Maricopa County
Air Quality Department

Dust Abatement Handbook

Air Quality Department

March 2010

Maricopa County Air Quality Department

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Appendices

Most of the above documents are directly linked in this pdf version so you can readily access the document online.

Only those documents not accessible online are included in the Appendices

Introduction

If there is a scene that epitomizes the West in early movies and song, it is that of the dusty trail. Cattle drives and wagon trains are accompanied by prevalent, pervasive dust. If there is anything that can be readily created in the West, it is dust.

Today, dust (also known as particulate matter) is an unwelcome and unhealthy feature of poor stewardship of our lands. While dust from disturbed lands is predictable, it is also preventable.

The Maricopa County Air Quality Department's (department) Rule 310—Fugitive Dust from Dust-Generating Operations is a comprehensive set of regulations that, when properly implemented, will dramatically reduce dust emissions and improve air quality. The need for improved air quality for particulates is urgently important in Maricopa County.

While air quality is often good to excellent, the number of days that do not meet or approach the particulate air quality standard established by the United States Environmental Protection Agency (EPA) are far too many and leave the region in non-attainment. The result of unhealthful air quality on far too many days is the imposition of stringent controls designed to curtail and control emissions.

Rule 310 is a critical element in Maricopa County's strategy to achieve improved air quality, and broad compliance with the Rule's provisions is essential. The department has instituted an aggressive program to monitor compliance with the Rule, and strict enforcement is leading to reduced dust emissions.

Every approach to improving air quality comes with a learning curve. Rule 310 imposes requirements and opportunities for interpretation under a variety of scenarios. In developing this handbook, the department has reached out to those most affected and asked for and received their input. The intent of this handbook is to craft a practical guide offering a comprehensive overview of how the Rule 310 is interpreted that will be useful and used—a document that will become dog-eared and tattered through frequent reference.

PM-10 Nonattainment Area

The PM-10 nonattainment area includes a substantial portion of Maricopa County that includes most of the metropolitan Phoenix area. This area has been deemed a "nonattainment" area for air quality by the EPA and the Arizona Department of Environmental Quality (ADEQ).

The PM-10 nonattainment area exceeds the acceptable national standard for PM-10 pollution levels. PM-10 (particulate matter 10 microns, or smaller, in diameter) includes dust, soot, and other tiny bits of solid material that are released into and move around in the air. PM-10 is produced by many sources, including exhaust from cars, trucks, buses, and planes; industrial sources like power plants; fugitive dust sources like construction, mining, and agricultural activities; as well as fuel combustion like the operation of fireplaces and wood stoves.

Area A differs from the PM-10 nonattainment area. Within Area A, clean-burning gasoline measures (emissions testing; summer and winter fuel formulations) are applicable. The boundary has been used by many other state statues, rules, and ordinances (such as residential wood-burning) as the area of applicability for those respective regulations.

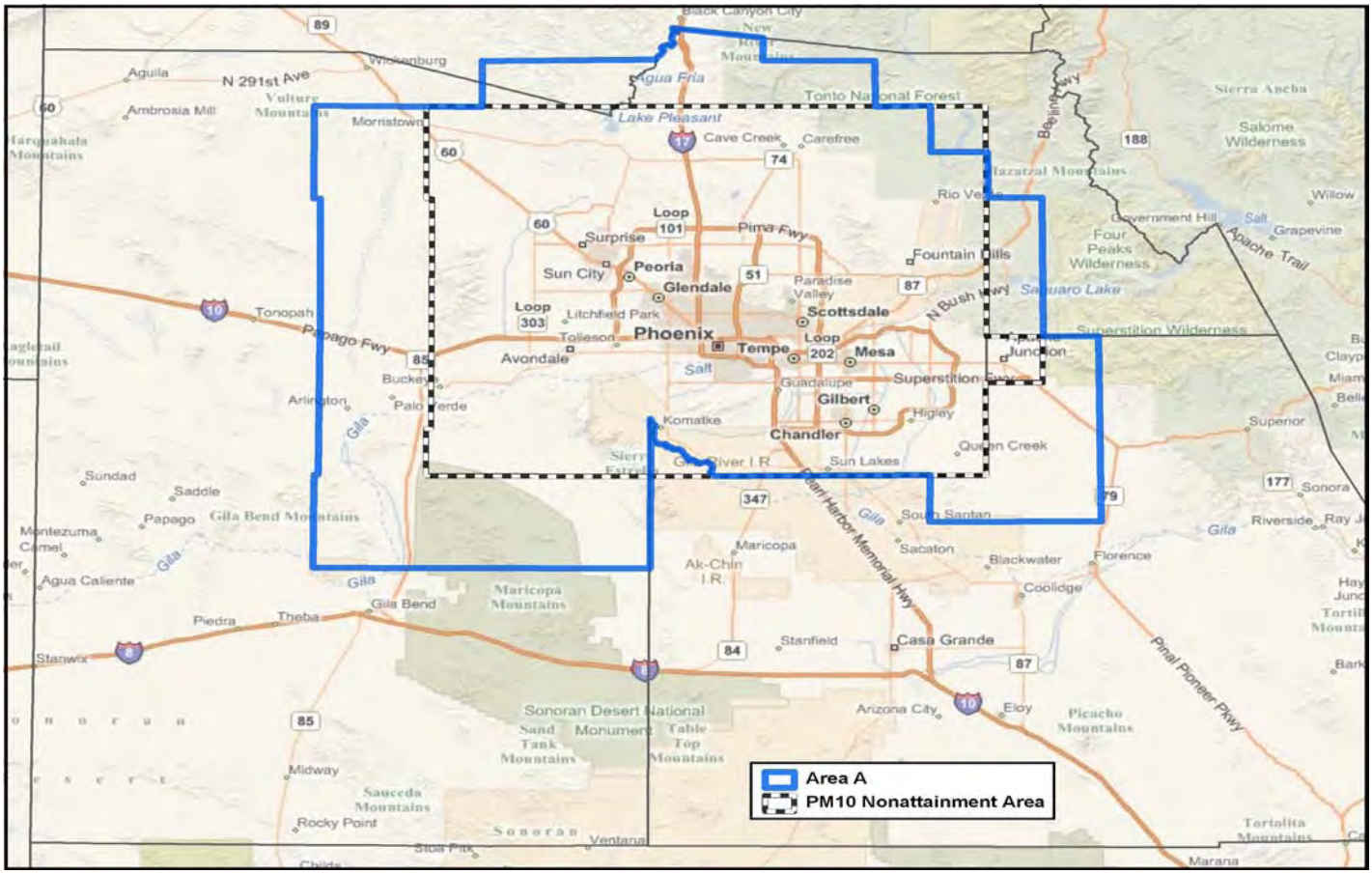
Coverage of Rule 310

Although Indian communities are found within the borders of Maricopa County, the department has no jurisdiction over them, because they are considered sovereign nations.

This handbook does not apply to developments in Pinal County.

Additionally, normal agricultural practices are under the jurisdiction of ADEQ, not Maricopa County. Construction activities on agricultural land are subject to Rule 310.

Rule 310 applies to all of Maricopa County regardless of whether a site is located in the PM-10 nonattainment area or Area A (two related but distinct designations).



PM-10 Nonattainment Area Map showing Area A

About this Handbook

The purpose of this handbook is to provide a practical guide offering a comprehensive overview of the department's policies and interpretations of Rule 310. The intent is that this guide will be useful and used. The handbook is organized to respond to topical questions and it is structured to provide answers to the most commonly encountered compliance challenges.

The department has also produced the *Dust Abatement Field Guide for the Construction Industry*, a pocket-sized, quick reference designed to provide information about how to comply with Rule 310 in the field. While not as comprehensive as this handbook, the Field Guide is a durable, reliable, and brief summary of the most important points that designated site representatives and workers in the field should know about Rule 310.

Disclaimer

This *Dust Abatement Handbook* and the related Field Guide are provided to assist in better understanding the provisions of Maricopa County Air Quality Department's Rule 310—Fugitive Dust From Dust-Generating Operations. The contents of this handbook and the Field Guide should not be viewed as the definitive statement of the Rule and how to achieve compliance. Where the clear language of Rule 310 and any formally issued policy related to Rule 310 conflicts with this handbook or the Field Guide, Rule 310 and the policy will prevail.

The user of this handbook should clearly understand that the discussion contained in this document is not binding. The Rule itself should be relied upon for a final determination of compliance. This handbook is not intended to serve as an alternative to Rule 310 which is, by itself, the definitive statement of dust-control requirements.

Updates

This document is expected to be updated from time to time. If you identify any area that requires clarification, please let us know. Send your comments to dickersond@mail.maricopa.gov. You may wish to check the website from time to time to see if any revisions are posted.

Where to Find the Full Text of Rule 310

Rule 310 is available online at http://www.maricopa.gov/aq/divisions/planning_analysis/rules/docs/310.pdf. Rule 310 is also an appendix to this document.

Acknowledgements

This handbook and the related field guide were developed in 2009 in a collaborative effort between the regulated community and the Maricopa County Air Quality Department. The basic document was developed by an internal working group within the Department and review and comment was provided by an external working group. The external working group was comprised of members of the regulated community who will rely on the contents of this handbook and field guide to improve compliance with Rule 310. Additional support was provided by Logan Simpson Design, Inc., working under contract with the department.

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Document Conventions

When a reference to a period of days is mentioned, it will mean calendar days unless otherwise specified.

It is recommended that this document be printed in color to allow all graphical features to be seen.

The reference to the Control Officer in the document refers to the Director of the Air Quality Department.

Acronyms

Commonly Used Rule 310-Related Acronyms

ABC Aggregate Base Course

ASTM American Society for Testing and Materials

ATI At the Time of the Inspection

CCM Contingency Control Measure

DCC Dust Control Coordinator

DCP Dust Control Plan

DG Decomposed Granite

HPA High Pollution Advisory

HPV High Priority Violation

HT Haul Truck

NOV Notice of Violation

NTC Notice to Comply

OAC Order of Abatement by Consent

PAAP Paved Area Accessible to the Public

PCR Permit Cancellation Request

PCM Primary Control Measures

PM Particulate Matter

PM-10 Particulate matter whose size is 10 micrometers or smaller (One micrometer is equivalent to $3.93700787 \times 10^{-5}$ inches)

TOCD Trackout Control Device

TFV Threshold Friction Velocity

TO Trackout

VE Visible Emissions

VEE Visible Emissions Evaluation

Section 1 - Before Starting Work

Maricopa County Air Quality Department

Getting Started

Why Rule 310?

Because air quality in the greater metropolitan Phoenix area does not meet air quality standards for PM-10, it is necessary to a have a comprehensive program to control PM-10 air pollution. Maricopa County's Rule 310 - Fugitive Dust from Dust-Generating Operations, was developed to provide part of this comprehensive program.

Coverage of Rule 310

Rule 310 is a county-wide rule and can be enforced in any portion of Maricopa County. Rule 310 also applies regardless of whether a site is located in the PM-10 Nonattainment Area or Area A (two related but distinct designations).

Rule 310 applies to any construction activity that results in soil disturbance. While a few activities are exempt, a good rule of thumb is to assume that the activity you are planning is covered by Rule 310 until you confirm otherwise.

The following activities are definitely covered: Land clearing using mechanized equipment, earthmoving, weed abatement by discing or blading, excavation, construction, demolition, bulk material handling, storage and or transporation operations, operating outdoor equipment, using staging areas, parking areas, haul and access roads, disturbing surface areas associated with a project site and installing initial landscaping or landscape maintenance using mechanized equipment.

Rule 316 - Nonmetallic Mineral Processing is another rule that applies a separate set of dust control requirements on specific activities. Although many features are similar, there are distinct differences.

What's Not Covered?

Although tribal communities are found within the borders of Maricopa County, the department has no jurisdiction over them because they are legally considered sovereign nations. Note: check with tribal governments as some have their own dust control requirements.

This handbook does not apply to developments in Pinal County. Additionally, normal agricultural practices are under the jurisdiction of the Arizona Department of Environmental Quality (ADEQ), not Maricopa County.

A tenth of an acre is a relatively small amount of land. Most custom home residential projects will easily fall under the criteria to have a permit.

Construction activities that take place on agricultural lands are subject to Rule 310. For example, construction of a new food processing warehouse on farmland would be covered and a permit required if the surface area disturbed met or exceeded 0.1 acre. Also, trackout originating from agricultural lands is covered under Rule 310 and is subject to enforcement.

Does Rule 310 Apply?

If you are engaged in a dust-generating activity covered by Rule 310, the rule requirements apply at all times (24/7). *Even if you do not need to have a permit, the dust control provisions of Rule 310 still apply to your project.*

Is a Permit Required?

The threshold for a permit is based on the amount of surface area disturbed by a project. If the area disturbed will meet or exceed 0.1 acre (4,356 square feet) then a permit is required.

Helpful Hint

If in doubt, ask us. Department staff are available to answer your questions and a good place to start is to contact the Desk Duty Supervisor at (602) 506-6734.

The opacity of dust emissions from dust-generating operations, as pictured at left, cannot exceed 20%.

Maricopa County Air Quality Department

A Few Essentials

What do you need to do to ensure that a project is in compliance? The following list of important Do's and Don'ts are intended to provide a snapshot of some of the most significant provisions of Rule 310. This handbook provides more expansive discussions on each of these provisions in later sections.

Before Starting Work

- ✓ Understand your project—boundaries, type of work, areas where soil will be disturbed, locations of exits and entrances, storage areas, equipment paths—consider everything that could potentially create dust.
- ✓ Don't start a project that disturbs greater than or equal to 0.1 acre until you have obtained a dust control permit. Include paths, foot traffic areas, and all other areas that are anticipated to result in soil disturbance, in your calculations to determine the size of the project.
- ✓ Plan ahead to ensure you receive your dust control permit before you start work—start the application process early. The department may require 14 days for review once an application is deemed complete. Also, factor in time for postal delivery of the permit.
- ✓ As part of the permit application process, you will be required to fill out an application which includes the Dust Control Plan. The approved permit and the plan must be on site before you start work.
- ✓ Read and understand your approved Dust Control Plan. During preconstruction meetings inform all project workers of Dust Control Plan requirements and ensure a successful project start-up.
- ✓ Request a courtesy inspection by an air quality inspector or their presence at the preconstruction meeting to answer questions. One courtesy inspection is allowed for each project phase (generally, these are demolition, land development, and vertical construction).
- ✓ Familiarize yourself with Rule 310 and this handbook. The Rule contains important details and requirements that may not be addressed in the handbook. Develop a working knowledge of the dust control requirements and related challenges.
- ✓ If your project is 1 acre or larger in size, your application must identify the soil texture found at the site. The soil texture is generally found in a soils report prepared for the project site (alternatively, Appendix F of the department's rules and regulations contains a map of soil descriptions).
- ✓ While trackout is prohibited for any

The department has up to 14 days to review a paid, technically complete permit application package. This timetable does not include postal delivery. Line up a Dust Control Coordinator, hydrants, and control equipment to be used at your site prior to submitting the application package. Consider municipal requirements, such as backflow prevention devices and obtaining hydrant meters.

Helpful Hint

Ideally, the Dust Control Plan should be filled out by someone familiar with controlling dust emissions.

Installing a Gravel Pad

Maricopa County Air Quality Department

A Few Essentials cont'd.

size project, if the project site is 2 acres or larger **or** you will be moving 100 yd^3 of material per day, establish a controlled exit with a trackout control device.

- ✓ If your project disturbs an area greater than one acre, the site superintendant must have completed the Basic Dust Control Training Class within the past three years
- ✓ If your project disturbs an area five acres or larger, an on-site Dust Control Coordinator is required. Make sure you have lined up a certified Dust Control Coordinator with a valid certification before starting work.
- ✓ Ensure that you are prepared to control dust prior to starting a project. (for example, secure a water source and be ready to apply water prior to initiating soil disturbance).
- ✓ Post required project information signs when the permit area is five acres or greater.

Helpful Hint

Once you understand the project and the obligations of your Dust Control Plan, factor dust-control costs into your project bid and budget. Include the cost of signage, training, dust-control staff, trackout control devices, and all other personnel and materials used to control dust.

Provide a Dust Control Plan with bid materials to subcontractors so they understand what is required and can submit accurate bids.

While Your Permit is Active

- ✓ Make sure subcontractors have a current registration number.
- ✓ Never allow on-site emissions to exceed 20% opacity.
- ✓ Actively monitor trackout during the course of the workday.
- ✓ Do not allow any visible dust to cross your property line.
- ✓ Apply water to control emissions before, during, and after earthmoving operations (Note: additional control options are available).
- ✓ If the primary dust control measure is ineffective, immediately implement the contingency measure from your approved Dust Control Plan. While the contingenecy measure can be applied along with the primary control measure, use of both, concurrently, is not required.
- ✓ Document the use of the contingency measure in your daily log.
- ✓ If dust emissions cannot be controlled, stop work.
- ✓ Understand and meet stabilization standards.

As Your Project Nears Completion

- ✓ Know when your permit expires and place the expiration date on your calendar along with the date by which the permit renewal application must be submitted (be sure to allow enough time for processing and postal delivery). Note: the department has up to 14 days to process your complete application. If the application is not complete or errors are present, additional time will be required to resolve any problems.
- ✓ Apply for permit cancellation when work is completed and ensure that disturbed areas within the permit area are stabilized and meet stabilization standards.

Maricopa County Air Quality Department

What Activities Are Covered by Rule 310?

Rule 310 regulates dust emissions associated with construction activities. Generally, if the surface of the ground is disturbed in some manner, or if bulk materials are moved from one location to another or stockpiled, the potential exists for fugitive dust emissions. Rule 310 applies to all activities that may result in fugitive dust emissions and a permit is required if the area to be disturbed is 0.1 acre or more.

Maricopa County defines "disturbance" as "a portion of the earth's surface or material placed on the earth's surface that has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed native condition if the potential for the emission of fugitive dust is increased by the movement, destabilization, or modification."

If you are engaged in dust-generating operations, no matter how small, you must control those emissions and comply with Rule 310. If you are disturbing 0.1 (one-tenth) acre or more, you must comply with Rule 310 and obtain a dust-control permit. One-tenth of an acre is just 4,356 ft^2.

Examples of activities that can disturb 0.1 acre include:

- ✓ parking five pickup trucks next to each other on open dirt.
- ✓ staging 10 yd^3 of aggregate base.
- ✓ driving 360 feet onto undisturbed land.

What is Considered a Dust-Generating Activity?

A primary dust-generating activity is any operation capable of generating fugitive dust, including but not limited to, the following:

- ✓ land clearing, maintenance, and land cleanup using mechanized equipment.
- ✓ earthmoving.
- ✓ weed abatement by discing or blading.
- ✓ excavating.
- ✓ construction.
- ✓ demolition.
- ✓ bulk material handling (e.g., bulk material hauling and/or transporting, bulk material stacking, loading, and unloading operations).
- ✓ storage and/or transporting operations (e.g., open storage piles, bulk material hauling and/or transporting, bulk material stacking, loading, and unloading operations).
- ✓ operation of any outdoor equipment.
- ✓ operation of motorized machinery.
- ✓ establishing and/or using staging areas, parking areas, material storage areas, or access routes to and from a site.
- ✓ establishing and/or using unpaved haul/access roads to, from, and within a site.
- ✓ disturbed surface areas associated with a site.
- ✓ installing or maintaining landscaping while using mechanized equipment.

Remember:

Disturbed surfaces do not have to be contiguous (connected to or adjacent to each other)!

Bulk Material Pile

Maricopa County Air Quality Department

What Is Required Before Commencing Work at a Project Site?

Be safe—get a permit before doing anything that will disturb the land.

- ✓ Apply for and receive a permit before doing anything that will disturb as little as 0.1 acre of land.
- ✓ Prepare a Dust Control Plan and submit it to the department as part of your permit application.
- ✓ Remember:
  - ▫ permit coverage is required for only those areas in your permit that will be disturbed, including the working area, prep areas, and parking areas. You can add areas as needed using the Permit Acreage Increase Request Form.
  - ▫ the dust control permit is good for one year (permits for shorter or longer periods are not available).
  - ▫ a dust control permit is not effective until the fee is paid.
  - ▫ a dust control permit and the approved Dust Control Plan must be kept on site at all times. Work cannot begin on the site until the approved permit is received and onsite.
  - ▫ all project workers on your site, including subcontractors, should be familiar with the plan.
- ✓ If the site is one acre or greater, a description of the site-specific soil designations must be prepared. (See Appendix F of the Maricopa county Air Pollution Control Rules and Regulations).

Still need a permit even though your existing permit may soon expire?

- ✓ Apply for a new permit at least 14 calendar days prior to expiration. Keep in mind:
- ✓ A new Dust Control Plan must be submitted.
- ✓ A new permit number will be issued.
- ✓ The project information sign should be updated with the new permit number.

Understand Your Obligations

- ✓ The applicant's signature on the dust control permit application represents a binding agreement and obligates the applicant to implement identified control measures on the permitted area for the life of the permit (i.e., one year or until the permit is closed out by the department).

  The permit holder is ultimately responsible for ensuring the permitted site is in compliance at all times to prevent risks to the environment and the public, even if noncompliance is the result of an action by an owner, subcontractor, or trespasser.
- ✓ The provisions of an approved Dust Control Plan are binding and enforceable—if you don't intend to implement a provision of the plan don't include it. Conversely, if you plan to take an action to control dust, ensure that action is included in your permit as one of your options.
- ✓ The approved Dust Control Plan is effective 24/7, including holidays. Therefore, dust must be controlled 24/7.

Become familiar with Rule 310 and its requirements. Rule 310 is available through the department's website at ***www.maricopa.gov/aq/divisions/planning_analysis/rules/docs/310-1001.pdf.***

Posted Permit

Helpful Hint

An easy way to ensure that the permit and approved Dust Control Plan are on site at all times is to post a copy of the permit document to some semi-permanent onsite feature. Alternatively, the permit can be kept in a more secure location onsite. ***The most important thing is to ensure that the permit can be produced during an inspection.*** While affixing the permit to a fence as shown in the photo is acceptable, the site superintendant should consider having a backup copy handy in case of vandalism or loss of the documents.

Section 2 - Dust Control Permit

Maricopa County
Air Quality Department

The Dust Control Permit and Dust Control Plan

Applying for a Permit

The dust control permit application package, which contains instructions for filling out the permit application forms as well as the Dust Control Plan associated with the dust control permit, is located online on the department's website at http://www.maricopa.gov/aq/divisions/compliance/dust/docs/pdf/DustControlPermitApplicationPackage.pdf.

Completed applications should be submitted, along with payment of the fee, to:

One Stop Shop
501 North 44th Street, Suite 200
Phoenix, Arizona 85008

Include the appropriate fee for your dust control permit application. The completed application can be submitted to the One Stop Shop in person or by mail with payment by check or money order. A credit card or cash may be used for payment if the application is submitted in person at the One Stop Shop location.

The Dust Control Plan

The Dust Control Plan is completed by the applicant and submitted as part of the permit application. The Dust Control Plan is an integral part of the permit and is effective upon approval of the permit. Given its importance, consider having the Dust Control Plan completed by someone familiar with dust-generating operations.

Fees

Basic fees for a dust control permit (permit valid for one year) are calculated on the basis of the total disturbed acreage (Note: this is a new fee structure that went into effect on July 1, 2010). Fees are established according to the following schedule:

$795	0.1 to less than one acre
$1,325	One acre to less than ten acres
$3,855	Ten acres to less than 50 acres
$6,425	50 acres to less than 100 acres
$9,635	100 acres to less than 500 acres
$15,415	500 acres or greater

- ✓ a late fee of $100 is required for any application submitted in response to a violation.

The fee for a block permit is $2,000.

Make checks payable to "Maricopa County Air Quality Department" or "MCAQD."

Receiving Your Permit

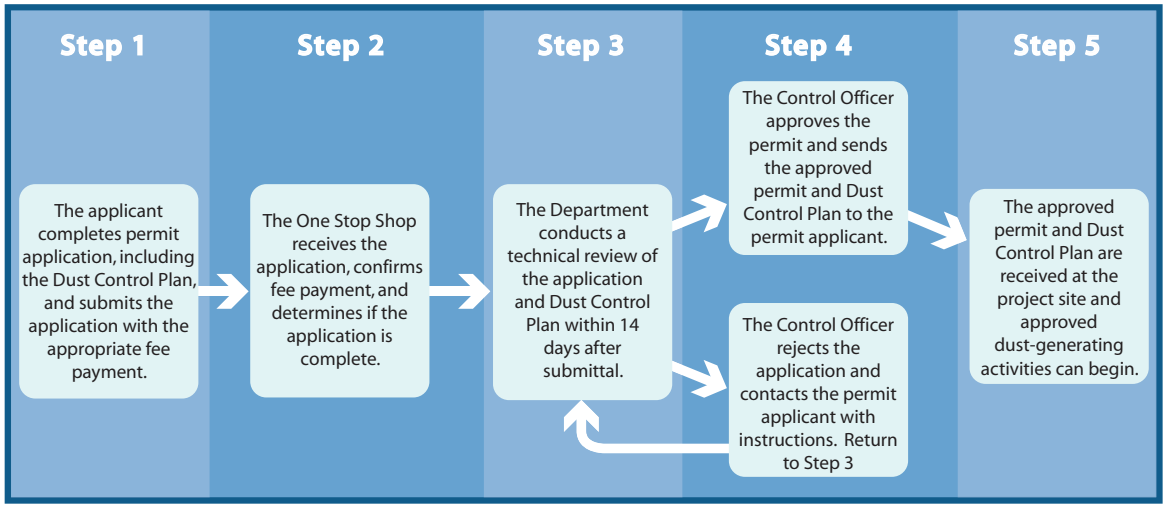
The completed permit will be sent to the applicant's address. Allow up to 14 days for permit processing plus sufficient time for delivery by U.S. Postal Service First Class mail.

What to Do When Your Permit is about to Expire

Still need a permit even though your existing permit may soon expire?
Apply for a new permit well before your current permit is about to expire. Remember to allow up to 14 days for the department to review the complete application, as well as time for postal delivery.

Keep in mind:

- ✓ a new Dust Control Plan must be submitted with the new permit application.
- ✓ only include those areas that are still disturbed. Hardscaped and landscaped areas do not need to be included.
- ✓ a new permit number will be issued.
- ✓ the project information sign should be updated with the new permit number.



Permitting Administrative Process

The Dust Control Plan (310 §402)

The Dust Control Plan is submitted as part of the permit application. The department reviews each Dust Control Plan for completeness and technical accuracy.

Updating the Dust Control Plan

The approved Dust Control Plan can be revised at the initiative of the permit holder *or* as directed by the department.

Revisions to the Dust Control Plan are not effective at time of submittal—they must be approved by the department before becoming effective. Changes to the Dust Control Plan required by the department's control officer must be submitted within 3 working days of receipt of the control officer's directive.

Helpful Hint

Allow at least 14 days for the Department to approve revisions to the Dust Control Plan. You must follow your existing, approved permit and plan until you have received notice from the department that your changes have been approved.

Changes Made at the Initiative of the Permit Holder

The permit holder may request changes to the Dust Control Plan for:

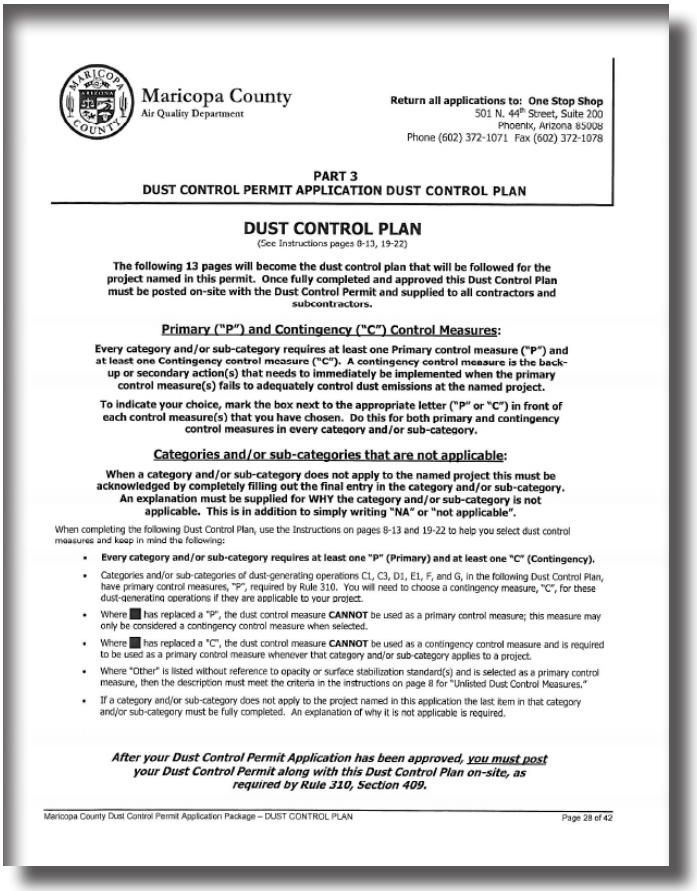
- ✓ changes in acreage.
- ✓ changes in the designated Dust Control Coordinator and/or his or her contact information.
- ✓ substantive changes in operations.
- ✓ any change requested by the Dust Control Coordinator or designated site representative.
- ✓ changes to primary or contingency control measures

Changes Required by the Department

At times, dust emissions may continue to occur even if the control measures contained in the Dust Control Plan are followed. When this occurs, the department will issue a notice to the permit holder requiring revisions to the Dust Control Plan. The permit holder must submit required revisions within 3 working days of receipt of the notice. If more than 3 working days are needed, the permit holder can request an extension. Even though the extension is available, it is not guaranteed that the extension will be granted. In any event, compliance with Rule 310 is expected immediately.

Helpful Hint

OPEN YOUR MAIL - often documents will have a deadline or action date included. Don't miss critical deadlines by failing to open mail from the department immediately.



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Return all applications to: One Stop Shop
501 N. 44th Street, Suite 200
Phoenix, Arizona 85008
Phone (602) 372-1071 Fax (602) 372-1078

PART 3
DUST CONTROL PERMIT APPLICATION DUST CONTROL PLAN

DUST CONTROL PLAN
(See Instructions pages 8-13, 19-22)

The following 13 pages will become the dust control plan that will be followed for the project named in this permit. Once fully completed and approved this Dust Control Plan must be posted on-site with the Dust Control Permit and supplied to all contractors and subcontractors.

Primary ("P") and Contingency ("C") Control Measures:

Every category and/or sub-category requires at least one Primary control measure ("P") and at least one Contingency control measure ("C"). A contingency control measure is the back-up or secondary action(s) that needs to immediately be implemented when the primary control measure(s) fails to adequately control dust emissions at the named project.

To indicate your choice, mark the box next to the appropriate letter ("P" or "C") in front of each control measure(s) that you have chosen. Do this for both primary and contingency control measures in every category and/or sub-category.

Categories and/or sub-categories that are not applicable:

When a category and/or sub-category does not apply to the named project this must be acknowledged by completely filling out the final entry in the category and/or sub-category. An explanation must be supplied for WHY the category and/or sub-category is not applicable. This is in addition to simply writing "NA" or "not applicable".

When completing the following Dust Control Plan, use the Instructions on pages 8-13 and 19-22 to help you select dust control measures and keep in mind the following:

- **Every category and/or sub-category requires at least one "P" (Primary) and at least one "C" (Contingency).**
- Categories and/or sub-categories of dust-generating operations C1, C3, D1, E1, F, and G, in the following Dust Control Plan, have primary control measures, "P", required by Rule 310. You will need to choose a contingency measure, "C", for these dust-generating operations if they are applicable to your project.
- Where ☒ has replaced a "P", the dust control measure **CANNOT** be used as a primary control measure; this measure may only be considered a contingency control measure when selected.
- Where ☒ has replaced a "C", the dust control measure **CANNOT** be used as a contingency control measure and is required to be used as a primary control measure whenever that category and/or sub-category applies to a project.
- Where "Other" is listed without reference to opacity or surface stabilization standard(s) and is selected as a primary control measure, then the description must meet the criteria in the instructions on page 8 for "Unlisted Dust Control Measures."
- If a category and/or sub-category does not apply to the project named in this application the last item in that category and/or sub-category must be fully completed. An explanation of why it is not applicable is required.

After your Dust Control Permit Application has been approved, you must post your Dust Control Permit along with this Dust Control Plan on-site, as required by Rule 310, Section 409.

Maricopa County Dust Control Permit Application Package – DUST CONTROL PLAN Page 28 of 42

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How is the Approved Dust Control Plan Used (310 §402)

From the department's perspective, the approved Dust Control Plan is a contract between the permit holder and the department—its terms are enforceable, even against subcontractors working on a site. The measures included in the Dust Control Plan are the measures that inspectors will expect you to apply to your site.

Primary controls listed in the plan are to be used first. Contingency measures are to be used when the primary controls are not effectively controlling dust emissions.

If primary controls or contingency measures don't result in effective control, the approved Dust Control Plan must be revised. The obligation is clearly on the permit holder to control dust emissions. If emissions cannot be adequately controlled using all available measures, the project will be in violation of Rule 310 and subject to enforcement by the department.

P= Primary Control Measure

The first approach you implement to control dust emissions

C= Contingency Control Measure

The backup strategy to be used when the primary control measure is not effectively controlling dust emissions

Z.1 Operations

- ☑ P ☐ C Apply water **(Fill out Category I, "Water" on pp. 37-41)**
- ☐ P ☐ C Pave (Choose one of the following): ☐ Beginning of Project* ☐ During Project* ☐ End of Project*
  *Must specify additional primary control measure(s) that will be in place prior to paving
- ☐ P ☐ C Limit vehicle trips to no more than 20 per day per road **AND** limit vehicle speeds to no more than 15 m.p.h. In the space provided, list the maximum number of vehicle trips on the unpaved access areas/haul roads each day (including number of employee vehicles, earthmoving equipment, haul trucks and water trucks) and a description of how vehicle speeds will be restricted to no more than 15 m.p.h.: _____
- ■ ☑ C Cease operations, NOTE: This option CANNOT be considered a ***primary*** control measure.
- ☐ P ☐ C Other: _____

Or, explain why this sub-category and its control measures are not applicable _____

This form has been correctly filled out.

In this example, the form at right is incorrect because ceasing operations has been marked as a primary control measure - a choice which is not allowed.

Z.1 Operations

- ☐ P ☐ C Apply water **(Fill out Category I, "Water" on pp. 37-41)**
- ☐ P ☐ C Pave (Choose one of the following): ☐ Beginning of Project* ☐ During Project* ☐ End of Project*
  *Must specify additional primary control measure(s) that will be in place prior to paving
- ☐ P ☐ C Limit vehicle trips to no more than 20 per day per road **AND** limit vehicle speeds to no more than 15 m.p.h. In the space provided, list the maximum number of vehicle trips on the unpaved access areas/haul roads each day (including number of employee vehicles, earthmoving equipment, haul trucks and water trucks) and a description of how vehicle speeds will be restricted to no more than 15 m.p.h.: _____
- ■ ☑ P ☐ C Cease operations, NOTE: This option CANNOT be considered a ***primary***
- ☐ P ☐ C Other: _____

Or, explain why this sub-category and its control measures are not applicable _____

This form has been incorrectly filled out.

Section 3 - Approved Training

Maricopa County Air Quality Department

Dust Training (310 §309 and §310)

What Training is Required?

Rule 310 requires certain personnel at a permitted site to receive training on dust control and emission reduction strategies. The level of required training and which personnel must be trained depends on the amount of acreage disturbed within the permitted area. The table below shows who must be trained and the level of training required by size of the disturbed area.

Who Can Provide Training?

The department has established an approved training program to certify individuals who have successfully completed required training. Training must be given by a trainer who has been approved by the department. A list of approved trainers is available on the department's website at *www.maricopa.gov/aq/divisions/compliance/dust/dust_control_training/default.aspx.*

Trainer Program

Interested in becoming a trainer? Contact the department for information on the process.

Certifications

There are two levels of certification: basic and comprehensive.

Basic Certification

To earn basic certification, individuals must complete the three-hour training course. As indicated in the table, water truck and water haul drivers are required to earn basic certification.

On projects that disturb more than 1.0 acre, the permit holder must designate a site representative who has earned basic certification.

In addition, a Dust Control Block Permit holder is required to have at least one individual who has received the basic dust training certification on those sites on which there is greater than one acre of surface disturbance.

Employees required to have the basic dust training must renew their training certification once every three years.

Visible Emission Certification

Certification of Dust Control Coordinators is not required but is strongly recommended.

Comprehensive Certification

Comprehensive training is a six-hour training that covers dust control measures in detail. Individuals who complete this training earn comprehensive certification and may be designated as a Dust Control Coordinator.

On projects that disturb 5 or more acres, the permit holder must identify a certified Dust Control Coordinator *who must be present at all times during primary dust-generating activities.*

A Dust Control Coordinator must complete the comprehensive training program once every three years.

Note: Comprehensive training includes basic certification.

Dust Control Coordinators:

- Are required on projects that disturb five or more acres
- Must have earned the comprehensive certification
- Must be identified in the dust control permit application (Part 2, Question #5)
- Must be onsite during dust-generating activities.

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.*

Training Requirements By Disturbed Areas

Helpful Hint

The need for the Dust Control Coordinator to be onsite during dust-generating activities cannot be over emphasized. Experience has shown that violations often result when the Dust Control Coordinator is not available to oversee operations.

Maricopa County Air Quality Department

Dust Training (310 §309 and §310) (cont'd)

Authority to Direct Activities to Comply with Rule 310

To receive a dust control permit, the permit holder must name a site representative or Dust Control Coordinator who has the level of training required based on the area disturbed by the project (see table on page 3-1). If a site representative or Dust Control Coordinator is required based on the size of the project, he or she must be given the authority to act to control dust by the permit holder. This means the site representative or Dust Control Coordinator must be able to direct actions within an area covered by a permit to ensure compliance with Rule 310—including ceasing operations, if necessary, to ensure that dust is not generated.

Helpful Hint

Maintain a legible photocopy of the certification card for each trained personnel member in a file or binder located onsite so that it is accessible during an inspection.

Remember:

- ✓ trained site representatives are required on projects that disturb 1.0-4.99 acres; must be designated on the dust control permit; and must have basic certification.
- ✓ dust Control Coordinators are required on projects that disturb five or more acres, must be designated on the dust control permit, and must have certification for attending the Comprehensive Dust Control training.
- ✓ permit holders who do not give site representatives and Dust Control Coordinators authority to act are subject to enforcement under Rule 310.
- ✓ a Notice of Violation can be issued if a Dust Control Coordinator does not have full authority to ensure that dust control measures are implemented on site.

A Dust Control Coordinator is required whenever the disturbed area reaches or exceeds five acres. In some instances, a permit area may develop such that fewer than five acres of disturbed surface remain in one phase of the project but there are additional permitted, yet undisturbed, phases waiting to be developed.

In this scenario, a Dust Control Coordinator would be required onsite unless the undisturbed phases were clearly identified in the dust control permit, as well as the Dust Control Plan, and the undisturbed area on the project site was clearly marked with access restricted to those project phases not yet active.

When fewer than five acres of land (in all phases of the project) remain to be disturbed, then the Dust Control Coordinator requirement would no longer apply if previously disturbed areas have been stabilized and notice of stabilization has been provided to the department.

Helpful Hint

Courtesy inspections and industry presentations given by department staff represent another opportunity for training. If you organize an event such as a gathering of your firm's project superintendants, it is possible to schedule an inspector to provide a presentation on aspects of Rule 310.

Note: industry presentations are free of charge but do not take the place of formal training certifications.

Only approved trainers can provide certified dust control training

The department's director has the authority to suspend or revoke the Basic or Comprehensive Dust Control certification for cause. For cause means:

- ✓ inappropriate ethical activities or conduct associated with the dust control program or
- ✓ repeated failure to follow training requirements

Section 4 - Permit Signage and Recordkeeping

Maricopa County Air Quality Department

Project Information Signs (Rule 310 §308)

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.
- ✓ current dust control permit number.
- ✓ name and 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

Should the official complaint phone number ever change, the department will send a notice to all permit holders providing the new number.

When to Update the Sign

You must change your project information sign to reflect changes to the dust control permit or Dust Control Plan, such as:

- ✓ a new contact name or phone number.
- ✓ a change in the project name.
- ✓ a new permit number.

Where to Post the Sign

The main entrance to a site is that which would normally be used by employees and subcontractors when gaining site access. As a project matures, an additional entrance may be established.

The purpose of the signage requirement is to provide the public with information about the permit status of the project, and the sign should be posted where that information is most prominently observed by members of the public.

The project sign requirement is based on the original acreage permitted. A sign is still required even if a project is reduced to under five acres.

Helpful Hint

To avoid uncertainty when multiple entrances are used, a permit holder is encouraged to place signs at each site access point, especially where another project entrance is more visible to the public. However, only one sign is required by Rule 310.

If only one sign is posted, it should be placed at the location that would be viewed by members of the public as the main entrance to the site.

ACME ESTATES, AZ123 DEVELOPMENT
PERMIT NUMBER 144501

CONTACT: ANITA PERMIT (602) 000-000

DUST COMPLAINTS?
CALL THE MARICOPA COUNTY
AIR QUALITY DEPARTMENT
(602) 372-2703

Permit Sign Example

Helpful Hint

Don't forget to change the project information sign to reflect changes in your permit.

For example:

- changes to the project name or permit holder name
- a new permit number
- contact information for the project's responsible official

Recordkeeping (Rule 310 §502)

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 within 48 hours).

Each day a self-inspection by the permit holder must be conducted with notes taken to document observations. This is an important document and can be used to show that site conditions have been carefully controlled. Critical information that is required by Rule 310 includes:

- ✓ observations of damp and crusted soil.
- ✓ trackout conditions and actions taken to clean up trackout.
- ✓ daily water usage (note how water is applied, how often, and the amount - a rough approximation is acceptable).
- ✓ dust suppressant application.
- ✓ when street sweeping occurred.
- ✓ maintenance of trackout controls (what kind and when installed).
- ✓ what kind 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 company or person who did the training. Keep copies of training certificates on file.
- ✓ all supporting documentation (e.g., street sweeping or water truck receipts).
- ✓ types and results of all test methods conducted.

Water Meter

Document Retention

Records must be retained consistent with the following timeframes and whichever is longer will apply:

- ✓ two years from the date the record was initiated, as long as operations are ongoing. For example, a five-year project only needs a two-year record log.
- ✓ all records must be retained for six months following termination of site operations.

Helpful Hints

- ✓ While no exact format is prescribed for recordkeeping, a three-ring binder is recommended for paper records.
- ✓ Electronic recordkeeping, used by some permit holders, is a valid form of recordkeeping.
- ✓ A scanned copy of the Dust Control Permit accessible on a computer is an acceptable way to maintain an on site copy.

Maricopa County Air Quality Department

Recordkeeping (Rule 310 §502) cont'd

This example of a completed record keeping form can be found online at:
http://www.maricopa.gov/aq/divisions/compliance/dust/docs/pdf/CompletedSampleDailyLogV1.0-25Jun08.pdf

SELF INSPECTION AND CONTROL MEASURE APPLICATION — **MCAQD PERMIT #: E089999**

DATE		Trackout Control Device	Trackout	STABILIZATION Parking/staging	Unpaved Roads	Open Areas	Storage Piles	Water Application	Water Supply
1-May-08	Self Inspection	0730: Exit 2: 1" river rock, 3" deep, 55' long, 20' wide. Exit 1: paved.	1200: Trackout measured 20 ft. 1315: 50 ft. phoned street sweeper.	0845: Visibly moist, visible emissions < 20% opacity	0630: No visible emissions observed. 1200: No visible emissions.	0845: Soil crust. 1315: Some crust break down, called in water truck with side sprayer. Silt fence in place.	0845: Visibly moist, no visible emissions. 1315: Visible soil crust.	0430: Observed pre-watering entire site (10k gal truck). 0845: Watering continues: 1 water pull for mass grade, 1 water buffalo.	1 million gallon water pond full at 8:45 AM
		P / C	P / C	P / C	P / C	P / C	P / C	P / C	P / C
	Control Measure Application - Method, Frequency, Intensity	Maintenance	Cleaning	Moisture / Crust	Moisture / Crust	Moisture / Crust	Moisture / Crust	App. Equipment	Source
		0630: Removed Exit 1 gravel pad, transitioned to asphalt. Exit 2 gravel refreshed.	1200: Brooms. 1330: contingency - street sweeper arrived.	0830: Applied 10K gals. water. 1000: Implemented Contingency, applied gravel. **Primary not enough.**	Stabilizer applied 21 March 08.	Applied 30K gals. Water and Installed silt fence to restrict access 10March 08	0800: 5K gals. water applied.	Total daily application of 45K gals.via water pull and water buffalo. Brooms and street sweeper.	Water Pond and 4 - 3" metered hydrants
DATE		Trackout Control Device	Trackout	STABILIZATION Parking/staging	Unpaved Roads	Open Areas	Storage Piles	Water Application	Water Supply
2-May-08	Self Inspection	0500: Asphalt TOCD. In good repair, no maint. needed. No haul operation scheduled.	0500: No trackout. 0900: 20' of trackout on Central Ave at East Exit.	0500: Pea gravel in place, no bare spots or need for refreshing. 1500: Observed visible emission < 20%.	0500: Speed limit signs in place. 0530: Observed trades vehicles in excess of 20 trips, began contingency plan.	0500: Soil crust (temp. inactive areas), visible moisture in active disturbed areas.	0500: Visible soil crust on all spoils piles. 0900: Visible soil crust, no spoils activity.	0500: 2 water trucks operational	0500: One 3" metered hydrant, operational.
		P / C	P / C	P / C	P / C	P / C	P / C	P / C	P / C
	Control Measure Application - Method, Frequency, Intensity	Maintenance	Cleaning	Moisture / Crust	Moisture / Crust	Moisture / Crust	Moisture / Crust	App. Equipment	Source
		Asphalt TOCD. In good repair, no maintenance needed.	0900: Swept 20' of trackout manually.	0500: No action required. 1530: Sprayed area with water at end of work day.	0500: No action. 0530: 25K gal. water application.	0430: Pre-watered all active and inactive disturbed areas. (35K gals)	0500: No action required. 0900: N/A	Total daily water application 110K gals. Brooms and street sweeper for trackout clean up.	Metered hydrant and Klein tank full at end of day.
DATE		Trackout Control Device	Trackout	STABILIZATION Parking/staging	Unpaved Roads	Open Areas	Storage Piles	Water Application	Water Supply
02 May 08 cont.	Self Inspection	1530: Asphalt TOCD. In good repair, no maint. needed. End of work day.	1530: Observed 150 feet of trackout (Central Ave Exit).	N/A	0900: Haul road dry, > 20% visible emissions, phoned water truck.	0530: Inactive areas crusted, active areas drying out, phoned water truck, to stay in area all day long.	1100: Large spoils pile in SWC disturbed, partially crusted, phoned water buffalo. 1530: Visibly wet.	N/A	N/A
		P / C	P / C	P / C	P / C	P / C	P / C	P / C	P / C
	Control Measure Application - Method, Frequency, Intensity	Maintenance	Cleaning	Moisture / Crust	Moisture / Crust	Moisture / Crust	Moisture / Crust	App. Equipment	Source
		Asphalt TOCD. In good repair, no maintenance needed.	1545: Mr. Dirt street sweeper cleaned (Central Ave).	N/A	0900 - 1530: 10K water truck devoted to haul road. (50K gals total application).	0545: 60K gals water application to active areas through end of work day.	1100: 5K gals applied to large spoils pile at SWC. 1530: No action required.	N/A	N/A

Example Recordkeeping Form

Section 5 - Accessible Areas

Maricopa County Air Quality Department

Areas that are Accessible to the Public

The definition of "areas accessible to the public" is "any paved parking lot or paved roadway that can be entered or used for public travel primarily for purposes unrelated to the dust generating operation." To determine whether an area meets this definition, consider the following:

- ✓ any paved area with local non-construction traffic is considered accessible to the public.
- ✓ to ensure that an area is closed to the public it must be clearly posted (i.e., by using a sign that states "Construction Traffic Only"). *Any place on a site where the area under construction and the area open to the public is indistinct will be considered an area accessible to the public.*
- ✓ sidewalks are considered paved areas accessible to the public, unless they are barricaded or marked off with signage. Trackout on sidewalks will not be included in the cumulative distance trackout calculation; however, trackout on sidewalks must be removed by the end of the workday.
- ✓ parking lots, including those in strip malls and churches, are always considered areas accessible to the public unless marked otherwise with signage to restrict public access.

The use of signs/barricades/ropes/fences can help to define a controlled area. While the use of yellow rope or tape to separate the area is not required, it has practical value in ensuring that the area is seen to be separate from other areas where the public has ready access.

Helpful Hint

The public is considered to have access to any paved area on your site unless access is clearly and effectively restricted. A sign and physical restrictions (e.g., rope barriers, cones) may be needed to ensure that the public will avoid an area.

Helpful Hint

Trackout extending from your project onto paved areas off site is a common violation.

If an area is restricted and trackout is present, it will not be cited as a trackout violation.

Signage restricting access to paved area

Section 6 - Working on Other Sites

Subcontractors

Subcontractor Registration

Subcontractors are hired by a permit holder to perform various tasks on a construction site. The department requires that subcontractors accessing sites covered by a dust control permit obtain registration. This applies to any subcontractor engaged in dust-generating activities (e.g., driving on roads, landscaping, carpentry, etc.)

Registrations are good for one year from the date the registration is approved/issued.

While the permit holder is responsible for all site activities that may result in a violation of the provisions of Rule 310, subcontractors may, under certain circumstances, also be held accountable.

Displaying Subcontractor Registration Numbers

Anyone who enters an area that is subject to a Rule 310 dust control permit must obtain and a subcontractor registration number and follow the requirements of each project's dust control permit and Dust Control Plan.

The subcontractor registration number must be displayed on a jobsite. Methods of displaying the subcontractor number may include:

- ✓ a sign at the project entrance.
- ✓ painting it on a vehicle.
- ✓ a paper sign affixed to the vehicle or equipment.
- ✓ a magnet sign affixed to the vehicle, e.g., on the door or bumper.
- ✓ a rear view mirror hanger.

Subcontractors are Subject to Enforcement

A subcontractor is required to abide by the provisions of the dust control permit and Rule 310 and subcontractors will 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.
- ✓ 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.

While a subcontractor will be held responsible for their compliance with Rule 310, the responsibility of the permit holder and the actions of a subcontractor can be difficult to separate. Factors that will be taken into account in determining which party is responsible include, but are not limited to whether the:

- ✓ subcontractor was informed of their obligations by the permit holder.
- ✓ subcontractor's actions can be clearly documented.
- ✓ subcontractor acted in disregard of established site protocols.
- ✓ subcontractor's actions were observed by a department inspector.
- ✓ subcontractor can be readily identified.

Subcontractors will be held accountable for their violations if the subcontractor can be easily identified ***and*** the permit holder has established appropriate fugitive dust controls. In accordance with the department's subcontractor policy (dated April 18, 2006, and included in the appendices), it should be noted that the permit holder will be cited for a violation caused by a subcontractor unless the inspector can confirm that the permit holder did not cause or contribute to the violation by a subcontractor and that a subcontractor ignored controls put in place by the permit holder.

The need for clear documentation of a violation by a subcontractor

Subcontractor registration number located on vehicle bumper

Maricopa County Air Quality Department

Subcontractors (cont'd)

is essential to avoid the issuance of an NOV to the permit holder. For example, a subcontractor who has removed a barricade to avoid going over a trackout control device would be issued a NOV. The inspector would have to observe the violation occurring in order to issue the NOV to the subcontractor. In the above scenario, if the subcontractor was not observed and the surface was no longer stable as a result of the subcontractor's actions, then the permit holder would be issued a violation for unstabilized soil (assuming the soil failed the applicable stability standard).

Ultimately, a permit holder is responsible for all activity that occurs within a permitted area—including activities that are performed by subcontractors. While the permit holder is responsible for the actions of subcontractors and ensuring they conform to department rules when acting on their behalf, the department reserves the right to pursue enforcement action against the subcontractor and/or the permit holder depending on the circumstances and available evidence.

Helpful Hints

Although not required by the rule, subcontractors are encouraged to have their employees complete the comprehensive dust control training (six-hour course).

Coordinate with the department to schedule a dust control presentation.

Permit holders are encouraged to ensure that their contractual agreements with subcontractors include:

- ✓ provisions for the subcontractors to conduct their activities in a manner that is in compliance with department rules.
- ✓ provisions that hold the subcontractor liable for any penalties issued by the department that may be the result of subcontractor activity.

Helpful Hints

It is also helpful to review the approved Dust Control Plan, as well as the controls that have been established, with subcontractors prior to starting work.

Clear communication with subcontractors and active monitoring of their on-site activity can be effective methods to avoid creating conditions that could result in the issuance of an NOV.

A courtesy inspection could be held in conjunction with a meeting where subcontractors are invited.

The department's website contains a useful set of Frequently Asked Questions about subcontractor registration at

http://www.maricopa.gov/aq/divisions/compliance/dust/subcontractorRegistration.aspx

Subcontractor registration is not required for the following activities:

- ✓ lunch trucks or food vendors
- ✓ waste management trucks
- ✓ vendor/supplier delivery trucks (except import, export and stacking operations and operations using ancillary motorized equipment, such as a forklift)
- ✓ regulatory agencies

A permit holder cannot delegate primary obligations of the permit to a subcontractor to avoid compliance responsibility.

A permit holder may secure a subcontractor to perform activities within a permit area that are considered to be primary permit obligations. For example, a subcontractor may be hired to install or maintain a trackout control device. In the event that a violation occurs (for example, the trackout control device is found to be improperly maintained such that it is no longer effectively controlling trackout) and the violation is due to the inaction or untimely action of the subcontractor, the permit holder is responsible for compliance and subject to the penalties authorized by law. ***The permit holder is responsible for ensuring that onsite operations are being conducted in compliance with the permit. This obligation cannot be transferred to a subcontractor.***

Note: utilities are not considered to be subcontractors when operating under their own block permit.

Block Permits and Utility Responsibilities (Rule 310§404)

The purpose of the block permit is to allow municipalities, governmental agencies, and utilities to conduct similar activities at multiple sites across the county. Covered activities include routine operation and maintenance of urban infrastructure, as well as the expansion or extension of that infrastructure such as roads, utilities (e.g., pipelines and electric substations) and other public rights-of-way. This category of permit can only be issued to municipalities, governmental agencies, and utilities. While the permit is held by the authorized block permit holder, subcontractors to the authorized permit holder may operate under the cover of the permit as would the employees of the permit holder.

The block permit will apply to those locations that are listed in the permit application. To conduct work at a location not listed in the application, the block permit holder must notify the department of the intent to work in a new location at least three days in advance of the planned activity. The notice must include information describing the location and the anticipated start date of the work.

New construction of infrastructure that is not an extension of an existing system must be covered under a new dust control permit.

Activity Occurring at Locations Not in the Block Permit

For any project not listed in the Dust Control Block Permit application, the applicant is required to notify the department at least three working days in advance of initiating the activity.

Similarly, at new subdivisions or commercial developments, a utility will operate under its block permit and is required to notify the department of its intention to work on a specific property. As with other areas, a block permit holder is required to provide the department with notification of its intent to operate at a location not previously identified in its block permit. Notification must be provided in writing and with three working days advance notice.

Enforcement

The permit holder retains responsibility for all work conducted within the area covered by the permit. However, if a utility causes a non-compliant condition, the utility can be cited in accordance with Rule 310. This includes the obligation to ensure that areas disturbed during utility work are adequately stabilized. A utility is obligated to meet minimum stabilization requirements of Rule 310.

Utility access onto areas covered by a dust control permit appears to pose a special challenge. **While the block permit holder is obligated to maintain stability conditions when accessing a dust control permit holder's area, the permit holder is accountable for all site conditions within their permit area. A block permit holder can be issued a violation for not restoring a disturbed area to its former stabilized condition.**

Some block permit holders may require contractors to obtain their own dust permit and Dust Control Plan. Remember to allow at least 14 days for the department to process a new permit application.

Rule 310 specifies that a Dust Control Block Permit application should include a map of the owner's and/or operator's service areas and a list of sites that are 0.1 acre or greater.

This activity resulted in a notice of violation being issued to a block permit holder

Section 7 - Trackout

Maricopa County Air Quality Department

Trackout Rule 310 §306

Trackout is one of the most frequently cited violation by the department's inspectors. ***Controlling trackout must be a priority.*** The department defines trackout as:

"Any and all bulk materials that adhere to and agglomerate on the surfaces of motor vehicles, haul trucks, and/or equipment (including tires) and that have fallen or been deposited onto a paved area accessible to the public."

Trackout Clean-up Requirements

Trackout must be removed immediately when the cumulative distance of trackout reaches 25 feet either in one segment or reaches 25 feet when combined with smaller segments. The term "immediately" is viewed as when the trackout occurs. The expectation is that trackout that extends 25 feet (either alone or in combined segments) will be cleaned up immediately following deposition on the roadway. The presence of trackout at or exceeding 25 feet is cause for the issuance of an immediate NOV.

Lesser amounts of trackout (less than 25 feet in cumulative length) can be cleaned up at the end of the workday. Note: Under the right circumstances, even a small amount of trackout could potentially result in an opacity violation if it is driven over or otherwise disturbed.

"Trackout is an obvious indicator of potential non-compliance. Taking the time to assess the presence and scope of trackout and whether immediate attention is required is an essential practice to maintain compliance"

—Air Quality Inspector

Sidewalk Trackout

Active trackout controls are required at work sites with a disturbed surface greater than two acres or hauling any amount of bulk materials off-site or 100 yd^3 or more of bulk material on site, regardless of acreage. (See the Trackout Controls in Section 7 for details about trackout control options).

The Difference between Trackout and Staining

Trackout is the presence of material deposited on a road surface. Trackout can become airborne particulate matter when vehicles pass over and entrain the trackout into the air. In contrast, staining on a road surface is not considered to be trackout. While staining may indicate that trackout may have been present at some time in the past, staining itself is not considered trackout under Rule 310, nor is it a violation.

Helpful Hint

Plan ahead and anticipate that trackout will occur.

The presence of trackout greater than 25 feet during working hours, even though it may be in the process of being cleaned up, is subject to an NOV. While an inspector has discretion to evaluate the on-site conditions and actions of the permit holder, generally, the greater the extent of trackout, the higher the probability that an NOV will be issued. *After working hours, the presence of any trackout will result in the issuance of a Notice of Violation.*

Wet Trackout

Maricopa County
Air Quality Department

Trackout (cont'd)

Helpful Hints

As a practical matter, it may be easier to clean up trackout immediately rather than measure it to ensure there is less than 25 feet in distance. The presence of trackout, however limited in extent, can result in an inspection based on field conditions.

Remember: erosion is considered the same as trackout and must be managed accordingly.

Soil found on sidewalks and in gutters is trackout. Soil on sidewalks will not count in the cumulative distance calculation while trackout in gutters will.

Staining

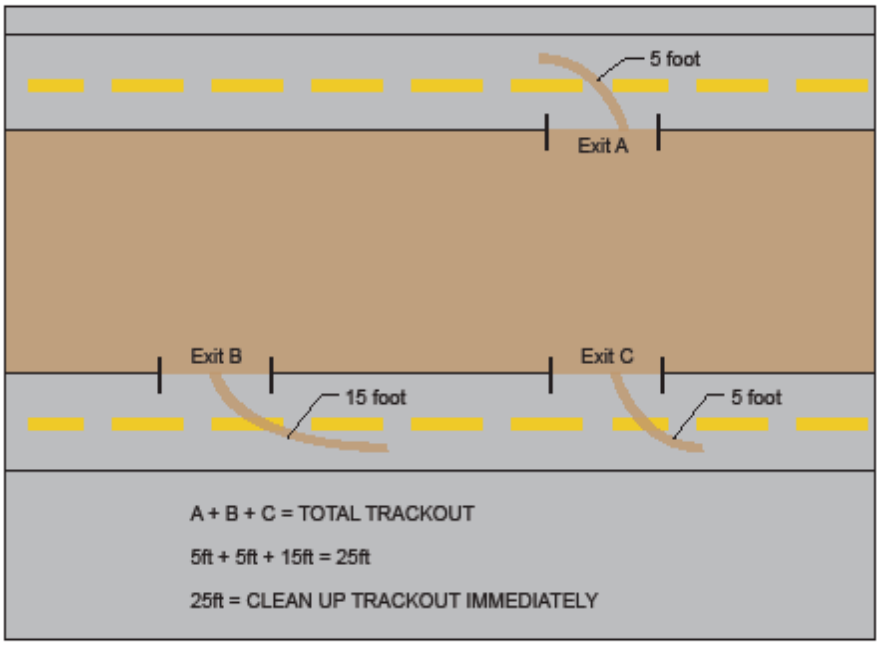
Helpful Hint

Include the cost of trackout control and maintenance in your bid.

Trackout

Maricopa County Air Quality Department

Trackout (cont'd)



Calculating cumulative distance

Measuring Trackout

The distance of individual trackout paths originating from a permitted area are combined to determine compliance. Here, three trackout paths cumulatively total 25 feet.

When trackout reaches a cumulative distance of 25 feet it must be cleaned up immediately.

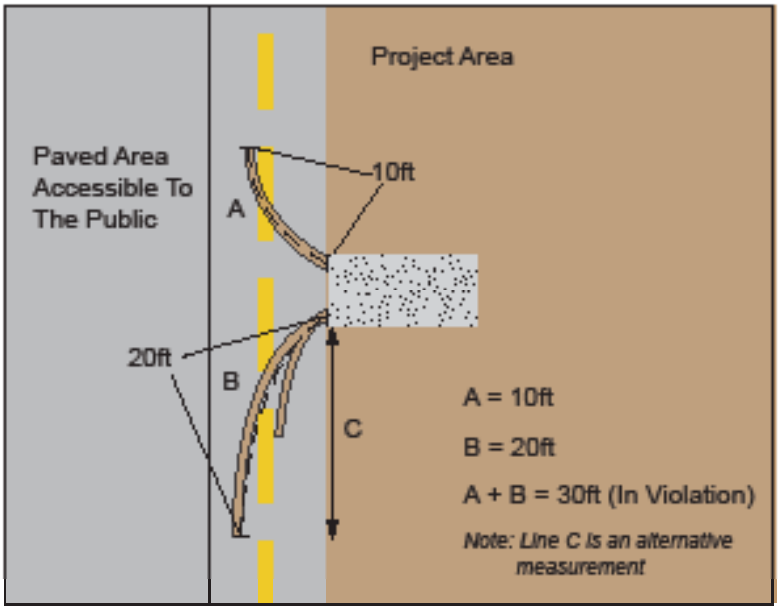
Trackout is measured from an exit onto a paved surface and along the path of trackout to the point where it ends. This may follows the actual curved path of trackout or the horizontal distance may be used instead (especailly where traffic/safety is a concern). Line C in the graphic below is an example.

The graphic at right shows trackout extending from the exit of a permitted area. The gray rectangle represents a gravel pad.

While trackout can be measured by using a surveyor's wheel, on busy streets, the inspector may measure the distance along a line adjacent to the road (represented by line C) to determine trackout length.

An inspector may also use paces or a range finder to measure distance.

In both examples on this page, trackout has reached or exceeded 25 feet in cumulative distance and must be cleaned immediately.



Measuring trackout

Maricopa County
Air Quality Department

Trackout Controls

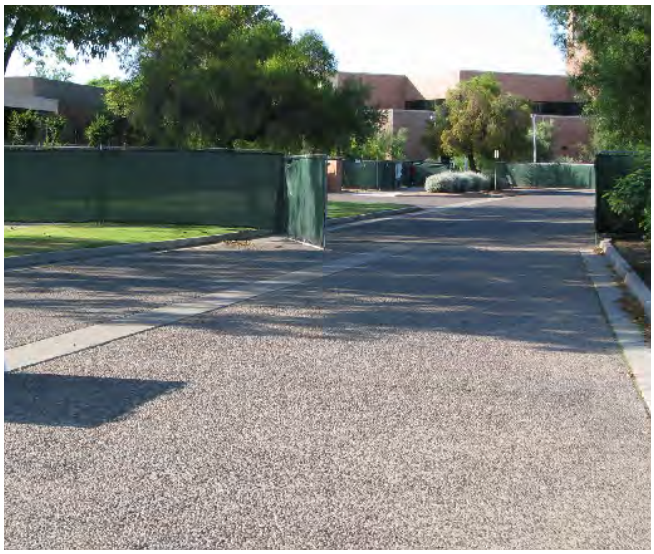
Several trackout control options are available. At all exits to paved areas accessible to the public at least one of the following controls must be used:

- ✓ gravel pads: consisting of a layer of washed gravel, rock, or crushed rock, at least one inch in diameter; 30 feet wide (unless impracticable), 50 feet long (or as long as the longest haul truck). If the unpaved surface exit does not have an adequate width to install a 30-foot wide gravel pad, then the width of the gravel pad must cover the full width of the unpaved surface exit and be adequate to prevent trackout.
- ✓ a grizzly (20 feet long; bars must be three inches tall and six inches apart).
- ✓ a paved area: 20 feet wide; 100 feet long. (Note: the entire length of pavement ***must*** be within the permitted area to count as an effective control. A shorter distance of pavement within the permit area cannot count unless pre-approved by the department). Note: a paved area that is blocked to public traffic may also be used in whole or in part of this requirement.
- ✓ a wheel washer: use a standard wheel wash system.
- ✓ pressure sprayers.

Gravel pad

Grizzly

When trackout controls are required, if a vehicle exits a permitted area and fails to use a designated trackout control system (for example, by driving around a trackout control device or leaving the permit area at a non-designated exit) the permit holder and/or subcontractor (if applicable) are subject to receiving an NOV even if no trackout was deposited on the paved area accessible to the public.



Pavement

Maricopa County Air Quality Department

Trackout Controls (cont'd)

Controlling and Changing Exits During Construction Phases

Managing the flow of traffic entering and leaving a permit area represents one of the prime challenges faced by a site superintendent trying to ensure the integrity of their dust controls. For some drivers and subcontractors, it can be tempting to take a short-cut across a vacant parcel to a paved road rather than winding back some distance to the designated exit. While the actual act of crossing disturbed land in a vehicle is not prohibited, it does trigger various provisions of Rule 310—for example, if there are many vehicles using an unauthorized exit, a new unpaved access road has been created.

Trackout is likely to be associated with an unauthorized exit and the absence of a trackout control device at an unauthorized exit is an NOV waiting to happen.

Be sure to...

Place trackout control devices at all designated exits from the permit area onto an area accessible to the public if:

- ✓ the disturbed area is two acres or more ***or***
- ✓ you are hauling any amount of bulk materials off-site or 100 yd^3 or more of bulk material onto a site, regardless of acreage.

Helpful Hint

When exits are changed at the project site, you must update your Dust Control Plan.

Helpful Hint

Questions to ask yourself:

- ✓ is a trackout control device in place and effective?
- ✓ does my trackout control device need maintenance?
- ✓ do I adequately monitor trackout?
- ✓ did I clean up trackout at the end of the day?

Gravel pad installation at exit

Section 8 - Stabilizing Your Site

Maricopa County Air Quality Department

Control and Stabilization (Rule 310 §304 and §305)

Ensuring that disturbed areas within a permit area are stabilized is a primary requirement of Rule 310. Remember, the site must be stabilized 24/7, including holidays, nights, and weekends. There are two distinct stabilization standards that apply in two separate circumstances—those that are active and those that are inactive for extended periods. An area covered by a permit may contain active and inactive areas at the same time.

Pre-disturbance

Before starting work, conduct a "site prep"— pre-water the site or phase work to the smallest portion of the area that can be affected at any one time. If you have chosen phasing as a control measure, then project phases should be clearly identified in the Dust Control Plan.

Work Phases

Within a permit area, there may be several defined areas (representing project phases). One phase may be active with ongoing surface disturbance while another phase has not yet been disturbed. Ensure that areas not yet disturbed are clearly demarcated, identified in the Dust Control Plan, and access is restricted.

When phasing work, it is important to meet the stabilization requirements of Rule 310 §304.3 for areas that have been disturbed but are not being actively worked.

Helpful Hint

Keep all disturbed areas visibly damp/moist or meet one of the stabilization standards.

Operations

Stabilization and fugitive emission control is an ongoing activity. The Dust Control Plan should provide three fundamental stabilization practices *while a site is being actively worked (*Rule 310 § 305.11):

- ✓ apply water or a dust suppressant (the soil must be visibly moist) **or**
- ✓ maintain soil moisture content at 12%* ***or***
- ✓ install wind fences/barriers ***and*** one of the above.

* Moisture content is determined by using ASTM Method D2216-05.

During dust-generating operations, the generation of a limited amount of dust is allowed. However, dust emissions can never exceed 20% opacity.

If dust emissions are present, it may be an indicator that the area is not sufficiently controlled and that the area requires additional attention.

Helpful Hint

Maintaining moist disturbed surfaces is an ideal site management practice.

Within permitted areas there will likely be disturbed areas which are not currently being worked. In those areas, stabilization should have been achieved as tasks on disturbed surfaces were completed. The following standards apply (Rule 310 §304.3):

- ✓ maintain a soil crust.

Alternatively, one of the following standards could apply in place of a visible crust:

- ✓ maintain a threshold friction velocity (TFV) of 100 cm/second or higher.
- ✓ maintain a flat vegetative cover equal to at least 50%.
- ✓ maintain a standing vegetative cover equal to or greater than 30%.
- ✓ maintain a standing vegetative cover that is equal to or greater than 10% when the TFV is equal to or greater than 43 cm/second.
- ✓ maintain a percent cover that is equal to or greater than 10% of the non-erodible elements.
- ✓ comply with an alternative test method approved by the Control Officer.

Control and Stabilization (Rule 310 § 304 and § 305) (cont'd)

Control Measures on Disturbed Areas (no activity for 30 Days or longer)

When a disturbed area will remain in its current disturbed state (with no futher work taking place) for a period of 30 days or longer, achieve one or more of the following (Rule 310 §305.11(c)):

- ✓ cover the area using gravel, pavement, or by using a suitable dust suppressant.
- ✓ establish a vegetative ground cover.
- ✓ pave, apply gravel or apply a suitable dust suppressant other than water **or** establish a vegetative ground cover **and** restrict vehicle access.
- ✓ apply water and prevent access (using signs, curbing, or barricades) sufficient to prevent trespass. Note: the specific measures intended to prevent trespass must be approved by the Control Officer.
- ✓ restore an area to a substantially similar condition (vegetative ground cover and soil characteristics) as that of surrounding or nearby undisturbed native conditions.

This stabilization standard should be achieved within 10 days following the completion of the dust-generating operation.

Project nearing completion

Trespass

While a permit is still effective, the permit holder is responsible for any disturbance that occurs as a result of illegal trespass. If an area is disturbed after final stabilization and the permit is still in effect, the permit holder is obligated to ensure that stabilization is restored. If disturbed areas that are not stable are identified during an inspection, a violation can be issued.

Soil clearly without a visible crust

Section 9 - Visible Emissions

Visible Emissions (310 §303)

Essentially, Rule 310 is about ensuring that dust (particulate) emissions are minimized. Emissions are subject to two separate standards, depending on whether the emissions are observed onsite or off-site.

Onsite Visible Emission Opacity Limits

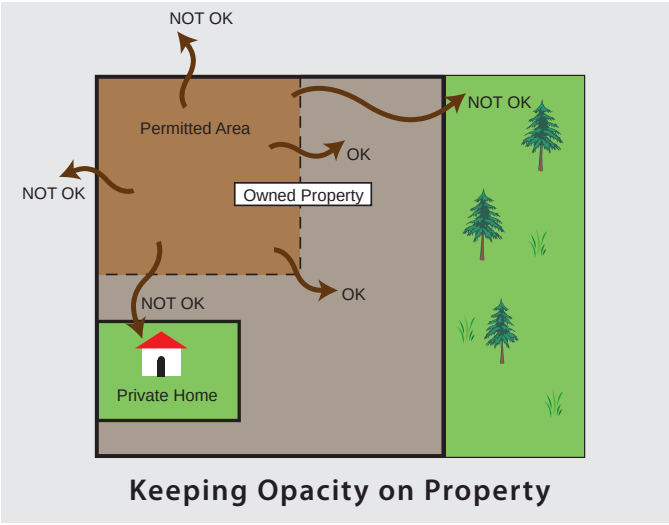
- ✓ Within the boundary of the area covered by the permit, visible emissions can never exceed 20% opacity.

The method used to determine whether visible emissions exceed 20% opacity is found in Appendic C of the Maricopa County Rules and Regulations for Air Pollution Control. This method consists of the average of 12 observations of five seconds each taken over a period not longer than one hour. As a practical matter, the 12 observations will most likely be completed over the period of a few minutes.

Suspect emissions >20% opacity

Visible Emissions Beyond the Property Line

- ✓ A property line is that demarcation between the area contained within a dust control permit and the area outside of the permit, when the area outside the permit is owned by an entity other than the permit holder.
- ✓ It is possible that, as a project matures, some areas within a permit area will transition to private ownership and will no longer be part of the permitted area (e.g., parcels within a housing subdivision that have been sold to homeowners). Emissions that extend from a permitted area onto privately held parcels violate Rule 310.
- ✓ The standard for visible emissions beyond the property line of an area covered by a permit is simple—none are allowed. According to Rule 310 § 303.1, visible emissions are measured using the standard that there shall be no visible emissions exceeding 30 seconds in duration during any 6-minute period using EPA Reference Method 22.
- ✓ When dust-generating activity occurs within 25 feet of the property line, visible emissions beyond the property line are allowed. However, the emissions cannot exceed 20% opacity (see Rule 310 § 303.2(d)).



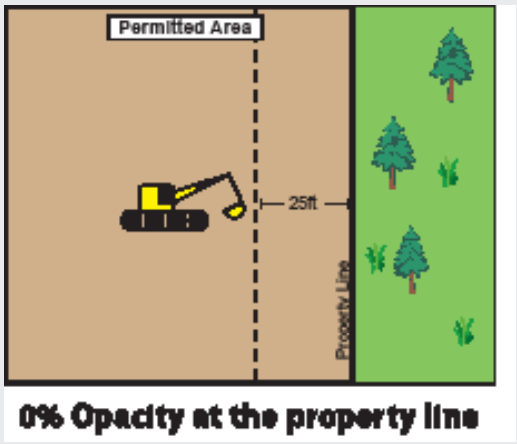
Keeping Opacity on Property

In the figure above, the brown area is covered by a dust control permit. Surrounding this area is an area in gray that is owned by the dust control permit holder. Visible emissions from the permit area are allowed onto this adjacent area since the property is owned by the permit holder - the emissions do not cross a property line. Should the emissions extend further and onto the property designated as a private home or onto the forested area, the emissions are crossing a property line and are not allowed.

Helpful Hints

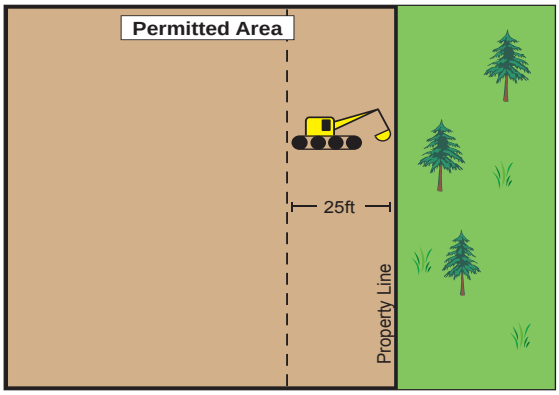
Submitting a clear and accurate map in your Dust Control Plan can help you delineate your property from others.

Visible Emissions (310 §303)



When the emissions originate further than 25 feet away from the property line, no dust emissions are allowed to cross the property line.

In the photo above, dust emissions are being generated but emissions are not visible beyond the property line (beyond the photo frame). Although the on-permit area emissions may exceed the 20% opacity standard (and be in violation), the emissions at the property line boundary may or may not be in compliance. No visible emissions are allowed to cross the property line if they are generated more than 25 feet from the property boundary.



Dust Emissions Beyond Property Line ≤ 20% Opacity

When dust emissions are generated within 25 feet of the property line emissions are allowed to cross the property line provided they do not exceed 20% opacity.

In the photo above, dust emissions are being generated within 25 feet of the property line and are clearly visible into the street. Although visible emissions are allowed beyond the property line, they cannot exceed 20% opacity. Also, in this instance, a serious public safety hazard is created by impairing visbility in a traffic lane.

High Wind Conditions and Visible Emissions (310 § 303.2)

Site Operations During High Winds

High wind conditions have the potential to dramatically degrade air quality. Revisions to Rule 310 adopted by the Maricopa County Board of Supervisors in January 2010 substantially revised the rule language affecting wind events.

The intent of the new rule language is to require escalating controls as winds increase. Ceasing operations is the ultimate control when all else fails. Dust-generating operations must now cease at a lower threshold (e.g., earlier and more frequently).

The previous defintion of a "wind event' has been deleted.

The New Requirement

When wind conditions result in visible emissions that exceed 20% opacity, despite implementation of measures contained in the Dust Control Plan, the following steps must be taken:

First, ensure that all control measures and requirements of the Dust Control Plan are implemented and documented. Next, cease dust-generating operations and stabilize any disturbed surfaces in a manner consistent with Rule 310 § 304.3. *As a practical matter, this will mean maintaining a visible crust or establishing visibly damp/moist soil on disturbed areas during windy conditions.*

Finally, document the cessation of operations and the implementation of control measures and the requirements of the Dust Control Plan. The intent is to document that any visible emissions exceeding 20% opacity are not occurring due to a failure to fully implement the Dust Control Plan.

Visible Emissions Originating from Adjacent Lands

Conditions may arise where winds will drive dust from one property (e.g., a vacant field) across another on which dust-generating operations are occurring under a dust control permit. Normally, visible emissions seen crossing the property line will constitute a violation. However, where visible dust emissions are seen transiting a permitted area and it can be determined that no additional dust emissions were contributed from the permitted area, a violation will not have occurred.

Wind driven dust crossing a road

Section 10 - Onsite Operations

Maricopa County Air Quality Department

Unpaved Parking Lots (Rule 310 §304.1)

As defined in Rule 310 §232, an unpaved parking lot should be designated as such in the approved Dust Control Plan. In addition to vehicle parking, an unpaved parking lot includes the following activities: maneuvering, material handling, or storing motor vehicles and equipment. Automobile impound yards, salvage yards, material handling yards, and storage yards would be considered to be an unpaved parking lot under Rule 310.

While the use of an area for staging or for material storage may be clearly evident, an isolated instance of such use will not cause the area to be designated as an unpaved parking lot.

An unpaved parking lot, as defined by Rule 310, is present when the use of an area by vehicles goes beyond what can be considered to be incidental use.

An area used as an unpaved parking lot should normally be designated in the Dust Control Plan. However, identifying an unpaved parking lot in the Dust Control Plan is not required for an inspector to determine that one is present based on the observed use.

To determine that a disturbed area is an unpaved parking lot requires observations of activities that reflect actual use of the property for an activity similar in scope to those examples provided in the definition.

The definition also contains reference to the term "maneuvering." After-the-fact observation of tire tracks alone on an otherwise empty lot is not sufficient to classify an area as an unpaved parking lot without some supporting evidence that the area has been used in the manner contemplated by the definition.

The following activities constitute incidental use and are not sufficient to determine that an area is being used as an unpaved parking lot:

- ✓ use of an area by a surveying crew.
- ✓ use of an area by a landscaping service.
- ✓ delivery of materials to a home and unloading them (for example, dropping off tile, drywall, or tools), provided those materials are not staged on the disturbed surface.

Unpaved parking lots must meet a specified soil stability standard (silt loading cannot equal or exceed 0.33 oz/ft^2) and operations on the lot cannot generate dust emissions greater than 20% opacity. If silt loading is equal to or exceeds 0.33 oz/ft^2, then the silt content may not exceed 8%. (Note: As a practical matter, there is very little difference between the two values).

Whether an area is considered an upaved parking lot or an otherwise disturbed area, stabilization is always required.

Incidental storage

Unpaved parking lot

"An isolated incident of 'parking, maneuvering, material handling, or storing motor vehicles and equipment' does not convert a vacant area or property in use for the purpose described in the dust control plan into a parking lot." Draft Notice of Final Rulemaking, Page 6

Evidence of multiple vehicle use

The presence of tire tracks alone may not be sufficient to classify an area as an unpaved parking lot. The inspector will rely on judgment and the responses from the permit holder to determine whether the tracks represent incidental use of the area by vehicles.

Maricopa County Air Quality Department

Unpaved Haul and Access Roads (310 §304.2 and §305.7)

Whether marked or unmarked, an unpaved haul or access road is a road within a permitted area that is used to move material, equipment, or people from one point to another. These roads are likely to change location frequently and meeting the stabilization requirements is likely to require close attention.

By definition, an unpaved haul or access road represents a permanent or semi-permanent disturbed area that will require stabilization on an ongoing basis. At all times, visible emissions from unpaved haul/access roads must remain below 20% opacity. Additionally, Rule 310 §304.2 (a) sets silt loading and silt content levels that can never be exceeded. These levels are:

- ✓ silt loading cannot equal or exceed 0.33 oz/ft^2.
- ✓ if silt loading is equal to or exceeds 0.33 oz/ft^2 then the silt content may not exceed 6%.

Under limited conditions, unpaved haul and access roads do not need to meet the silt loading and silt content limits set by Rule 310 §304.2 (a). These limited conditions are:

- ✓ if the Dust Control Plan contains a description of how vehicle speeds will be restricted and a discussion on the number of vehicle trips and the type of vehicles making those trips, ***and***
- ✓ vehicle trips are limited to no more than 20 per day ***and***
- ✓ vehicle speeds are maintained below 15 miles per hour.

Active control measures for unpaved haul/access roads are required. One of the following options ***must*** be implemented:

- ✓ apply water so the surface is visibly moist.
- ✓ pave.
- ✓ apply and maintain gravel, recycled asphalt, or other suitable materials.
- ✓ apply and maintain a suitable dust suppressant other than water ***or***
- ✓ limit vehicle trips and speeds. If you select this option be aware:
  - ▫ vehicle trips must be limited to no more than 20 per day ***and***
  - ▫ vehicle speeds must be maintained below 15 miles per hour.
  - ▫ if vehicle trips and speeds are limited, the Dust Control Plan must provide details of how these measures will be accomplished, including the identification of how many trips are allowed.

Helpful Hint

If you choose the option of no more than 20 trips per day, always keep in mind that a trip to the site with one vehicle and off the site with one vehicle counts as two trips. (10 vehicles in and 10 vehicles out represent 20 trips).

Note: once a project area meets a certain size, the number of trips becomes more difficult to control. Exercising this option implies that a high level of scrutiny will be applied by the inspector to validate limited vehicle usage.

Different control measures may be selected for different areas provided they are clearly identified in the Dust Control Plan.

Signs like this can help reduce dust. Remember, dust emissions cannot exceed 20% opacity, regardless of speed.

Unpaved Haul Road

Helpful Hint

Things to watch for on haul and access roads:

- ▫ while signage is not required, it is helpful.
- ▫ the silt load or content is within acceptable limits.
- ▫ the road is adequately stabilized.
- ▫ visible emissions

Unpaved Haul and Access Roads (cont'd)

Unpaved Roads

An unpaved road is any road, including an "equipment path," used by motorized vehicles. An unpaved road is different from an unpaved haul/access road only by its designated use.

While an unpaved road is, by definition, different from an unpaved haul/access road, control and stabilization of the disturbed area is still expected.

At minimum, an unpaved access road must control visible emissions so that emissions do not exceed 20% opacity, the road surface is kept visibly moist, or a crust has been formed on the surface.

If you choose to limit speeds, the method used must be explained with specificity in the Dust Control Plan.

Keep in mind that, in addition to limiting vehicle speed, dust emissions from vehicles must not exceed the 20% opacity limit.

An unpaved access road can be very short. For example, a driveway located on a nearly completed lot can be considered an access road.

Even a driveway can be an access road

Trackout Control Devices (310 §306.1)

Trackout control devices are required at work sites with a disturbed surface area two acres or larger, at any site where any amount of bulk materials are hauled off-site, and those sites where at least 100 cubic yards of bulk materials are hauled onto the site each day:

At all exits to paved areas accessible to the public at least one of the following controls must be used:

- ✓ gravel pads: consisting of a layer of washed gravel, rock, or crushed rock, at least one inch in diameter; 30 feet wide (unless impracticable), 50 feet long (or as long as the longest haul truck). If the unpaved surface exit does not have an adequate width to install a 30-foot wide gravel pad, then the width of the gravel pad must cover the full width of the unpaved surface exit and be adequate to prevent trackout.
- ✓ a grizzly: (20 feet long; bars must be three inches tall and six inches apart).
- ✓ a paved area: 20 feet wide; 100 feet long. (Note: the entire length of pavement ***must*** be within the permitted area or a restricted area outside the permit area, to count as an effective control. A shorter distance of pavement within the permit area cannot count unless pre-approved by the department).
- ✓ a wheel wash system.

Even the best trackout control device needs maintenance. During muddy conditions the trackout control device can easily clog and become ineffective. Rule 310 §306.1 requires that the trackout control device be properly maintained so that it prevents and controls trackout. If that is not occuring the trackout control device is not in complaince and a Notice of Violation will be issued.

Gravel pad at permitted area entrance/exit

Here a grizzly has been added to the gravel pad as an extra control measure

Helpful Hint

Keep a stockpile of replacement gravel near your trackout control device and use it to refresh the gravel pad when it becomes clogged with mud.

Hauling Bulk Materials (Rule 310 §305.1-3)

Tarped

Untarped and Overloaded

Tarp Sign

The use of haul trucks to move bulk materials from or within a site is regulated. A haul truck can be any of a number of different types of vehicles. For example, a small pick-up, a flatbed truck, an 18-wheeler, a paddle-wheel scraper, a a front-end loader, or a trailer towed by a motor vehicle. The purpose to which the vehilce is used is the determining factor - not the inherent nature or size of the vehicle.

Moving Bulk Materials

If bulk materials are being *moved out of an area* covered by a dust control permit and onto a paved area accessible to the public:

- ✓ the truck's load must be covered by a tarp.
- ✓ the freeboard must be 3 inches or more.
- ✓ the highest point of the load cannot exceed the height of the truck's container.
- ✓ there can be no spillage through holes or seams in the container area.
- ✓ even when the truck is not carrying a load, the exiting haul truck must have a clean cargo bed ***or*** must be tarped or otherwise covered/enclosed.
- ✓ install a trackout control device (there is no lower acreage limit that applies when off-site hauling of bulk materials is occurring).

If bulk materials are moved within a permit area but do not cross a paved area accessible to the public:

- ✓ the speed of an onsite haul truck cannot exceed 15 mph ***or***
- ✓ water must be applied to the top of the load ***or***
- ✓ the load must be covered.

If bulk materials are *moved within a permit area* and a paved area accessible to the public is crossed:

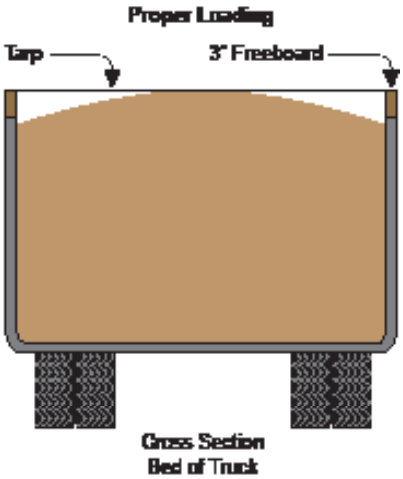
- ✓ the freeboard must be three inches or more.
- ✓ the highest point of the load cannot exceed the height of the truck's container.
- ✓ there can be no spillage through holes or seams in the container area.
- ✓ install a trackout control device at the points where the publically accessible paved area will be crossed (Note: two devices may be required if traffic is two-way).

If bulk materials are moved within a permit area and a paved area accessible to the public is used for a short distance to transit from one portion of a permit area to another, the load must be tarped.

Be aware that spillage and dust emissions from a tarped load while driving on a highway constitutes a violation.

Using any portion of an area accessible to the public (other than simply crossing the road) will require the load to be tarped. There is no minimum threshold distance to travel.

Haul Truck Load Cross Section



Storage Piles, Bulk Material Stacking, Loading and Unloading 310 §305.4 and §305.5

Open Storage Piles (310 §305.5

A pile of bulk materials with a silt content 5% or greater, exceeding a surface area greater than or equal to 150 ft^2 and reaching a height of three feet (at any point) is an open storage pile. By definition, an open storage pile is presumed to have a silt content of 5% or more.

A permit holder has the option to conduct a test to show that the silt content is less than 5%. This test protocol is ASTM Method C136-06.

Managing Open Storage Piles (during active use)

Bulk materials encompass a wide array of materials including earth, rock, sand, gravel, soil, aggregate less than two inches in length or diameter, and demolition debris among many others (the full list is found in Rule 310 §203). When handled, bulk materials are capable of producing fugitive dust emissions.

Prior to stacking, loading and unloading:

- mix the material with water **or** mix with a dust suppressant other than water.

While stacking, loading and unloading:

- apply water **or** apply a dust suppressant other than water.

Managing Open Storage Piles (inactive)

When an open storage pile has been created and material is not being added or taken away, several management options are available, of which one must be used:

- ✓ cover the storage pile with a tarp or other suitable material and ensure that the tarp or other material is sufficiently affixed to prevent its being dislodged by wind.
- ✓ apply sufficient water at necessary intervals to maintain moisture content at 12%.
- ✓ maintain a visible crust.
- ✓ construct a physical partial enclosure (see details on enclosure requirements at Rule 310 §305.5(b) or Rule 310 §305.5(c)) **and** apply sufficient water at necessary intervals to maintain moisture content at 12% **or** maintain a visible crust.

Helpful Hint

Open storage piles are challenging to manage. Extra care needs to be taken to ensure that they are in compliance.

Open Storage Pile

Weed Abatement (310 §305.8)

Where vacant land is being disced, scraped, or bladed to control weeds, control measures must be applied.

These include:

✓ before ***and*** during the activity, water or a dust suppressant must be applied.

After weed abatement is completed, the area that has been disced, scraped or bladed must be stabilized in one of the following ways:

- ▫ apply water.
- ▫ apply a dust suppressant other than water.
- ▫ establish vegetative ground cover.
- ▫ apply gravel.
- ▫ pave the area.

If a regulated weed abatement activity is occurring on an area 0.1 acre or more, a dust control permit is required.

Uncontrolled Dust Emissions During Weed Abatement

Section 11-Permit Administration

Maricopa County
Air Quality Department

When is an Activity Completed? What Do I Need to Do to Close Out a Permit?

A disturbed area under a permit will be considered eligible for permit cancellation when permanent stabilization is achieved. Generally, this will occur when building and landscaping is completed in an area, the area is stabilized, and access is restricted.

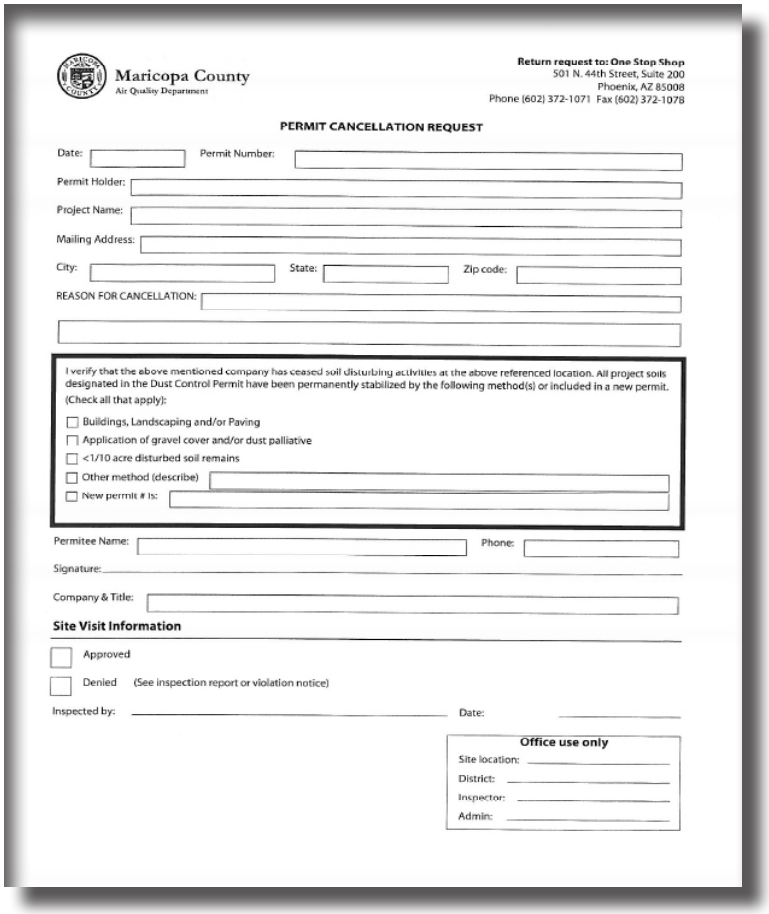
The permit holder should submit a Permit Cancellation Request (PCR) form when the above conditions are met. The filing of a PCR form will trigger a site inspection and the results of the site inspection will determine areas that can be released from permit coverage.

Steps:

1) use the PCR form.
2) attach a final status map of the area and identify any areas being transferred to other permit coverage (if any).
3) ensure the entire area under permit coverage is permanently stabilized in all respects.
4) request a closeout inspection.
5) receive validation from the inspector that the site is stabilized and the permit is ready for termination. (Note: if any violation of Rule 310 is observed during a close-out inspection, especially unstabilized soil, an inspector may issue a Notice of Violation (NOV).)
6) receive affirmation from the department that the transfer is approved. (Note: This affirmation will usually be the completed Permit Cancellation Request (PCR) form signed by the inspector.

Helpful Hint

Forms can be found on the department's website at http://www.maricopa.gov/aq/divisions/compliance/dust/resources.aspx



Maricopa County
Air Quality Department

Return request to: One Stop Shop
501 N. 44th Street, Suite 200
Phoenix, AZ 85008
Phone (602) 372-1071 Fax (602) 372-1078

PERMIT CANCELLATION REQUEST

Date: Permit Number:
Permit Holder:
Project Name:
Mailing Address:
City: State: Zip code:
REASON FOR CANCELLATION:

I verify that the above mentioned company has ceased soil disturbing activities at the above referenced location. All project soils designated in the Dust Control Permit have been permanently stabilized by the following method(s) or included in a new permit.
(Check all that apply):

- ☐ Buildings, Landscaping and/or Paving
- ☐ Application of gravel cover and/or dust palliative
- ☐ <1/10 acre disturbed soil remains
- ☐ Other method (describe)
- ☐ New permit # is:

Permitee Name: Phone:
Signature:
Company & Title:

Site Visit Information

☐ Approved
☐ Denied (See inspection report or violation notice)

Inspected by: Date:

Office use only
Site location:
District:
Inspector:
Admin:

An area is covered by a permit until the permit expires, so, when a project has been completed early, it is important to officially close out the permit. Even though a project is complete and the permit holder may have ended their on site work, they remain responsible for the area covered by the permit as long as the permit is active. As long as the permit is active, the permit holder could receive a notice of violation if the property is inspected and found to be in non-compliance.

Changes in Ownership of Property

A change in ownership of property included in an area under a dust control permit will trigger the need to secure a permit status change—for example, when a portion of a property covered by a permit is being sold or a lease allowing access by the permit holder is being terminated. Since the permit holder will no longer have the legal right to be on the property, a change in permit status is needed.

Steps:

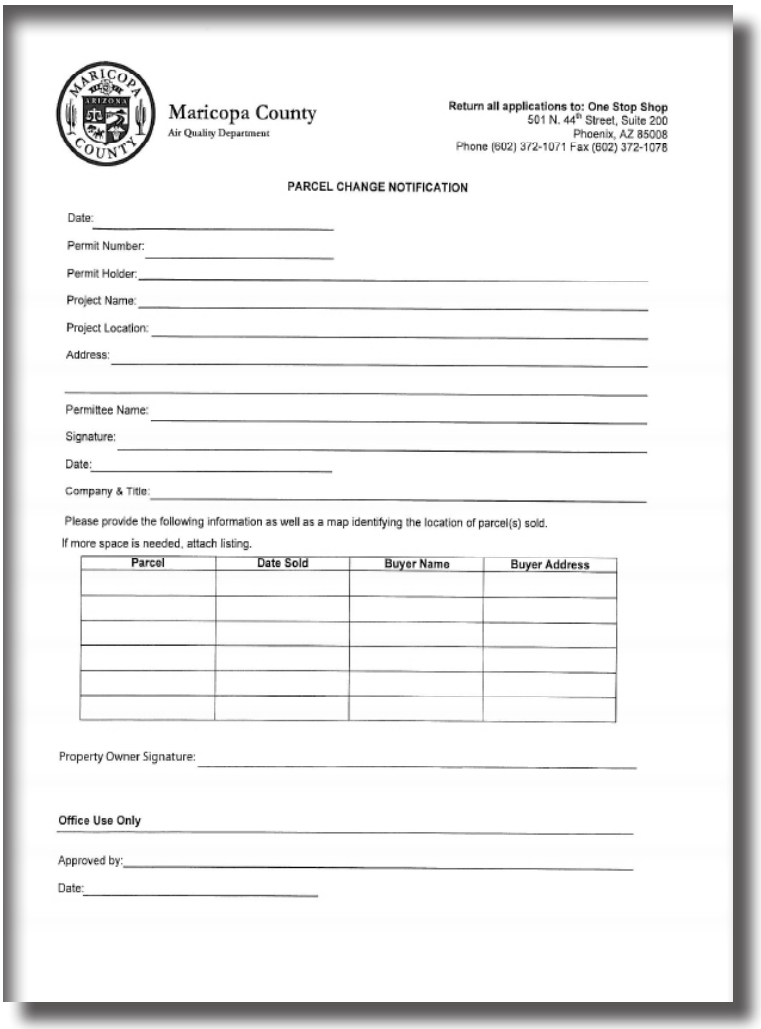
1) use the Parcel Sale Notification Form.
2) clearly note the area to be excluded from the permit on a map accompanying the form.
3) ensure the area to be removed from permit coverage is stabilized in all respects. **This step is critical**—a property owner will not want to assume the liability for an area disturbed by a permit holder unless it meets not only the department's rules, but also any contractual obligations that were made between the parties.
4) an inspection will be conducted by the department to verify on-site conditions.
5) receive validation from the inspector that the site is stabilized and suitable for transfer.
6) document formal transfer and ensure that the new owner has accepted future responsibility of the property.
7) modify physical access and other appropriate measures to ensure that no encroachment occurs.
8) receive affirmation from the department that the transfer is approved.
9) remember, if a project is reduced to under five acres, a project sign is still required.

Helpful Hint

Forms can be found on the department's website at http://www.maricopa.gov/aq/divisions/compliance/dust/resources.aspx

Helpful Hint

Uncertain about what to do in this or a similiar circumstance? Ask the inspector supervisor. You can call the Desk Duty Supervisor at (602) 506-6734.



Maricopa County
Air Quality Department

Return all applications to: One Stop Shop
501 N. 44th Street, Suite 200
Phoenix, AZ 85008
Phone (602) 372-1071 Fax (602) 372-1076

PARCEL CHANGE NOTIFICATION

Date: _____

Permit Number: _____

Permit Holder: _____

Project Name: _____

Project Location: _____

Address: _____

_____

Permittee Name: _____

Signature: _____

Date: _____

Company & Title: _____

Please provide the following information as well as a map identifying the location of parcel(s) sold.

If more space is needed, attach listing.

Parcel	Date Sold	Buyer Name	Buyer Address

Property Owner Signature: _____

Office Use Only

Approved by: _____

Date: _____

Transferring a Permit

Transferring a permit to another responsible party can be accomplished by completing the Permit Name Change Request form.

Steps:

1) complete the Permit Name Change Request form.
2) attach a new dust permit application front sheet with an original signature of the new responsible party.
3) submit the form to the One Stop Shop (Permit Center).

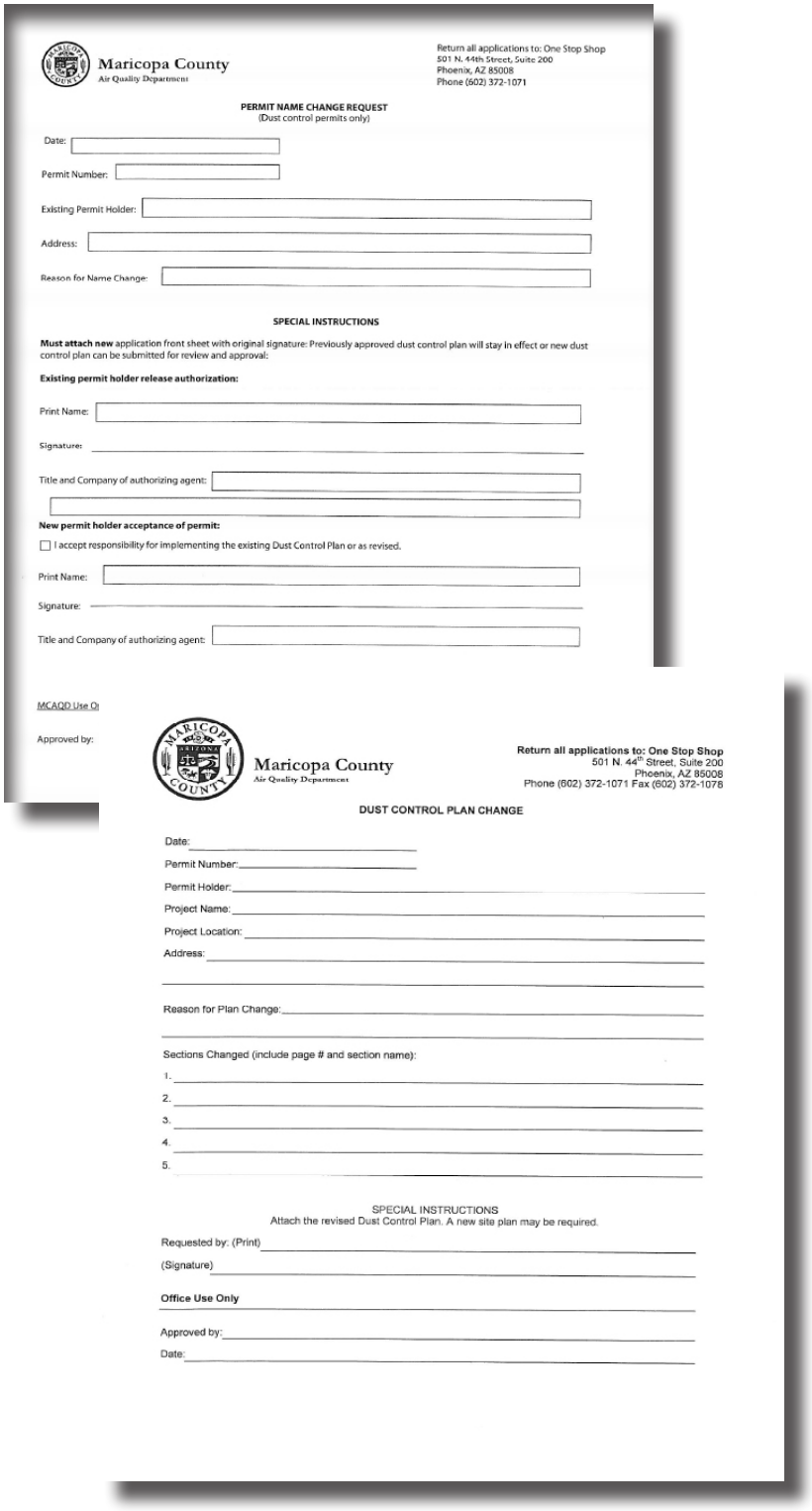
The permit name change will be immediate upon processing of the form. Both responsible parties (the old permit holder and the new) should verify receipt of the form by the department and its being processed before assuming the change is effective.

Once approved, the existing approved Dust Control Plan is transferred to the new permit holder. If revisions to the approved Dust Control Plan are desired, the old approved Dust Control Plan must be followed until a new plan is approved.

While a permit transfer will not automatically trigger an inspection, it is not unusual for an inspection to occur in close proximity to a transfer.

Helpful Hint

Forms can be found on the department's website at http://www.maricopa.gov/aq/divisions/compliance/dust/resources.aspx



Maricopa County
Air Quality Department

Return all applications to: One Stop Shop
501 N. 44th Street, Suite 200
Phoenix, AZ 85008
Phone (602) 372-1071

PERMIT NAME CHANGE REQUEST
(Dust control permits only)

Date:

Permit Number:

Existing Permit Holder:

Address:

Reason for Name Change:

SPECIAL INSTRUCTIONS

Must attach new application front sheet with original signature: Previously approved dust control plan will stay in effect or new dust control plan can be submitted for review and approval:

Existing permit holder release authorization:

Print Name:

Signature:

Title and Company of authorizing agent:

New permit holder acceptance of permit:

☐ I accept responsibility for implementing the existing Dust Control Plan or as revised.

Print Name:

Signature:

Title and Company of authorizing agent:

MCAQD Use O

Approved by:

Maricopa County
Air Quality Department

Return all applications to: One Stop Shop
501 N. 44th Street, Suite 200
Phoenix, AZ 85008
Phone (602) 372-1071 Fax (602) 372-1078

DUST CONTROL PLAN CHANGE

Date:

Permit Number:

Permit Holder:

Project Name:

Project Location:

Address:

Reason for Plan Change:

Sections Changed (include page # and section name):

1.
2.
3.
4.
5.

SPECIAL INSTRUCTIONS
Attach the revised Dust Control Plan. A new site plan may be required.

Requested by: (Print)

(Signature)

Office Use Only

Approved by:

Date:

Changing an Address or an Element of the Dust Control Plan

If a change in address or a more substantial change is required to the Dust Control Plan (e.g., modifying a primary dust control measure), use the Dust Control Plan Change form.

Permit Acreage Increase

Increasing the area covered by a dust control permit can be acomplished by submitting a Permit Acreage Increase Request form.

The form requires the permit holder's name and address, reason for acreage change, and the new acreage.

A new site plan showing the increased site area must be submitted as well as the appropriate fee corresponding to the additional acreage amount.

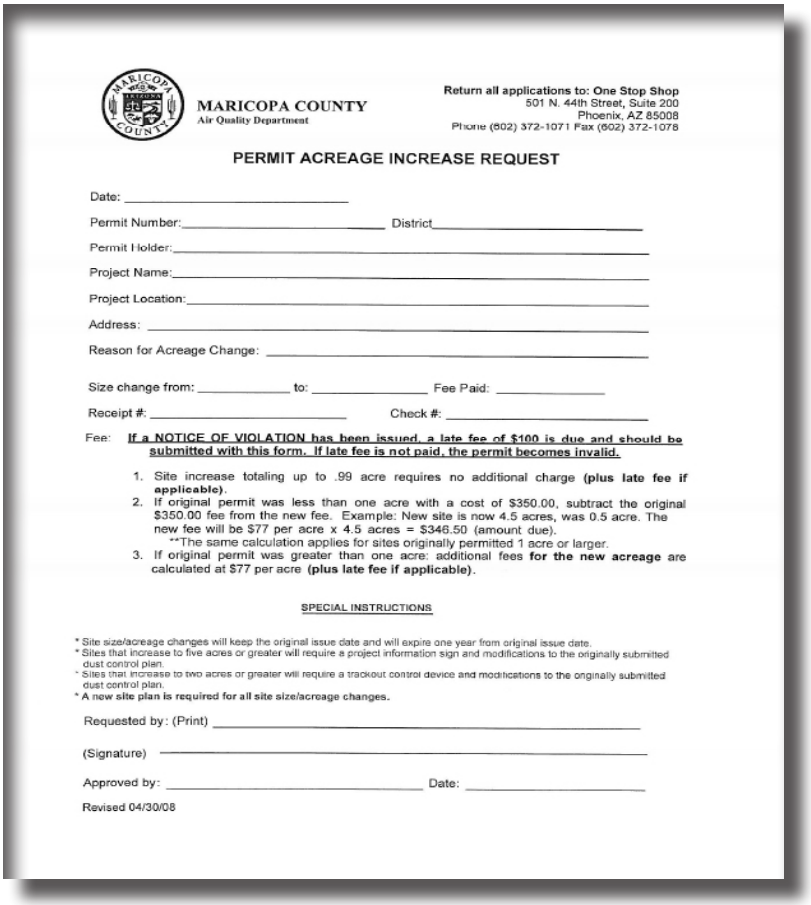
- Sites that increase to one acre or more may require modifications to the originally submitted Dust Control Plan.
- Sites that increase to five acres or more require a project information sign.

If the Permit Acreage Increase Request form is being submitted in response to the permit holder having received a Notice of Violation, then an additional $100 late fee is required to be submitted with the form (in addition to any fee associated with the additional acreage).

Helpful Hint

Forms can be found on the department's website at http://www.maricopa.gov/aq/divisions/compliance/dust/resources.aspx

When a Permit Acreage Increase Request is approved, the original dust control permit expiration date will not change; it will remain the same.



MARICOPA COUNTY
Air Quality Department

Return all applications to: One Stop Shop
501 N. 44th Street, Suite 200
Phoenix, AZ 85008
Phone (602) 372-1071 Fax (602) 372-1078

PERMIT ACREAGE INCREASE REQUEST

Date: _____

Permit Number: _____ District _____

Permit Holder: _____

Project Name: _____

Project Location: _____

Address: _____

Reason for Acreage Change: _____

Size change from: _____ to: _____ Fee Paid: _____

Receipt #: _____ Check #: _____

Fee: **If a NOTICE OF VIOLATION has been issued, a late fee of $100 is due and should be submitted with this form. If late fee is not paid, the permit becomes invalid.**

1. Site increase totaling up to .99 acre requires no additional charge **(plus late fee if applicable)**.
2. If original permit was less than one acre with a cost of $350.00, subtract the original $350.00 fee from the new fee. Example: New site is now 4.5 acres, was 0.5 acre. The new fee will be $77 per acre x 4.5 acres = $346.50 (amount due).
   **The same calculation applies for sites originally permitted 1 acre or larger.
3. If original permit was greater than one acre: additional fees **for the new acreage** are calculated at $77 per acre **(plus late fee if applicable)**.

SPECIAL INSTRUCTIONS

* Site size/acreage changes will keep the original issue date and will expire one year from original issue date.
* Sites that increase to five acres or greater will require a project information sign and modifications to the originally submitted dust control plan.
* Sites that increase to two acres or greater will require a trackout control device and modifications to the originally submitted dust control plan.
* **A new site plan is required for all site size/acreage changes.**

Requested by: (Print) _____

(Signature) _____

Approved by: _____ Date: _____

Revised 04/30/08

Permit Renewal

A dust control permit is valid for a one year period. Technically, a dust control permit is not renewed - rather, a new application is submitted and a new permit is issued (with a new permit number).

As noted previously, a permit application must be submitted at least 14 days prior to the expiration of the permit. If submitted less than 14 days in advance, the permit may not be renewed prior to its expiration.

- a permit that expires while an application is pending will be subject to immediate enforcement for operating without a permit.

Section 12 - Inspections

Maricopa County Air Quality Department

Inspections

Compliance Warning Signs

All projects covered by a dust control permit are expected to be fully compliant with Rule 310 at all times. While all inspectors are assigned to conduct specific inspections, they may, in the course of their duties, observe locations that exhibit "tell-tale" signs (e.g., the presence of trackout or dust emissions), that suggest not only that an inspection is needed, but that the site may not be in compliance.

Paying attention to these indicators of potential non-compliance are important. Identifying problems and correcting them is key to avoiding violations.

Helpful Hint

Stay and wait until an inspector has completed the inspection to receive a verbal inspection report. You may be able to clarify the inspector's observations and gain useful information.

"While driving by a permit area, an experienced inspector can get a good sense of whether the project site will be in compliance with Rule 310 in about 10 seconds."

—Supervising Inspector

Specific Warning Signs

- ✓ Trackout on paved areas or roads accessible to the public.
- ✓ Visible emissions of dust.
- ✓ Large, open storage piles.
- ✓ A messy jobsite.
- ✓ Disorganized parking areas.
- ✓ Lack of an obvious source of water.
- ✓ Ongoing hauling operations.
- ✓ Trucks entering or exiting a site that are either overloaded or without a tarp.
- ✓ Lack of a permit sign or a sign that is missing required information.

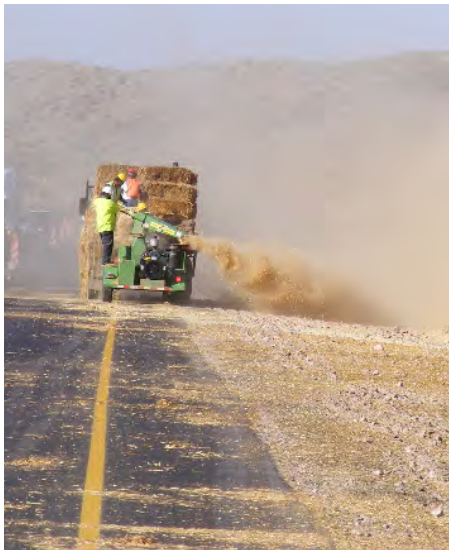
Helpful Hint

After a Notice to Comply or Notice of Violation is issued, a department inspector will conduct a "disposition inspection" to ensure that the violation has been corrected. This will often take place the day after the initial observation of the violation.

Inadequate trackout control

Load height violation

Poorly maintained gravel pad



Blown Straw

Maricopa County Air Quality Department

Inspection Rights

As a prelude to an inspection, the department representative will present a copy of your inspection rights and ask that the facility representative sign the document acknowledging that they were informed of their rights. The Inspection Rights form includes a statement noting that the department's Ombudsman can be contacted for assistance. If a Notice of Violation is issued after an inspection, a request for Ombudsman review must be made within10 days following receipt of the NOV.

The inspection rights are:

1) The Maricopa County Air Quality Department (hereinafter "department") representative(s) identified above was/were present at the above regulated site at the above listed date and time. Upon entry to the premises, the department representative(s) met with me, presented photo identification indicating that they are a department employee(s) and explained that:

The purpose of this inspection is:

- to determine compliance with Arizona Revised Statutes (A.R.S. Title 49, Chapter 3, Article 3) and/or Maricopa County Air Pollution Control Regulations.
- to determine compliance with an Air Quality Permit issued pursuant to A.R.S. § 49-480, and Maricopa County Regulations Rule 100, Section 105.
- to determine compliance with an administrative or judicial order issued pursuant A.R.S. § 49-491, § 49-511, § 49-512.

This inspection is being conducted pursuant to A.R.S. § 49-473, § 49-474, § 49-488, and/or the inspection and entry provisions in an Air Quality Permit or conditional order. There are no direct fees for this inspection.

2) I understand that I can accompany the department representative(s) on the premises, except during confidential interviews.

3) I understand that I have the right to copies of any original document(s) taken during the inspection, and that the department will provide copies of those documents at the department's expense.

4) I understand that I have a right to a split of any sample(s) taken during the inspection, if the split of the sample(s) would not prohibit an analysis from being conducted or render an analysis inconclusive.

5) I understand that I have the right to copies of any analysis performed on sample(s) taken during the inspection and that the department would provide copies of this analysis at the department's expense.

6) I understand that each person interviewed during the inspection will be informed that their statements may be included in the inspection report.

An Inspection Begins

7) I understand that each person whose conversation will be tape-recorded during the inspection will be informed that the conversation is being tape-recorded.

8) I understand that if an administrative order is issued or a permit decision is made based on the results of the inspection, I have the right to appeal that administrative order or permit decision. I understand that my administrative hearing rights are set forth in A.R.S. § 49-482, § 49-498 et seq. and Maricopa County Air Pollution Control Regulation IV, Rule 400. If I have any questions concerning my rights to appeal an administrative order or permit decision, I may contact the department's Ombudsman at 602-506-1813.

9) I understand that the issuance of a Notice to Comply or a Notice of Violation is not appealable. I understand that if I have any questions or concerns about this inspection, or I wish to dispute the inspection findings, I may contact the department's Ombudsman at 602-506-1813.

10) If a Notice of Violation is issued, I understand that I may check its status.

11) While I have the right to decline to sign this form, the department representative(s) may still proceed with the inspection/investigation.

To check on the status of a Notice of Violation use this weblink
http://www.maricopa.gov/aq/divisions/enforcement/nov/nov_status.aspx

Helpful Hint

While inspectors may offer constructive operational suggestions, you should confer with your technical staff or consultant to determine your actions.

Maricopa County Air Quality Department

Once an Inspection Begins, What Do Inspectors Look For?

An inspection can be a nerve-wracking experience or a validation of the good on-site control practices being employed. When an inspector arrives, you can be reasonably sure several areas will be asked about. The brief list below highlights key points that an inspector will be reviewing.

A Permit

Is the dust control permit onsite and accessible? Has it expired?

Completed Records

Records should be clear and meet the basic requirements.

Are copies of all training certificates onsite?

The Approved Dust Control Plan

Is the Dust Control Plan onsite? Are the control measure commitments being used?

Whether a Dust Control Coordinator is on Site

Based on the size of your project, a Dust Control Coordinator may be required to be onsite during primary dust-generating activities. For example, if the only activity for the day is house painting and no one is disturbing soil, the Dust Control Coordinator may not be required that day.

Water

Be able to document that water is being used in sufficient quantities to meet operational requirements.

Impacts on Sensitive Groups

Is a hospital, school, or senior residential area nearby? Is there the potential for sensitive groups to be exposed to dust from disturbed areas?

Subcontractors

In circumstances where a site representative believes that a subcontractor is directly responsible for conditions that may result in the issuance of an NOV, the site representative may request that the inspector confer with the subcontractor to determine whether the subcontractor should be cited for the violation.

Helpful Hint

Make someone in your organization accountable for the environmental program. One person allows focus, creates consistency, helps compliance, and reduces costs. This person should be able to give direction, arrange and track training, record subcontractor registrations, etc.

Site Conditions

Is there any visible trackout?

Does trackout extend beyond 25 feet in cumulative distance? Is someone engaged in cleaning up trackout?

Have disturbed areas been adequately stabilized?

Are contingency control measures listed in the Dust Control Plan being used?

If required, does signage contain the required elements?

The Dust Control Plan is an enforceable document. If commitments and/or procedures contained within the Dust Control Plan are not being met, a Notice of Violation can be issued.

Courtesy Inspections

- ✓ The intent of a courtesy inspection is principally educational and is encouraged to be scheduled early in the term of a permit.
- ✓ By taking advantage of a courtesy inspection, it is easier to plan ahead to ensure that follow-on activities will be in compliance.
- ✓ Courtesy inspections can be requested for each distinct phase of a project (typically demolition, construction, vertical).
- ✓ A request for a courtesy inspection should be set up with adequate advance notice provided to the inspector (scheduling the inspection normally a takes a couple of days).
- ✓ During a courtesy inspection observations of minor violations are waived provided they are corrected while the inspector is onsite.
- ✓ A major violation observed during a courtesy inspection may result in a Notice of Violation being issued.

Note: if a courtesy inspection has been scheduled, but a complaint is made before the courtesy inspection can take place, the inspection will be treated as a complaint inspection rather than a courtesy inspection and an NOV may result.

One courtesy inspection is allowed per project phase (demolition, construction, vertical).

An inspection underway

Helpful Hint

To arrange a courtesy inspection, call the Desk Duty Supervisor at (602) 506-6734.

Inspection Initiative

The department has announced a new initiative - the Air Monitoring Surveillance Project.

Some of the highest levels of particulate matter PM-10 (dust, smoke, fumes) pollution in Maricopa County are found around the Durango, West 43rd Ave, South Phoenix, Higley, Buckeye, and Zuni Hills ambient air quality monitors (map of the monitor locations can be found at: http://www.maricopa.gov/AirMonitoring/SitePollutionMap.aspx In an effort to decrease pollution levels, the Maricopa County Air Quality Department, in conjunction with local cities and towns, will focus inspection and surveillance efforts within a two mile radius of each of these monitoring sites for an indefinite period of time. During the enhanced surveillance period, there will be an increase in the number of inspections conducted on construction sites, businesses, vacant lots and other sources of PM-10.

Section 13 - Enforcement

Enforcement

When a department inspector finds a condition that is non-compliant, he or she has a duty to issue either a Notice to Comply (NTC) or an Notice of Violation (NOV). A Notice to Comply is not referred to the Enforcement Division and is not considered in subsequent enforcement matters as a factor in determining a penalty.

The Notice to Comply allows the permit holder to correct the violation and not receive a penalty.* The Notice to Comply is issued for only certain types of non-compliance and under certain conditions (the policy document describes this in detail). The inspector has only a limited amount of discretion to issue a Notice to Comply. A Notice to Comply will be converted into an NOV if documentation is not provided to the department within a short time validating that the non-compliant condition has been corrected.

If the recipient of the NOV does not seek Ombudsman review (or if the Ombudsman has affirmed the NOV, an NOV will be referred to the department's Enforcement Division where the case will be reviewed and a penalty amount calculated by the enforcement officer assigned to the case. The inspector is not involved in determining a penalty offer. Penalities are calculated using the department's penalty policy which can be reviewed on the department's website, http://www.maricopa.gov/aq/divisions/enforcement/docs/pdf/Penalty%20Policy.pdf.

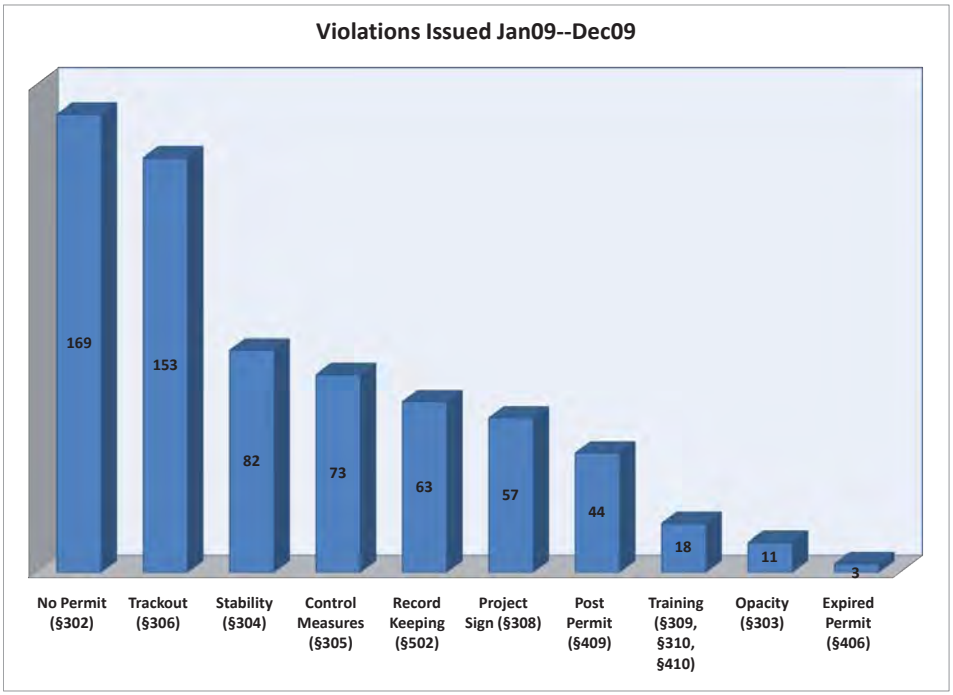
Once a penalty amount is determined, the NOV recipient is presented with a settlement offer to resolve the NOV. The NOV recipient has the option of engaging in a discussion with the department's Enforcement Division to reach an agreed-upon penalty. If no agreement can be reached, the case is referred to the Maricopa County Attorney's Office where a penalty will be pursued through court action. A permit holder has the right to legal representation at any point during the enforcement process.

Most of the enforcement actions taken by the department result in an Order of Abatement by Consent—a document that outlines the violations and the penalty that is agreed upon between the department and the respondent. The Order of Abatement by Consent may also contain additional provisions necessary to achieving compliance, such as obtaining a permit or paying outstanding fees.

In the event the recipient of the enforcement action declines to accept a penalty offer, the department will refer the matter to the County Attorney's office with a request to file a civil action in Maricopa County Superior Court.

If, in the rare event, an Order of Abatement is issued (unilaterally by the department), the respondent has the opportunity to seek a hearing before the Air Pollution Control Hearing Board. This appeal must be filed in writing and within 30 days of receipt of the Order. An appeal to the Air Pollution Control Hearing Board is also available following the issuance of a permit, a permit revision, or a conditional order.

When an NOV is issued, and the permit holder believes that a subcontractor is primarily responsible for the non-compliant condition, the permit holder may allow the subcontractor to pay the agreed-upon penalty. If a subcontractor agrees to accept responsibility for the penalty it will not have any bearing on the status of the enforcement action against the permit holder. An agreement or understanding between a permit holder and a subcontractor regarding who will accept responsibility for a violation will not be considered by the department in the disposition of an enforcement action.



The figure at left indicates the frequency of violations issued for non-compliance under Rule 310 for the period of January through December 2009.

*The Notice to Comply policy is included in the Resources section of this handbook.

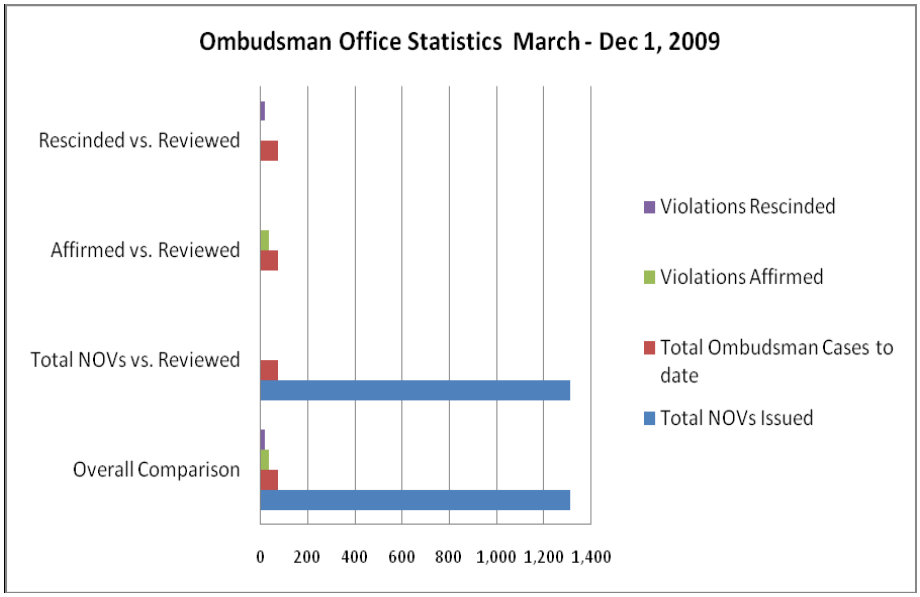
Ombudsman Review

The Office of the Ombudsman was created to provide an opportunity for individuals seeking relief from some conflict with the department. An Ombudsman provides assistance to individuals and organizations with unresolved concerns and seeks to achieve a fair resolution. Importantly, the Air Quality Ombudsman reports to the director of the department and is empowered to work with department staff to resolve a concern. The Ombudsman acts as an impartial, unbiased party during disputes. The Ombudsman can investigate a complaint and make a recommendation, but has no direct, legal authority to make or reverse a decision. The services provided by the Ombudsman are open to anyone, including businesses, members of public-interest groups, and private citizens.

With regard to enforcement actions, the Ombudsman may offer an independent review of a Notice to Comply, a Notice of Violation, or a review of the penalty assessment offered by the Enforcement Division. Generally, a request for Ombudsman support must be initiated within 10 days of receipt of a Notice to Comply or an NOV or 10 days after receipt of the department's final penalty offer letter.

Office of the Ombudsman Contact Information

Dennis Dickerson
(602) 506-1813
dickersond@mail.maricopa.gov



The above chart shows the number of Ombudsman cases since the inception of the Ombudsman program through December 1, 2009 as compared to the number of Notices of Violation that have been issued during the same period.

Administrative Hearings

In addition to Ombudsman review, any person receiving a final offer to settle an enforcement action for a penalty determined by the department has the opportunity to request a hearing before an Air Pollution Hearing Officer. The hearing officer will take evidence and make findings of fact and conclusions of law that are then presented to the department's director as a recommendation for a final decision on a penalty offer.

A request for Ombudsman review of a final offer letter will not be considered a request for an administrative hearing. A separate request for an administrative hearing must be made to the attention of the Hearing Officer.

Public Records Requests

Requests for public records are available through the Air Quality Records Management staff. All requests must be in writing and clearly state the records sought. If the records request is vague or broad in nature, records management may ask for further clarification or for the requester to be more specific about the records that are being requested.

The form to initate a Public Records Act Request is available online at http://www.maricopa.gov/aq/contact_us/public_records/docs/pdf/MCAQ_Records_Request_Non-Commercial_Purpose.pdf

Records may be requested using the Air Quality Public Records Request Form or by providing a written request with the following information:

- *requester's first and last name*
- *requester's business/company name if applicable*
- *requester's address or business address*
- *requester's phone number and fax number*
- *record being requested (list business name, business address, and permit number if known)*
- *document what the records are requested for*
- *document if the records are Commercial or Non-Commercial (see Commercial Record Request Definition)*
- *indicate whether copies are being requested or if you wish to inspect the record in person.*

More detailed information regarding requesting public records is available on the department's website at http://www.maricopa.gov/aq/contact_us/public_records/Default.aspx

Submitting a Public Records Request?

By FAX

(602) 372-0997

By EMAIL

requestrecords@mail.maricopa.gov

By MAIL

Maricopa Air Quality Department
Attention: Records Management
1001 N. Central Avenue, Suite 125
Phoenix, AZ 85004

IN PERSON*

1001 N. Central Avenue, Suite 125
Phoenix, AZ 85004

***Submitting a request in person does not guarantee that the department will have the resources immediately available to fulfill the request.**

Section 14 - Test Methods

Maricopa County Air Quality Department

Test Methods (Visible Emissions)

Test methods are identified in Appendix C of the Air Quality Rules. This section provides information on these methods.

Determining The Presence of Visible Emissions Crossing a Property Line

EPA Reference Method 22

Visible emissions of dust (not requiring opacity measurements) are determined using EPA Reference Method 22. A certified observer is not required. In this method, emissions may not exceed 30 seconds in duration during any six-minute period. The 30-second provision is cumulative, meaning that emissions may be observed in discrete segments that are shorter than 30 seconds and which are then added together. If the combined total of observed emissions exceeds 30 seconds when collected during a six-minute period, a violation has been observed.

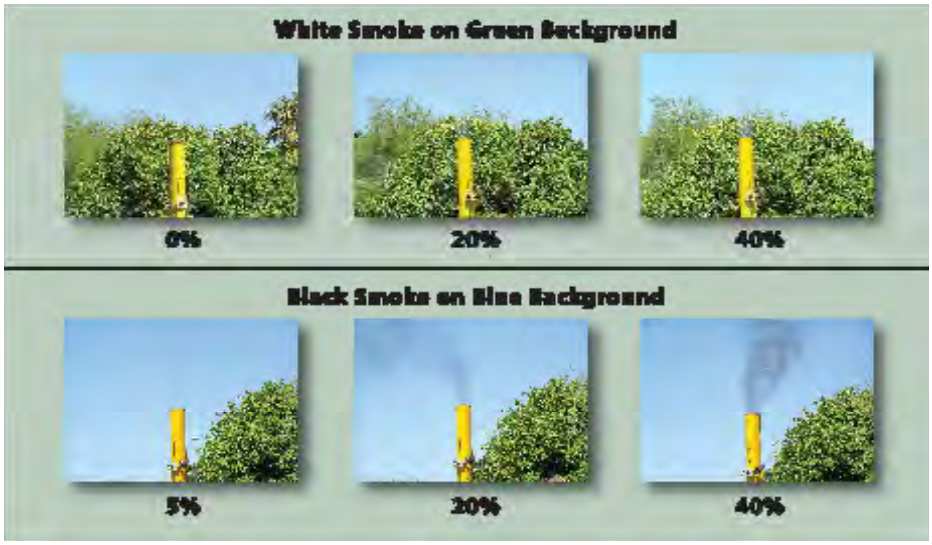
Determining Opacity of Fugitive Emissions

Appendix C, Parts 2, 3 and 4

Opacity emissions of dust are determined using Appendix C, Part 3 and 4 of the Maricopa County Air Pollution Control Rules and Regulations. Observations made using Appendix C require the observer to be certified and to use very specific protocols to determine opacity values.

There are several distinct protocols for determining opacity based on the type of operation underway.

1. Non-continuous dust plumes including, but not limited to, those plumes generated by bulk material loading/unloading, non-conveyorized screening, or trenching with backhoes. This method averages 12 observations taken at 0 and 5 seconds for each event over a period not longer than one hour. As a practical matter, the 12 observations will most likely be completed over the period of a few minutes.
2. Continuous dust plumes, including but not limited to, plumes resulting from grading, trenching, blading, clearing, leveling and raking. This method consists of the average of 12 observations with each observation taken at intervals of ten seconds.
3. For unpaved roads and unpaved parking lots, two observations per vehicle at one meter plume height. This method averages 12 observations taken at 0 and 5 seconds over a period not longer than one hour.
4. Livestock activities (including corrals, pens, and arenas). This method uses momentary observations of plumes 1 meter above the ground and taken at 15 second intervals. 13 readings above 20% opacity represent a violation.



The above photos were taken during an ADEQ/ASU Smoke School held at Mesa, Arizona on March 26, 2008. The plumes of smoke were generated by a smoke machine that was calibrated on March 26, 2008 to meet EPA Method 9 standards for smoke generator machines used to certify candidates for EPA Method 9 Visible Emissions Evaluator.

Please note that the EPA Method 9 does not recognize photography as a substitute for determination of opacity by human vision. Photographs may vary from picture to picture and camera to camera due to a variety of physical conditions and camera operator variability. The photos should be used as guidance to assist student learning.

Note: EPA Method 9 is not used by Maricopa County Air Quality Department staff for the determination of opacity values.

Information concerning "smoke school" is provided in the Resources section.

Maricopa County Air Quality Department

Test Methods (Soil Stability)

Soil Crust Determination (The Drop Ball Test)

A simple test to determine if a soil crust is present is known as the drop ball test. A relatively small (15.9 mm) steel ball weighing between 0.56 and 0.6 ounces is dropped onto a 1-foot square area from a distance of 1 foot above the surface. The ball is dropped three times within this 1-foot square area.

If the observation of the dropped ball passes the test criteria two out of each three times the ball is dropped, the area is considered to have passed the test. The criteria for passing is for 1) the dropped ball not to have sunk into the surface such that it is partially or fully surrounded by loose grains of soil and, 2) when the ball is removed, the surface upon which it fell has not been pulverized so that loose grains of soil are visible.

Does a failed drop ball test apply to the whole project?

Yes. Each sample area selected at random by an inspector is considered to be representative of the soil type in the disturbed area *in its entirety.*

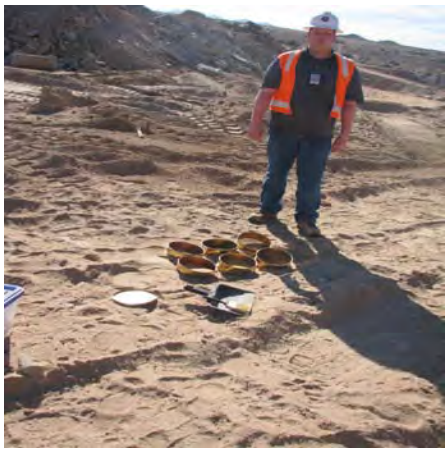
Drop Ball Test

A Passing Grade

Helpful Hint

The best test method is no test method! If a project site is visibly moist throughout, then an inspector knows immediately that any test method will pass, and therefore a test method is not needed.

As a practical matter, the first test is a comon-sense visual (eyeball) test.



Testing Requirements for Representative Areas

Representative Areas	Drop Ball/ Steel Ball Test	Threshold Friction Velocity (TFV)	Threshold Friction Velocity (TFV) with Rock Test Method (RTM)	Silt Loading/ Silt Content	Flat Vegetative Cover (FVC)	Standing Vegetative Cover (SVC)	Visible Emissions Method 22	Visible Emissions Appendix C
Open Storage Pile							X	X
Unpaved Parking Lot Unpaved Material Staging Area Unpaved Material Storage Area				X			X	X
Unpaved Haul Road Unpaved Access Road Unpaved Equipment Path				X			X	X
Disturbed Surface	X	X	X		X	X	X	X

Soil Test Methods (cont'd)

ASTM D2216 - 05 Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass

Determining soil moisture [12%, as required in Rule 310 §305.11(b)(2)] requires the use of a specific test procedure that is done using an oven under laboratory conditions. This method requires several hours for proper drying of the sample. A synopsis of the test method is provided on the ASTM website and the full test method is available through ASTM at www.astm.org/Standards/D2216.htm.

Determining Silt Content Using ASTM Method C136-06

Silt content is determined using ASTM Method C136-06—Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates. The test is used to determine the compliance status of the resulting particle size distribution. Details on the sample analysis procedure can be found at www.astm.org/Standards/C136.htm.

Determining Silt Loading

Silt loading is also determined using ASTM Method C136-06—Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates. The test is used to determine the compliance status of the resulting particle size distribution. Details on the sample analysis procedure can be found at www.astm.org/Standards/C136.htm. The main difference between silt loading and silt content is a mathematical factor.

Threshold Friction Velocity

Threshold Friction Velocity (TFV) is defined as the wind velocity necessary to initiate soil erosion. A test can be readily performed in the field by an inspector to determine whether soil conditions are susceptible to dust entrainment. The TFV value is specified in Rule 310 and soils that do not meet this value are not stable and a condition of non-compliance exists.

By sorting a soil sample through a series of sieves, which allow soil particles of different sizes to pass through, a distribution of particle sizes in a soil sample can be determined. This distribution is then compared to a table contained in the test methodology that allows the determination of a TFV value. The standard contained in Rule 310 is to maintain soil conditions such that the TFV value is 100 cm/sec or greater.

The details of this procedure are available for review at http://www.maricopa.gov/aq/divisions/planning_analysis/rules/docs/AppendixC-0404.pdf

Threshold Friction Velocity with Rock Test Method

Rock Test Method (Excerpted from the U.S. EPA Website)

This test method examines the wind-resistance effects of rocks and other non-erodible elements on disturbed surfaces. Non-erodible elements are objects larger than one cm in diameter that remain firmly in place, even on windy days. Typically, this includes rocks, stones, glass fragments, and hard-packed clumps of soil lying on or embedded in the surface. Vegetation does not count as a non-erodible element in this method. The purpose of this test is to estimate the percent cover of non-erodible elements on a given surface to see whether they take up enough space to offer protection to diminish the wind's ability to entrain dust. For details on this test visit http://www.maricopa.gov/aq/divisions/planning_analysis/rules/docs/AppendixC-0404.pdf

Soil Testing

Section 15 - More Helpful Hints

Maricopa County Air Quality Department

More Helpful Hints

- ✓ Have any and all site supervisors read and initial the approved Dust Control Plan.
- ✓ Review the approved Dust Control Plan with subcontractors.
- ✓ Keep the job site organized and presentable.
- ✓ Prominently post site rules for dust control.
- ✓ Restrict access to non-active areas.
- ✓ Establish subcontractor expectations.
- ✓ Conduct frequent dust control tailgate meetings.
- ✓ To better control trackout, one successful practice is to monitor exits at least every 30 minutes.
- ✓ Maintain records that provide a clear understanding of site operations—recordkeeping should be conducted in tandem with site operations and be used to help trigger corrective action. For example, an observation of trackout greater than 25 feet should be accompanied by notations of immediate action taken to control trackout.
- ✓ Be aware of sensitive areas that surround your site—anticipate complaints and inspections to investigate complaints.
- ✓ Restrict exits with fencing.
- ✓ Park only in designated areas that are identified in the Dust Control Plan or, at minimum, in areas that are posted.
- ✓ Use courtesy inspections and other department programs, such as the "Tailgate Talks" DVD, to aid your compliance program. See the Resources section to find out how to request your free copy.
- ✓ If you are hauling offsite, ask the permit holder to spray water over your load before tarping to ensure that dust emissions while driving are eliminated.

Maintaining moist soil

Fenced exits

Watered haul road

Section 16 - Resources

Resources

Arizona Air Quality State Implementation Plan

http://www.maricopa.gov/aq/divisions/planning_analysis/state_implementation_plan.aspx

Courtesy Inspections

Call (602) 506-6734 to schedule courtesy inspections.

Dust Control Application Guidance

http://www.maricopa.gov/aq/divisions/compliance/dust/docs/pdf/DustControlPermitApplicationPackage.pdf

Dust Control Forms, Instructions, Information, and Samples

www.maricopa.gov/aq/divisions/compliance/dust/resources.aspx

Dust Duty Desk Supervisor

(602) 506-6734

Enforcement

Maricopa County Air Quality Enforcement Policy

www.maricopa.gov/aq/divisions/enforcement/resources/#public_enforcement

Maricopa County Air Quality Department Website

- ✓ *Dust Abatement Field Guide for the Construction Industry*
- ✓ *Location, Hours, and Other Contact Information*
- ✓ *One Stop Shop*
- ✓ *Public Records Request*
- ✓ *Web Contact Form*

http://www.maricopa.gov/aq/

Ombudsman

www.maricopa.gov/aq/divisions/Ombudsman/Default.aspx

PM-10 Non-attainment Area, Area A, and Other Planning Maps

http://www.maricopa.gov/aq/divisions/planning_analysis/PlanningAreaMaps.aspx

Report a Violation

Call (602) 372-2703 or visit:

www.maricopa.gov/aq/contact_us/report_violation.aspx

Rule 310 and Other Applicable Rules

- ✓ *Rule 310—Fugitive Dust from Dust-Generating Operations*
- ✓ *Rule 200—Permit Requirements*
- ✓ *Appendix F—Soil Designations*
- ✓ *Appendix C—Test Methods*

www.maricopa.gov/aq/divisions/planning_analysis/AdoptedRules.aspx

Resources (cont'd)

Subcontractor Registration Information

www.maricopa.gov/aq/divisions/compliance/dust/subcontractorRegistration.aspx

Training

www.maricopa.gov/aq/divisions/compliance/dust/dust_control_training/default.aspx

Other Manuals on Dust Control

Clark County, Nevada – Construction Activities Dust Control Handbook.

http://www.cleanairnet.org/caiasia/1412/articles-58190_resource_1.pdf

Field Manual on PM-10 and Fugitive Dust Control, Best Management Practices for Maricopa County, Arizona.

Zbigniew D. Czupak and Dr. Edward Kavazanjian, P.E., Arizona State University, Ira A. Fulton School of Engineering.

http://pavement.engineering.asu.edu/pdf/BMPs%20for%20Dust%20Control%20Reference%20Manual%20-%20Final.pdf

Section 17 - Appendices

Only Appendices B and C are contained in this document. All others can be accessed by using the hyperlinks embedded in the handbook.

Appendix B
Draft Guidance Document for Issuing Notices of Violation Directly to Subcontractors or to other Non-Permitted Entities Observed Violating Rule 310 (April 18, 2006)

Appendix C
Notice to Comply Interim Policy

Maricopa County Air Quality Department
Draft Guidance Document
For Issuing Notices Of Violation
Directly To Subcontractors Or To Other Non-Permitted Entities
Observed Violating Rule 310-Fugitive Dust
April 18, 2006

Purpose

The purpose of this guidance document is to provide a consistent reasonable process for issuing Notices Of Violation to subcontractors or to other non-permitted entities, who are observed violating Maricopa County Air Pollution Control Regulations Rule 310-Fugitive Dust. This guidance document is intended solely as guidance for the Maricopa County Air Quality Department and the regulated community. This guidance document is not intended and may not be used to create rights enforceable by any party and, in and of itself, does not impose legally binding requirements on the Department or the regulated community. Nothing in this guidance document is intended to limit the Department's enforcement discretion. Deviation from this guidance document will not prevent the Department from pursuing an enforcement action that is otherwise appropriate to the violation.

Background

The April 2, 2004 revisions to Rule 310-Fugitive Dust provided the verbiage and latitude for issuance of Notices Of Violation to the owner and/or operator of a dust generating operation. Currently, all Notices Of Violation, with the exception of un-tarped trucks, are issued to the permit holder.

However, certain violations of Rule 310-Fugitive Dust are created by subcontractors regardless of the fugitive dust controls in-place by the permit holder. Permit holders are limited, given the current work climate in Maricopa County, as to the actions permit holders can pass-on to subcontractors who create violations.

To help distinguish to which party the Department may issue a Notice Of Violation, this guidance document includes a list of situations under which the Department may issue a Notice Of Violation to a subcontractor or to other non-permitted entities.

Situations That Would Warrant Issuing A Notice Of Violation To A Subcontractor Or To Other Non-Permitted Entities

A Notice Of Violation may be issued to a subcontractor or to other non-permitted entities when the following situations occur. However, before a Notice Of Violation is issued to a subcontractor or to other non-permitted entities, the Department must be able to verify the following:

1. The Department must be able to readily and clearly identify the party; and
2. The Department must be able to determine that the permit holder has put appropriate fugitive dust controls in-place, such that the permit holder is not causing the subcontractor or other non-permitted entities to create a violation.

- Grading when opacity is exceeding 20%
  (Rule 310, Section 301, Section 306, and Section 308.7)
- Loading/unloading when opacity is exceeding 20%
  (Rule 310, Section 301, Section 306, Section 308.6(a), and Section 308.7)
- Wet utility/dry utility installation when opacity is exceeding 20%
  (Rule 310, Section 301, Section 306, and Section 308.7)
- Trackout control device is installed and site properly barricaded but trades removing barricades and exiting site other than thru/over trackout control device
  (Rule 310, Section 308.3(a)(1))
- Un-tarped trucks exiting site onto paved area accessible to the public
  (Rule 310, Section 308.1)
- Freeboard limit exceeded and/or spillage while on-site crossing a public area/roadway
  (Rule 310, Section 308.1)

Maricopa County
Air Quality Department

INTEROFFICE MEMORANDUM

Date: April 13, 2009

To: Air Quality Department staff

From: Lawrence Odle, Director

Subject: Notice to Comply Interim Policy

21 Notice to Comply Interim Policy

Contents:

21.1 EFFECTIVE DATE

This interim policy is effective beginning April 13, 2009, and shall remain in effect until terminated or superseded.

21.2 GENERAL PURPOSE

The purpose of this policy is to establish interim guidance to department staff concerning the use of a Notice to Comply, commonly referred to as an NTC, option as an additional tool for documenting activities or conditions that are not in compliance with statutes or regulations relating to air quality ("Noncompliance"). The NTC serves as both a formal notice of Noncompliance and directs that immediate conclusive action must occur to bring about compliance. The NTC is available to resolve administrative and procedural violations that do not have the immediate potential to contribute to emissions that would exceed a rule or permit condition. An NTC is a tool that allows staff to document the existence of administrative and procedural violations that may be readily corrected in the field or can be readily corrected through the completion of an administrative activity within a period of 24 hours. An NTC is formal documentation of actual Noncompliance activity. Even though an NTC may be issued, it does not eliminate the existence of a violation or a penalty that may be subsequently issued by the department, should the department determine it is in the interest of public policy to do so.

21.3 ISSUANCE

The NTC is an administrative/enforcement tool that is available to staff when Noncompliance is observed while conducting an inspection or reviewing required reports. The NTC is to be used only to document a violation of air quality rules and regulations. When conditions warrant, and at the discretion of the inspector, an NTC may be issued in lieu of a Notice of Violation.

Staff issuing an NTC shall inform the violator that compliance must occur within 24 hours and that a written response to the NTC is required within 5 days of issuance. The written response shall include, but not be limited to:

- NTC number (or copy of the NTC);
- Location of Noncompliance activity;
- Certification of truth, accuracy and completeness;
- A description of the Noncompliance activity, including its duration and cause;
- Identification of the responsible source contact;
- A description of what action has been taken to bring about compliance; and,
- Date and time complete compliance was achieved.

The written response to an NTC shall be submitted to the issuing staff.

An NTC shall not be issued for any Noncompliance activity that constitutes actual emissions violation or is/or would directly contribute to emissions that constitute a violation of a Rule or permit condition, e.g., observations of opacity in violation of a rule or emissions calculated to exceed a permit condition.

An NTC shall not be issued if the site has a history of significant or recurring Noncompliance. For the purposes of this policy, recurring Noncompliance is defined as 2 or more violations for the same or similar Noncompliance issue(s) within any 3-year consecutive period at any facility under the common ownership of the owner, or, under the common operation of the operator.

An NTC shall not be issued if the violation cannot be corrected immediately or in 24 hours for an administrative violation.

21.4 ENFORCEMENT

Failure of a party to correct the Noncompliance activity within 24 hours or failure of the party to submit a written response received by the Maricopa County Air Quality Department within 5 days of receipt of an NTC shall result in the automatic issuance of the NTC into a Notice of Violation and the application of the standard penalty assessment procedure. The NTC will remain issued and serve as historical documentation that formal notice of the need to comply was provided.