



DUST ABATEMENT FIELD GUIDE FOR THE CONSTRUCTION INDUSTRY

| RULE 310

MARICOPA COUNTY
AIR QUALITY DEPARTMENT

602-506-6734
DESK DUTY SUPERVISOR



MARICOPA COUNTY AIR QUALITY DEPARTMENT

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Resources for the Regulated Community

maricopa.gov/3571/Resources-for-the-Regulated-Community

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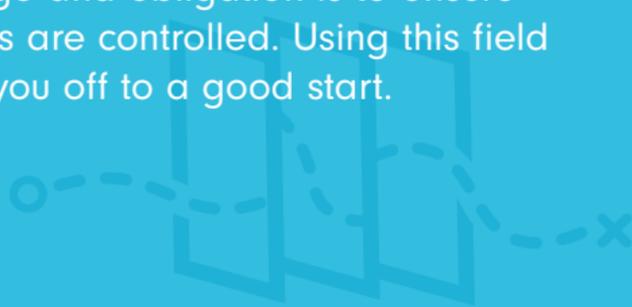
WHY IS DUST CONTROL IMPORTANT?

Dust emissions represent a problem that must be fixed. Dust (also known as particulate matter) poses a serious health concern and there are federal air quality standards that indicate when there are levels of dust that pose a health risk. Our region has exceeded these health limits and we are required to do better. Everyone must be aware of the need to control dust and to implement measures that keep the air clean.



Rule 310 was adopted to create a roadmap that leads to compliance with air quality standards for dust. By following Rule 310, dust emissions can be reduced. Failure to follow Rule 310 will likely result in a violation issued by the Maricopa County Air Quality Department.

A roadmap to compliance is summarized in this field guide. While many of the most important requirements are covered, this field guide does not cover everything, and the user should always rely on Rule 310 as the main source of guidance. When your activity has the potential to generate dust, your challenge and obligation is to ensure that dust emissions are controlled. Using this field guide should get you off to a good start.



STARTING OUT

WHAT IS REQUIRED BEFORE BEGINNING WORK AT A SITE?

Before disturbing an area of land **0.1 acre or more** you must:



OBTAIN A DUST CONTROL PERMIT

As part of the permit application process you will be required to fill out an application form and prepare a **dust control plan**.

The dust control permit:

- is not effective until the fee is paid and the dust control plan is approved. The permit must be on site when operations commence.
- is valid for one year.

REMEMBER:

The dust control permit and dust control plan must be kept on the job site at all times.



WHAT IS REQUIRED BEFORE BEGINNING WORK AT A SITE?

- Be familiar with Rule 310 and its requirements. The rule regulates dust emissions associated with construction activities.
- Understand your basic obligations. The applicant's signature on the dust control permit application:
 - » represents a binding agreement.
 - » requires the applicant to implement the control measures contained in the dust control plan.

REMEMBER:

- It is your responsibility to be aware of all dust control regulations **before** you begin activities that may generate dust.
- For more information about where and when dust control regulations apply, visit the department's website at **Maricopa.gov/aq** or call the Desk Duty Supervisor at 602-506-6734.



Not knowing about or understanding Rule 310 is not a defense. You may receive a notice of violation (NOV) even if you were not aware Rule 310 applies.

PLAN AHEAD:

-  Secure a water source.
-  Read and understand your dust control plan.
-  Make sure the approved dust control plan and permit are on site before starting a project.
-  Do not start a project or activity unless you can control dust.
-  Your project may require trackout devices, a sign, and/or trained Dust Control Coordinators who know how to control dust.

For information about **trackout control devices**, see **pages 5, 11, and 12**.

For information about **sign requirements**, see **page 14**.

For more information about **training requirements** for Dust Control Coordinators, see **pages 5 and 15**.

DURING DAY-TO-DAY OPERATIONS:

- Apply water to control emissions before, during, and after dust-generating operations.
- Actively monitor trackout throughout the workday.
- Make sure subcontractors have a registration number.

REMEMBER:

- Do not allow any visible dust to cross your property line.
- Keep on-site dust emissions to a minimum.
- Know when your permit expires (place date on your calendar).

KEY REQUIREMENTS TRIGGERED BY DISTURBED AREA ACREAGE*

| | Trackout Control Device Required | Identify a Site Representative | Designate a Dust Control Coordinator |
|---|----------------------------------|--------------------------------|--------------------------------------|
| Disturb 0.1–0.99 acre | | X | |
| Disturb 2.0 acres or more or move 100 yd ³ /day on or off-site | X | X | |
| Disturb ≥ 5.0 acres | X | | X |

* "Areas of disturbance" may include parking, staging and stockpiling areas, as well as driving over previously undisturbed areas.

NOTE: All projects that disturb ≥ 0.1 acre require a dust control permit and dust control plan.

TRAINING REQUIREMENTS BY DISTURBED AREA ACREAGE*

PERSONNEL

| | Water Truck/ Water Haul Driver (basic certification - 3-hour course) | Site Representative (basic certification - 3-hour course) | Dust Control Coordinator (comprehensive certification - 6-hour course) |
|--------------------------|--|--|--|
| Disturb ≥ 0.1 acre | X | | |
| Disturb 1.0 – 4.99 acres | X | X | |
| Disturb ≥ 5.0 acres | X | | X |

* "Areas of disturbance" may include parking, staging, and stockpiling areas, as well as driving over previously disturbed areas.

** The permit holder must give the Dust Control Coordinator authority to act to control dust. Permit holders who do not provide this authority can receive an NOV. Dust Control Coordinators who accept work without the authority to act to control dust can lose their certification.



- Have all site supervisors read and initial the dust control plan.
- Review the dust control plan with subcontractors.
- Keep the job site organized and presentable.
- Post site rules for dust control.
- Restrict access to inactive areas.
- If you can't control dust, stop work until you can.
- Patrol the site's perimeter and exits throughout the day to ensure there is no trackout.
- Ask the Dust Control Coordinator what steps to take if you aren't sure how to control dust.
- Establish subcontractor expectations.
- Conduct frequent dust control tailgate meetings.
- Carefully monitor your site and compile records documenting this.
- Be aware of sensitive neighbors who surround your site (e.g., schools, hospitals, etc.) — be a good neighbor and work to eliminate the potential for complaints.
- Post signs to reduce speeds.
- Consider fencing to direct vehicles to approved/controlled exits.
- Park only in approved, designated areas.
- Schedule a courtesy inspection. (See the Resources section at the end of this field guide, page 21, for more information.)



The permittee must provide all contractors and subcontractors with a copy of the site's dust control permit and dust control plan.



HOW TO USE THE DUST CONTROL PLAN

- Use the primary dust control measures listed in the dust control plan first.
 - » Use contingency measures listed in the dust control plan if the primary control measure is not effective or unavailable.
- If the primary or contingency control measures don't result in effective control, the dust control plan must be revised.
- Revise the dust control plan for changes in acreage, changes in critical personnel or their contact information, or any substantive change in operations or control measures.

REMEMBER:

- The dust control plan is in effect 24/7, including holidays and weekends.
- The provisions of a dust control plan are binding and enforceable – if you include a control measure in your plan, be prepared to implement it.



COMPLIANCE WARNING SIGNS

Every project should expect to be inspected several times during construction.

FIRST IMPRESSIONS MATTER! **INSPECTORS LOOK FOR:**

- visible dust emissions
- trackout on paved areas accessible to the public (e.g., roads, parking lots)
- large open storage piles
- a messy jobsite
- disorganized parking areas
- no source of water
- active hauling operations
- overloaded or uncovered trucks entering or exiting a site
- lack of required signage



Complaints will result in an immediate inspection.





AN INSPECTOR'S INITIAL CHECKLIST

- Is a valid dust control permit on-site?
- Is there an approved dust control plan?
- Are required dust control measures in use?
- Trackout Control:
 - » Is there 25 feet or more (cumulative) during work hours (violation threshold)?
 - » Is dirt observed in gutters?
- Is a Dust Control Coordinator on site when required?
 - » 5 acres or more disturbed = Dust Control Coordinator with comprehensive training certification (six-hour course) during primary dust-generating operations.
 - » 1.0–4.99 acres disturbed = site representative with basic training certification (three-hour course).
- Do water truck drivers have a basic training certification (three-hour course)?
- Is a sufficient water source available?
- Are monitoring records (logs) available and complete?

If kept off-site, dust control records must be presented to the inspector within 48 hours.

Remember to always have the project's dust control plan and dust control permit on site at all times.



EXPECTED INSPECTION FREQUENCY:

- Projects greater than 10 acres = at least 8 per year
- Projects 1 acre to 10 acres = at least 3 per year
- Projects 0.1 to 1 acres = at least 1 per year
- Complaints are always inspected on a priority basis.



WHAT RECORDS ARE REQUIRED?

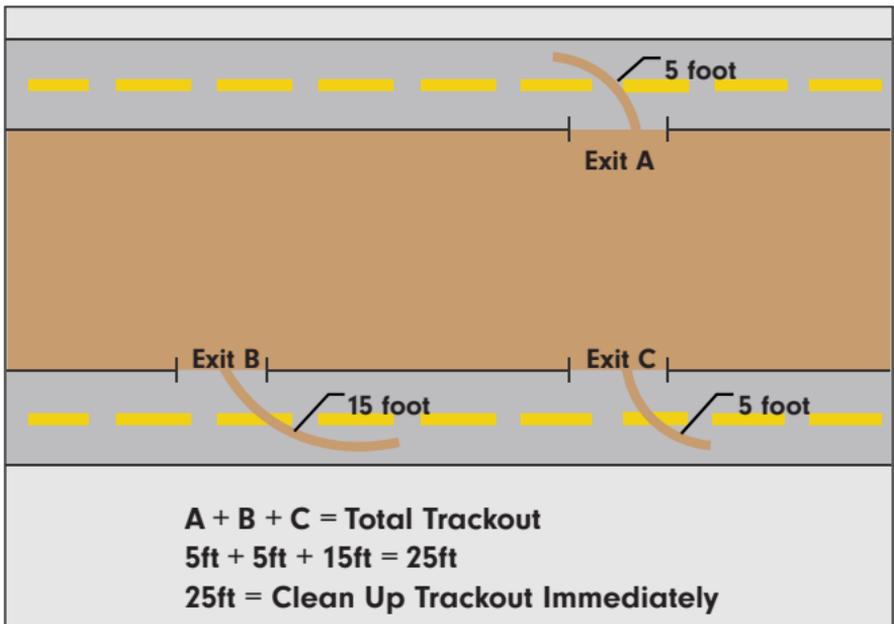
- The dust control permit and all updates must be on site.
- The dust control plan and all updates must be on site.
- Dust control logs documenting dust control measures used each day (must be available for inspection within 48 hours, when requested).
- Required critical information to include:
 - » trackout conditions and actions taken to clean up trackout
 - » when street sweeping occurred
 - » maintenance of trackout controls (what kind and when installed)
 - » daily water usage (note how water is applied, how often, and the amount)
 - » observations of damp and crusted soil
 - » any use of dust suppressant
 - » what kind of and when contingency measures in the dust control plan were used
 - » what subcontractors were on site – include registration numbers
- A list of employees who have completed dust control training, the date of the class, and the name of the training provider. Keep copies of training certificates on file and on site.
- All supporting documentation (e.g., street sweeping or water truck receipts).

A dust control permit holder must conduct a self-inspection daily and take notes to document observations.



Trackout is one of the most frequent violations written by inspectors; controlling trackout should be a top priority.

- Clean up trackout immediately if it extends **25 feet or more** (cumulative) in distance.
- You can wait until the end of the workday to clean up a short stretch of trackout (**only if less than a cumulative 25 feet**).
- Remember: trackout is cumulative. Include all trackout from any site exit onto pavement.
- You need a trackout control device if:
 - » the surface disturbance of your site is **two acres or larger**, or
 - » when 100 yd³ or more of bulk material is **hauled off** the site, or
 - » when 100 yd³ or more are **hauled onto** a site.



How to Calculate Trackout



Projects that disturb two or more acres, involve hauling 100 yd³ per day of bulk material off-site/ on-site, must have trackout control devices at each site exit. Types and specifications of approved trackout devices include:

GRAVEL PADS: consisting of washed gravel, rock, or crushed rock one inch or more in diameter; 30 feet wide (unless impracticable); 50 feet long (or as long as the longest haul truck) and 3 inches deep

GRIZZLY: 20 feet wide; bars must be three inches tall and six inches apart

PAVED AREAS: 20 feet wide; 100 feet long

WHEEL WASHERS: use a standard wheel wash system

REMEMBER:

Trackout controls must be maintained. Ineffective trackout controls can result in a notice of violation, even if they meet the requirements above. See page 11 for more information about trackout controls.

HAULING OPERATIONS

Off-Site Haul Truck Operations (when loaded)

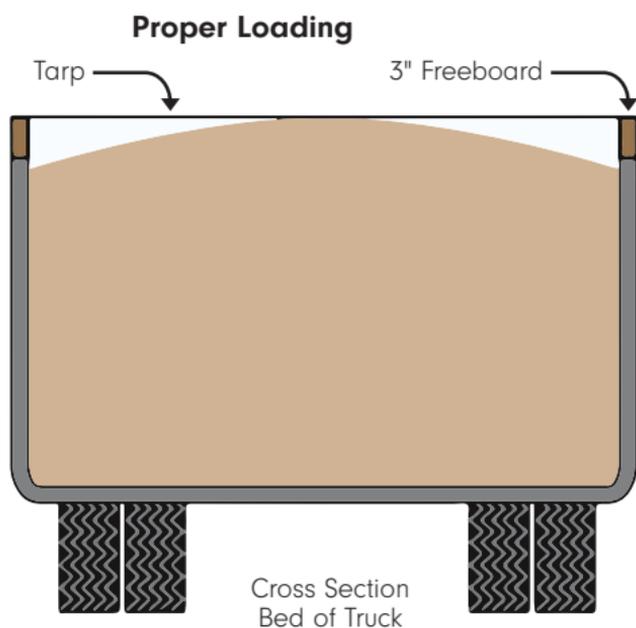
- Maintain at least three inches of free space (freeboard) between the top of the load and the top of the container. If the load is mounded, the peak of the mound must be no higher than the top of the container (see graphic on page 13).

- Prevent spills from holes or openings.
- Cover the load with a tarp or other suitable closure.
- If a trackout control device is required (see page 12), ensure that all vehicles exiting the site use the trackout control device.
- After the compartment is emptied:
 - » clean the compartment **or**
 - » cover with a tarp or other suitable closure before leaving the project site.

ON-SITE HAULING AND TRANSPORT:

- limit vehicle speeds to 15 mph or less, **or**
- apply water to the top of the load, **or**
- cover.

If crossing or accessing an area accessible to the public, add the provisions for off-site hauling and use a trackout control device.





INFORMATION TO INCLUDE

For sites permitted at five acres or more, the project information sign must contain the information shown below (using text size of at least four inches) and be placed at the main entrance of the site:

PROJECT NAME

PERMIT HOLDER'S NAME

FACILITY ID

**NAME & LOCAL PHONE NUMBER OF PERSON(S)
RESPONSIBLE FOR DUST CONTROL**

In addition, your sign must include the following text:

**DUST COMPLAINTS?
CALL MARICOPA COUNTY
AIR QUALITY DEPARTMENT
602-372-2703**

PROJECT
INFORMATION
SIGN

**ACME ESTATES, AZ123 DEVELOPMENT
FACILITY ID F202020**

CONTACT: ANITA PERMIT 602-000-0000

**DUST COMPLAINTS?
CALL MARICOPA COUNTY
AIR QUALITY DEPARTMENT
602-372-2703**

In addition to the project information sign, signs that have proven to be effective at sites are shown below.



RULE 310 – CRITICAL THRESHOLDS

Be aware of the following thresholds where the regulatory requirements change:

LAND SURFACE DISTURBANCE:

- <0.1 acre—no permit is required. However, dust still must be controlled.
- ≥ 0.1 acre—a permit is required.

OPERATING NEAR A PROPERTY BOUNDARY:

- When operating further than 25 feet—visible emissions beyond the property line are prohibited (see page 17).
- When operating within 25 feet—visible emissions are allowed beyond the property line, provided they remain under 20% opacity.

TRAINING/DUST COORDINATOR:

- **For any disturbance ≥ 0.1 acre:**
Water pull and water truck operators must have completed the basic dust control training (three-hour course).
- **For disturbances > 1.0 acre but < 4.99 acres:**
The site superintendent or designated representative must have completed the basic level of dust control training (three-hour course).
- **For land surface disturbance of five acres or more:** A certified Dust Control Coordinator with comprehensive training certification (six-hour course) is required during primary dust-generating operations.

TRACKOUT:

- Trackout equal to or greater than cumulative 25 feet—clean up immediately.
- Trackout less than cumulative 25 feet—clean up by the end of the work day.

An open storage pile is any bulk material capable of producing dust emissions that has a total surface area of **150 ft²** or more and is, at any point, **three feet or higher**.

- **Before and while working with storage piles:**
 - » spray with water or an approved dust suppressant.
- **After working with or when not using storage piles:**
 - » maintain a soil crust, **or**
 - » cover open storage piles with tarps, plastic, or other material, **or**
 - » apply water to maintain soil moisture content at a minimum of 12%, **or**
 - » in combination with applying water or maintaining a soil crust, construct and maintain wind barriers, storage silos, or a three-walled enclosure (refer to the Dust Control Abatement Handbook or Rule 310 for details).

Unstabilized Pile,
Subject to Notice of Violation



Adequately Stabilized Pile



VISIBLE EMISSIONS BEYOND THE PROPERTY LINE

- No visible emissions are allowed beyond the property line, except under very limited conditions (see page 18 for details).
- **ANY** observation of dust crossing a property line at any time, however faint, and which originates more than 25 feet from the property line, is a violation when visible emissions are observed for longer than 30 seconds (cumulative) over a six minute period.

Emissions that exceed 20% opacity are never allowed!



Visible emissions that extend into a public roadway create very hazardous conditions.



EXCEPTIONS TO VISIBLE EMISSIONS BEYOND THE PROPERTY LINE

- Under **very limited and very specific conditions**, Rule 310 provides an exception to the prohibition against visible emissions beyond the property line.
- Visible emissions across the property line are allowed **only if**:
 - » dust is actively being generated within 25 feet of the property boundary **and**
 - » the emissions do not exceed 20% opacity.
 - » The 30 second cumulative in six minute violation criteria does not apply.

REMEMBER:

Control measures must be applied when dust-generating activities occur within 25 feet of the property line boundary.

WINDY CONDITIONS

- When winds create visible emissions that cross a property line, cease dust-generating operations and stabilize any disturbed surface area to create a visible crust or ensure that disturbed areas are visibly damp or moist.
- Visible emissions crossing any property line will be considered a violation when they are observed for longer than 30 seconds over a cumulative six minute period.

Under windy conditions, maintain a visible crust or ensure that disturbed areas are visibly damp or moist.

ENTERING AN AREA SUBJECT TO RULE 310

Anyone who performs work in an area that is subject to a Rule 310 dust control permit must:

- Obtain and display a subcontractor registration number.
- Follow the requirements of each project's dust control permit and dust control plan.

Under Rule 310, a “subcontractor” is anyone working at a site that is subject to a dust control permit (e.g., electricians, plumbers, landscapers, etc.).

SUBCONTRACTOR REGISTRATION:

- Subcontractors must register with the department and obtain a registration number.
- Registration numbers must be clearly displayed so they are visible from a distance. Methods of display may include:
 - » a sign at the project entrance.
 - » painting it on a vehicle.
 - » a paper sign affixed to the vehicle or equipment.
 - » a magnet on the door or bumper of a vehicle.
 - » a rearview mirror hanger.

EXCEPTIONS TO THE SUBCONTRACTOR REGISTRATION REQUIREMENT

You **ARE NOT** required to obtain a subcontractor registration number if you are a:

- vendor/supplier delivery truck (except concrete, dirt, and rock haulers).
- lunch truck or food vendor.
- waste management truck.
- regulatory agency.

SUBCONTRACTORS ARE SUBJECT TO ENFORCEMENT

Subcontractors can be cited for violations of Rule 310. Potential violations may include:

- not using a trackout control device.
- grading when opacity exceeds 20%.
- loading/unloading when opacity exceeds 20%.
- wet utility/dry utility installation when opacity exceeds 20%.
- removal of barricades to avoid use of a trackout control device.
- untarped trucks exiting a site onto paved areas accessible to the public.
- truck freeboard limit exceeded and/or spillage while crossing a public area/roadway.
- creating visible emissions beyond property lines.



DUST CONTROL PERMIT APPLICATION FORM/GUIDANCE

maricopa.gov/1818/Permits-Forms-and-Applications

APPLICABLE RULES

maricopa.gov/1951/Adopted-Rules

Rule 310 – fugitive dust from dust-generating operations

Rule 200 – permit requirements

Appendix F – soil designations

Appendix C – test methods

DUST CONTROL TRAINING

The department provides basic and comprehensive dust control training for Rule 310. Information on scheduled training is located at:

maricopa.gov/1822/Dust-Control-Training

TRAINING LINE: 602-372-1467

AQTraining@maricopa.gov

SUBCONTRACTOR REGISTRATION INFORMATION

maricopa.gov/1823/Subcontractor-Registration

SCHEDULE A COURTESY SITE VISIT

Call 602-506-5102 to schedule a courtesy site visit. One courtesy site visit is allowed per construction project.

REPORT A VIOLATION

The department relies on citizens to help improve air quality in Maricopa County. You may report violations by calling 602-372-2703 or online:

maricopa.gov/2132/Report-a-Concern-or-Violation



Maricopa County Air Quality Department

3800 North Central Avenue, Suite 1400
Phoenix, Arizona 85012

Maricopa.gov/AQ