrance of the job site for sites five acres or larger

Fugitive Dust

Persons involved in dust generating operations shall not allow:

- Visible fugitive dust emissions to exceed 20% opacity



-Any visible emissions of particulate matter, including fugitive dust, beyond the property line. (Visible emissions exceeding 30 seconds in any six minute period shall constitute a violation).

Stabilization

Stabilization of disturbed surface areas can be achieved by effectively implementing your selected control measures. The following are the most common standards for defining stabilization:

- Unpaved Parking Lot (Rule 310 §304.1)**
Silt loading < 0.33 oz/ft² or silt content < 8%
- Unpaved Haul/Access Road (Rule 310 §304.2)**

Silt loading < 0.33 oz/ft² or silt content < 6%
An alternative to silt loading is to limit vehicle trips to no more than 20 per day and limit vehicle speeds to no more than 15 miles per hour. This must be reflected in the Dust Control Plan.

To achieve the above standards apply sufficient non-erodibles (i.e. gravel, water and/or a chemical stabilizer).



Disturbed Surface Area

Disturbed Surface Area (inactive)

Maintain a soil crust or Threshold Friction Velocity (TFV) of 100 cm/second or higher.

To achieve compliance with the above standard apply sufficient water or chemical stabilizer.

You may also implement other control measures to achieve compliance; however, they must meet the standards of Appendix C (see MCAQD website).

Alternate control measures include vegetation and/or non-erodibles (i.e. gravel, millings).



Testing

Testing must be conducted on disturbed areas to determine compliance. (Rule 310 Sec 501.2 c).

Consult Rule 310 and Appendix C to determine which test must be conducted.

Conduct the drop ball test in open disturbed areas to determine if a soil crust has been created.



For parking/staging areas and haul/access roads you must conduct the Silt Loading (SL)/Silt Content (SC) test.

Per Appendix C, if a disturbed area is damp to the touch, a test cannot be conducted.

Material Handling

Material handling refers to many types of dust generating activities on construction sites and it includes loading and hauling.

The following are guidelines to remember when hauling, transporting and storing bulk material:

On-site hauling/transporting within the permit boundaries and not crossing a paved area accessible to the public:

- Limit vehicle speed to 15 miles per hour, apply water to top of the load or cover haul trucks with a tarp or other suitable closure

On-site hauling/transporting within the permit boundaries and crossing/accessing a paved area accessible to the public:

- Haul trucks must have no less than three inches of freeboard
- Haul trucks shall not be loaded higher than the sides/front/back of cargo container
- Prevent spillage or loss of bulk material
- Install, maintain and use a suitable trackout control device

Open storage piles:

- Spray material with water or an alternative dust suppressant (active piles)
- Cover piles with tarp or other material, maintain a 12% soil moisture content, maintain soil crust or construct a wind barrier no more than 50% porosity (inactive piles)



Trackout Control Device

A trackout control device is any device that is used to remove mud or dirt from vehicles and must be installed on all exits onto paved areas accessible to the public. This device must be installed on sites with disturbed surface areas of two acres or greater and where 100 cubic yards of bulk material are hauled on-site or off-site per day.

The following are examples of trackout control devices:

- A gravel pad consisting of one to three inch diameter rocks with minimum dimensions of 30 feet wide by three inches deep and a minimum of 50 feet long or length of the longest haul truck, whichever is greatest.
- A grizzly device (rails, pipes, grates, etc.) used to dislodge mud, dirt and/or debris from vehicles exiting site.
- A wheel wash can be used to spray down vehicle tires prior to exiting the work site.
- A paved area on-site or off-site restricted to construction traffic only.



Remember to maintain your trackout control device.

Wind Events

A wind event is when the 60 minute average wind speed is greater than 25 miles per hour.

It is important to follow your Dust Control Plan when a wind event is suspected.

If you choose to cease operations, remember to stabilize the work area.

If you continue to work, you must apply water or other suitable dust suppressant at least twice per hour.