



Maricopa County
Air Quality Department

Attach this Dust Control Plan to the Air Permit Application and return them to: **One Stop Shop**

501 N. 44th Street, Suite 200

Phoenix, Arizona 85008

Phone (602) 372-1071 Fax (602) 372-1078

DUST CONTROL PLAN

For Office Use Only			
Permit Number		Approved By	
Date Received		Approval Date	
Comments:			

- Section 1. Basic Information**
- Section 2. Project Information**
- Section 3. Selection of Control Measures**
- Section 4. Guidance and Instructions**

In order to be accepted for review the Dust Control Plan must be complete. This includes answering all questions fully and accurately. You may fill this Dust Control Plan and submit it as your Dust Control Plan or you may write your own Dust Control Plan that conforms to Rule 310, Section 402.

Keep in mind, the Maricopa County Air Quality Department (department) uses the Instructions portion of the Dust Control Plan as criteria when reviewing, evaluating, and approving the Permit Application. The rules identified in the instructions contain legally binding and enforceable requirements. Permits issued by the department under the rules also contain legally binding and enforceable conditions and terms. The Dust Control Plan does not supersede or change any existing federal, state, or county regulations and laws, including requirements of an approved State Implementation Plan (SIP).

Section 1: Basic Information

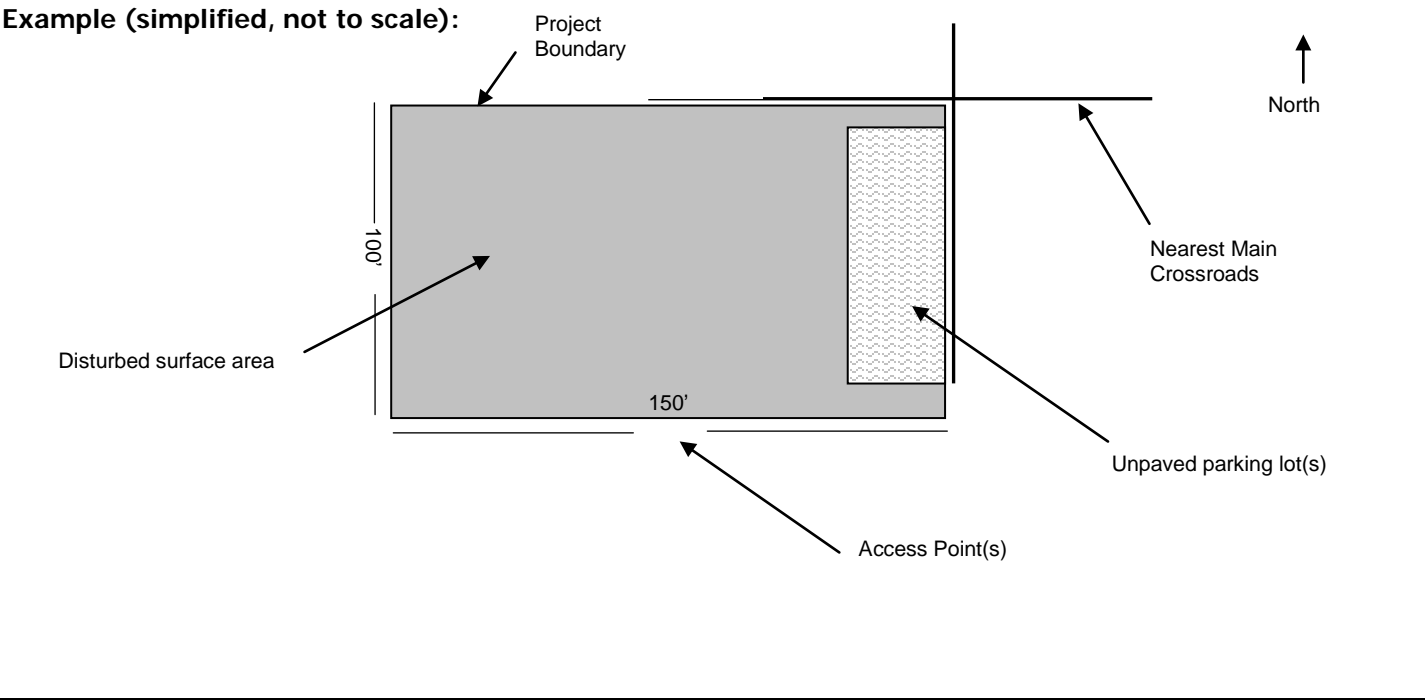
Facility/Business Information must be fully and accurately completed, including full legal names of entities and individuals (no DBA's or trade names).			
1(a). Facility Information:			
Type of Facility:			
Type of Permit:			
<input type="checkbox"/> General Permit	<input type="checkbox"/> Non-Title V	<input type="checkbox"/> Title V	
Permit Number:			
Facility Name:			
Facility Address:			
City:		State:	Zip:
Phone:		Fax:	
E-Mail Address:			
Local Mailing Address (if not the same as above):			

1(b). Person responsible for submitting the Dust Control Plan:			
Name:			
Signature:			
Title:		Company Name:	
On-Site Phone:		Mobile:	Fax:
E-mail Address:			

1(c). Name(s) of person(s) responsible for the implementation of the Dust Control Plan:			
Name:			
Title:		Company Name:	
On-Site Phone:		Mobile:	Fax:
E-mail Address:			

Section 2: Project Information

- Attach a separate page (8½" × 11") with a drawing showing all of the following elements:
- Entire project site boundaries
 - Area to be disturbed with linear dimensions or certification of square footage (including staging areas, stockpiles, access and haul roads, parking, driveways, and storage)
 - Nearest main crossroads
 - North arrow
 - Access Point(s) – Planned exit locations onto areas accessible to the public
 - Perimeter of unpaved parking lot(s)



2(b).
List Soil Designations from Appendix F in Maricopa County Air Pollution Control Regulations or, if attaching a copy of the site geotechnical report, check here

For construction projects one acre or larger, except for routine maintenance and repair done under a block permit, designate in the table below which soil texture is naturally present on the work site and which soil texture will be imported onto the work site (if applicable). If the soil on the work site has been tested, then you should rely on the test results to complete the table and you should attach a copy of the site soil report (boring logs) to this application. If the soil on the work site has not been tested, then use Appendix F in the Maricopa County Air Pollution Control Regulations to complete the table below.

Texture of soil naturally present on work site	Texture of soil to be imported onto work site

SELECTED IMPORTANT RULE CHANGES

EFFECTIVE JANUARY 2010

1. High Winds

The treatment of wind conditions was adjusted to concentrate on escalating controls as winds increase (Rule 310, Section 303.2(a)). In addition, the definition of "wind event" was removed (Rule 310, old Section 236).

2. Gravel pad trackout control device

The definition of "gravel pad" (Rule 310, Section 217) was expanded to include a work site exit width of less than 30 feet; being clear that the use of a reduced-width gravel pad is contingent on the physical impossibility of widening the existing exit, not mere inconvenience.

3. Dust control permit, plan requirements, and control measures

Project Sign. The project sign expiration date requirement has been removed (Rule 310, Section 308.2).

Project Site Drawing. Clarification and addition of items to include in the project site drawing such as "unpaved parking lot(s)" (Rule 310, Section 402.3(b)).

Control Measures. "Bulk Material Stacking, Loading, and Unloading Operations" and "Open Storage Piles" have been re-formatted and modified for clarity and increased effectiveness (Rule 310, Sections 305.4 and 305.5).

Definitions. "Area accessible to the public" (Rule 310, Section 202) and "unpaved parking lot" (Rule 310, Section 232) have both been modified for clarity and effectiveness while "public roadways" (Rule 310, old Section 227) was deleted as the concept is already captured in "area accessible to the public".

EFFECTIVE MARCH 2008

1. Dust Control Coordinator

A Dust Control Coordinator is required to be on-site at all times during primary dust-generating operations for any site of five or more acres of disturbed surface area that is subject to a Maricopa County dust control permit (Rule 310, Section 310). The contact information for the Dust Control Coordinator(s) must be provided in Question #5 of Part 2 of the Dust Control Permit Application.

2. Dust Control Training Classes

Comprehensive Dust Control Training: Once every three years for the Dust Control Coordinator.

Basic Dust Control Training: Once every three years for Site superintendents or other designated on-site representatives of the permit holder, if present at a site with more than one acre of disturbed surface area. Once every three years for all water truck drivers and water pull drivers as well.

More information on these training classes can be found by calling the Training Line at 602-372-1467 or at: www.maricopa.gov/aq/divisions/compliance/dust/dust_control_training on the Dust Compliance web site.

3. Visible emissions beyond property line

Rule 310, Section 303.1 requires that the owner and/or operator of a dust generating operation shall not cause, suffer, or allow visible emissions of particulate matter, including fugitive dust, beyond the property line within which the emissions are generated. Section 303.2 does provide an exception for dust-generating operations conducted within 25 feet of the property line.

4. Subcontractor Registration

A requirement of Rule 200 (Permit Requirements) is Subcontractor Registration. Subcontractors engaged in dust-generating operations at a site that is subject to a Maricopa County dust control permit are required to register with the department (Rule 200, Section 306) and pay an annual fee as specified in Rule 280, Section 312. The subcontractor shall have its registration number visible and readable by the public without having to be asked by the public. Additional information on Subcontractor Registration requirements, submittal and current fees can be found at

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

Section 3. Selection of Control Measures

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 in Section 4 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 Section 4 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.

Category A. Vehicles/Motorized Equipment

A.1 Unpaved Staging Areas, Unpaved Parking Areas, and Unpaved Material Storage Areas

- P C Apply water
- 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 Apply and maintain gravel, recycled asphalt, or other suitable material
- P C Apply and maintain dust suppressant(s), other than water
- 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; 1) list the maximum number of vehicle trips on the unpaved parking/staging/material storage areas each day (including number of employee vehicles, earthmoving equipment, haul trucks and water trucks), 2) provide a description of how vehicle speeds will be restricted to no more than 15 m.p.h., and 3) specify which area(s) this will apply to:
- _____
- P C Other: _____
- _____

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

A.2 Unpaved Access Areas/Haul Roads

- P C Apply water
- 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 Apply and maintain surface gravel, recycled asphalt, or other suitable material
- P C Apply and maintain dust suppressant(s), other than water
- 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; 1) list the maximum number of vehicle trips on the unpaved parking/staging/material storage areas each day (including number of employee vehicles, earthmoving equipment, haul trucks and water trucks), 2) provide a description of how vehicle speeds will be restricted to no more than 15 m.p.h., and 3) specify which road(s) this will apply to:
- _____
- 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 _____

Category B. Disturbed Surface Areas

B.1 Before Active Operations occur

- P C Pre-water site to the depth of cuts
- P C Phase work to reduce the amount of disturbed surface area at any one time. **Attach a map** delineating the phases and their extent
- P C Other: _____

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

B.2 During Active Operations

- P C Apply water or other suitable dust suppressant(s) other than water
- P C Apply water to maintain a soil moisture content at a minimum of 12% or at least 70% of the optimum soil moisture content for areas that have an optimum moisture content for compaction of less than 12%
- P C In conjunction with one of the above listed measures construct fences or three-foot to five-foot high wind barriers with 50% or less porosity adjacent to roadways or urban areas to reduce the amount of windblown material leaving the site
- 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 _____

B.3 Stabilization for any inactive period, of any length, 24 hours per day, seven days per week including weekends, after work hours, and holidays

- P C Apply water
- P C Apply and maintain surface gravel or dust suppressant(s) other than water
- P C Cover open storage piles with tarps, plastic or other materials such that wind will not remove the covering(s)
- P C Establish vegetative ground cover (landscaping)
- P C Other: _____

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

B.4 Permanent Stabilization of Disturbed Surface Areas required within ten days following the completion of the Dust-Generating Operation if finished for a period of 30 days or longer

P C Pave

P C Apply and maintain gravel, recycled asphalt, or other suitable material

P C Apply and maintain dust suppressant(s) other than water

P C Establish vegetative ground cover (landscaping)

P C Implement above control measures and restrict vehicle access to the area

P C Apply water and prevent access/trespass by:

(Check all of the following that apply)

ditches

fences

berms

shrubs

trees

other

P C Restore area such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby undisturbed native conditions (desert xeriscaping)

P C Other: _____

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

Category C. Bulk Material Handling

C.1 Off-Site Hauling onto Areas Accessible to the Public

- P **Required:** Install, maintain, and use a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of haul trucks and/or motor vehicles that traverse the site
- P **Required when a cargo compartment is loaded:** cover haul trucks with a tarp or other suitable closure **AND** load all haul trucks such that the freeboard is not less than 3 inches **AND** load all haul trucks such that at no time shall the highest point of the bulk material be higher than the sides, front, and back of the cargo container area **AND** prevent spillage or loss of bulk material from holes or other openings in the cargo compartment
- P **Required when a cargo compartment is empty:** cover haul trucks with a tarp or other suitable closure **OR** clean the interior of the cargo compartment before leaving the site

NOTE: The following options CANNOT be considered for a *primary* control measure.

- C Apply water to the top of the load
- C Apply dust suppressant(s) other than water to the top of the load
- C Cease operations
- C Other: _____

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

C.2 Hauling/Transporting within the Boundaries of the Work Site but not crossing an Area Accessible to the Public

- P C Limit vehicle speed to 15 m.p.h. or less while traveling on the work site
- P C Apply water to the top of the load
- P C Apply dust suppressant(s) other than water to the top of the load
- P C Cover haul trucks with a tarp or other suitable closure
- 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 _____

C.3 Hauling/Transporting within the Boundaries of the Work Site and crossing and/or accessing an Area Accessible to the Public

P C **Required:** Load all haul trucks such that the freeboard is not less than 3 inches **AND** load all haul trucks such that at no time shall the highest point of the bulk material be higher than the sides, front, and back of the cargo container area **AND** prevent spillage or loss of bulk material from holes or other openings in the cargo compartment **AND** install suitable trackout control device

NOTE: The following options CANNOT be considered for a *primary* control measure.

C Cease operations

C Other: _____

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

C.4 Bulk Material Stacking, Loading, and Unloading Operations

P C **Prior to** stacking, loading, and unloading, **mix** material with water or a dust suppressant other than water **AND** **While** stacking, loading, and unloading, **apply** water or a dust suppressant other than water to material

NOTE: These following options CANNOT be considered for a *primary* control measure.

C Cease operations

C Other: _____

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

C.5 Open Storage Piles

P C Cover open storage piles with a tarp, plastic, or other material,

P C Apply water to maintain soil moisture content at a minimum of 12% or maintain at least 70% of the optimum soil moisture content, for areas that have an optimum moisture content for compaction of less than 12%

P C Maintain a visible crust,

P C In conjunction with the two measures above, construct and maintain wind barriers, storage silos, or a three-sided enclosure with walls, whose length is no less than equal to the pile length, whose distance from the pile is no more than twice the height of the pile, whose height is equal to the pile height, and whose porosity is no more than 50%

P C Other: _____

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

Category D. Trackout, Carry-out, Spillage, and Erosion

D.1 Trackout Control Device

A trackout control device must be installed if a work site has 2 acres or more of disturbed surface area or if a work site has 100 cubic yards of bulk material hauled on-site or off-site per day.

P Required: Install at all exits to an area accessible to the public at least one of the following:
(Choose all that apply)
 gravel pad grizzly or rumble grate wheel wash system paved area

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 _____

D.2 Cleaning

Trackout/carry-out must be cleaned up immediately if trackout/carry-out extends a cumulative distance of 25 linear feet or more along an area accessible to the public including curbs, gutters, and sidewalks.

All other trackout/carry-out must be cleaned up no later than the end of the workday (End of Work Day is the end of a working period that may include one or more work shifts. If working 24 hours a day, the end of a working period shall be considered no later than 8:00 p.m.).

P C Operate a street sweeper or wet broom with sufficient water and at the manufacturer's recommended speed (e.g. kick broom, steel bristle broom, Teflon broom, vacuum)

P C Manually sweep-up deposits

P C Other: _____

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

Category E. Weed Abatement by Discing or Blading

E.1 Disturbance Operations

P **Required:** Pre-water site **AND** apply water during weed abatement by discing or blading

NOTE: The following options CANNOT be considered for a *primary* control measure.

C Cease operations

C Other: _____

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

E.2 Stabilization

P C Pave immediately following weed abatement

P C Apply gravel

P C Apply water

P C Apply dust suppressant(s) other than water

P C Establish vegetative ground cover (landscaping)

P C Other: _____

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

Category F. Blasting Operations

P **Required:** Pre-water **AND** maintain surface soils in a stabilized condition where support equipment and vehicles will operate

P C Apply water

P C Apply and maintain dust suppressant(s) other than water

C Other, NOTE: This option CANNOT be considered a *primary* control measure. _____

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

Category G. Demolition Activities

- P** **Required:** Apply water or water in combination with dust suppressant(s) to demolition debris immediately following demolition activity
AND
Required: Apply water or water in combination with dust suppressant(s) to all surrounding areas and to all disturbed soil surfaces immediately following demolition activity

NOTE: The following options CANNOT be considered for a *primary* control measure.

- C** Thoroughly clean debris from paved and other surfaces following demolition activity
- C** Other: _____

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

Category H. Wind-Blown Dust

- P** **Required:** Ensure that all control measures and requirements of this Dust Control Plan are implemented and the subject violations cannot be prevented by better application, operation, or maintenance of these measures and requirements

- P** **C** Cease operations for the duration of the wind event and stabilize work area by meeting at least one of the following standards:
- Maintain a soil crust,
- OR**
- Maintain a threshold friction velocity (TFV) for disturbed surface areas corrected for non-erodible elements of 100 cm/second or higher,
- OR**
- Maintain a vegetative ground cover (landscaping)

- P** **C** Other: _____

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

Category J. Dust Suppressants other than water

Although water is a dust suppressant, the information required by Category J should not include information on water supply and water application. The information required by Category J is for all other dust suppressants that you use. Fill out the applicable areas in the table below and attach information on environmental impacts and approvals or certifications related to appropriate and safe use for ground application. Also, attach product specification(s) and application sheet(s) or label instructions.

Application Area	Manufacturer Name	Product	Application Frequency *	Intensity**
A Vehicles/Motorized Equipment				
B Disturbed Surface Areas				
C Bulk Material Handling				
D Trackout, Carry-out, Spillage, and Erosion				
E Weed Abatement by Discing or Blading				
F Blasting Operations				
G Demolition Activities				
H Wind Event				

*How often the surface will receive a complete application of dust suppressant (e.g. 3 times a day)

**The amount used over a period of time (e.g. gallons/minute)

Section 4: Guidance and Instructions
EXAMPLES FOR CORRECTLY COMPLETING DUST CONTROL PLAN

EXAMPLE FOR USE OF THE "NOT APPLICABLE" OPTION

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 per space provided, (including number of trucks) and a description of how vehicle speed is controlled. **This is an INCORRECT EXAMPLE.** no more than 15 m.p.h. In the access areas/haul roads each day (including number of trucks) and a description of how vehicle speed is controlled.
- P C Cease operations, NOTE: This option CANNOT be considered a *primary* control measure.
- P C Other: _____

WHY? If a Control Measure is "not applicable" you must provide an explanation for why.

Or, explain why this sub-category and its control measures are not applicable N/A

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 per space provided, (including number of trucks) and a description of how vehicle speed is controlled. **This is a CORRECT EXAMPLE of a completed "not applicable" statement with a full explanation.** no more than 15 m.p.h. In the access areas/haul roads each day (including number of trucks) and a description of how vehicle speed is controlled.
- P C Cease operations, NOTE: This option CANNOT be considered a *primary* control measure.
- P C Other: _____

This is a CORRECT EXAMPLE of a completed "not applicable" statement with a full explanation.

Or, explain why this sub-category and its control measures are not applicable N/A because there will not be any operations of this type being performed as part of this project

EXAMPLES FOR CORRECTLY COMPLETING PART 3 – DUST CONTROL PLAN (continued)

EXAMPLE FOR USE OF CHECKBOXES

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 trip space provided, (including number and how vehicle speed is limited to no more than 15 m.p.h. In the access areas/haul roads each day and water trucks) and a description of how vehicle speed is limited.

This is an INCORRECT EXAMPLE.
WHY? If a Control Measure checkbox is blacked out it CANNOT be used.



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 _____

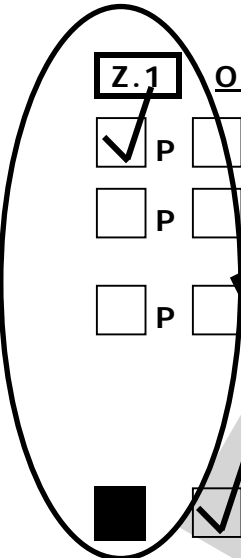
Z.1 Operations

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 trip space provided, (including number and how vehicle speed is limited to no more than 15 m.p.h. In the access areas/haul roads each day and water trucks) and a description of how vehicle speed is limited.

This is a CORRECT EXAMPLE of how to use available Control Measure checkboxes and avoid using non-available Control Measure checkboxes.



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 _____

4(a). GENERAL INFORMATION

Unlisted Dust Control Measures

You may choose to use dust control measures not currently listed in Section 3 of the Dust Control Plan. Such unlisted dust control measures will be reviewed by the Maricopa County Air Quality Department which may require additional information regarding the control measure effectiveness. Any unlisted dust control measure must clearly meet the dust control requirements of Rule 310 for any dust-generating operation.

MCAQD will apply the following minimum criteria when evaluating any unlisted dust control measures:

- The dust control measure technique is a new or alternative technology that is demonstrated to be equally or more effective in meeting the dust control requirements than the existing dust control measures provided in the Dust Control Permit Application.
- Site logistics do not practically allow for implementation of a listed dust control measure as written (e.g., road width or pre-existing barriers limit the size or width of a gravel pad)
- The owner and/or operator demonstrates that a listed dust control measure is technically infeasible due to site-specific or material-specific conditions, such that implementation of the dust control measure will not provide a benefit in reducing fugitive dust (e.g., pre-soaking screened, washed rock when handling).

Written explanation and/or documentation may be required when including unlisted dust control measures in a Dust Control Plan.

Opacity

Rule 310, Section 303 (Visible emissions requirements for Dust-Generating Operations) requires visible fugitive dust emissions to not exceed 20% opacity. As a general rule of thumb, if at any time you can see dust being generated by equipment operations, it is already at least 10% opacity.

Opacity is measured by looking through the dust plume, while the sun is at your back. If more than 20% of the background is obscured, then the opacity is greater than 20%. Appendix C – Fugitive Dust Test Methods contains information and other sources that more fully describe this concept. (See http://www.maricopa.gov/aq/divisions/planning_analysis/AdoptedRules.aspx for an online version of Appendix C).

Making Changes to an Approved Dust Control Plan

You might have to change your Dust Control Plan if fugitive dust emissions from your project exceed the standards in Rule 310, even though you are following your Dust Control Plan. You might also have to change your Dust Control Plan if the permit holder changes.

If you change your Dust Control Plan because you have been notified that fugitive dust emissions from your project exceed the standards in Rule 310, even though you are following your Dust Control Plan, then you must submit a revised Dust Control Plan to the Control Officer within three working days of being notified that your original Dust Control Plan is not effective. During the time that you are preparing revisions to your Dust Control Plan, you must still comply with all of the requirements of Rule 310.

In order to change your Dust Control Plan for any other reason, Maricopa County accepts the following permit modification forms:

Permit Plan Change

Form requires permit holder name and address, reason for the change, and areas of the plan to be changed. If applicable, a revised Dust Control Plan must be submitted with the form and a new site plan may be required.

If Rule 310 is revised

If any changes to a Dust Control Plan associated with a Title V permit or with a Non-Title V permit are necessary as a result of the most recent revisions of this rule, then the owner and/or operator shall submit a revised Dust Control Plan to the Control Officer, according to the minor permit revision procedures described in Rule 210 or in Rule 220 of this rules respectively, no later than six months after the effective date of the most recent revisions to this rule.

4(b). Control Measures

Water

When planning a contingency control method, do not choose water if it is already your primary control method. Maricopa County assumes that you will apply enough water to control dust, until it becomes an infeasible option.

Ceasing operations

Keep in mind that weather conditions play a big part in dust control and may require that you cease operations. While not appropriate in all situations, ceasing operations is an acceptable contingency measure many businesses currently use. Due to the common use of this control measure and to clarify when its use is appropriate the cease operations option has been included as a contingency option in several places in the Dust Control Plan. At the least it requires you to stop operations, evaluate why your primary control measure is not working, and make corrections. Ceasing operations lasts as long as it takes to resolve or abate the dust control issue.

Vehicle speed

Vehicle speed is not an acceptable dust control measure for all dust-generating operations. Where vehicle speed is an option for dust control, you must indicate the maximum number of vehicle trips that will be allowed, how the speed of such vehicles will be limited, and what areas or roads the limits will apply to.

Vegetative ground cover

If you choose “establish vegetative ground cover” as a control measure, you must comply with at least one of the following standards. These standards are also described in Rule 310, Section 304.3 – Stabilization requirements for Dust-Generating Operations – Disturbed Surface Area:

- Maintain a flat vegetative cover (i.e., attached/rooted vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind) that is equal to at least 50%;
- Maintain a standing vegetative cover (i.e., vegetation that is attached/rooted with a predominant vertical orientation) that is equal to or greater than 30%;
- Maintain a standing vegetative cover (i.e., vegetation that is attached/rooted with a predominant vertical orientation) that is equal to or greater than 10% and where the threshold friction velocity is equal to or greater than 43 cm/second when corrected for non-erodible elements; or
- Maintain a percent cover that is equal to or greater than 10% for non-erodible elements.

Surface gravel, recycled asphalt, or other suitable material

If you choose “apply and maintain surface gravel, recycled asphalt, or other suitable material” as a control measure for unpaved haul roads/access areas, you must comply with the following standard. This standard is also described in Rule 310, Section 304.2 – Stabilization requirements for Dust-Generating Operations – Unpaved Haul/Access Roads:

- Do not allow visible dust emissions to exceed 20% opacity and either do not allow silt loading to be equal to or greater than 0.33 oz/ft² or do not allow silt content to exceed 6%.

If you choose to “apply and maintain surface gravel, recycled asphalt, or other suitable material” as a control measure for unpaved parking areas, you must comply with the following standard. This standard is also described in Rule 310, Section 304.1 – Stabilization requirements for Dust-Generating Operations – Unpaved Parking Lot:

- Do not allow visible fugitive dust emissions to exceed 20% opacity and either do not allow silt loading to be equal to or greater than 0.33 oz/ft² or do not allow silt content to exceed 8%.

More detail on opacity and silt loading can be found in Appendix C – Fugitive Dust Test Methods at http://www.maricopa.gov/aq/divisions/planning_analysis/AdoptedRules.aspx

4(c). CONTROL MEASURES INSTRUCTIONS

What follows is a listing of the ten category headings that corresponds to the same category headings in Section 3 of the Dust Control Plan. Under each of the ten category headings that follow are questions to ask and concepts to consider when designing your Dust Control Plan. You must comply with the work practice standards described in Rule 310 and you must implement, as applicable, the dust control measures in Rule 310, Section 305. Section 305 describes primary and contingency dust control measures for a variety of dust-generating operations.

When completing the Dust Control Plan, use this listing to select dust control measures for your project. Changes to the Dust Control Plan may be made after the application is approved by submitting a Permit Plan Change Form to the Maricopa County Air Quality Department. See information provided previously regarding making changes to an approved Dust Control Permit and Dust Control Plan.

Vehicles/Motorized Equipment

Unpaved Staging Areas, Unpaved Parking Areas, and Unpaved Material Storage Areas

What areas have you set aside for parking, including areas where your employees and contractors will be parking their vehicles? What areas have you set aside for material staging? How will you keep vehicles, including the public, employees, subcontractors, utilities, and project inspectors, in areas intended for travel? Paving is acceptable as a primary control measure, if paving is done at the beginning of a project.

Unpaved Access Areas/Haul Roads

Will you be operating, hauling, or delivering equipment or materials using unpaved areas? Unpaved haul roads/access areas are unpaved roads or designated access areas for vehicles or delivery trucks. On most single residential sites, the haul road is typically the future driveway. Paving is acceptable as a primary control measure, if paving is done at the beginning of a project.

Disturbed Surface Areas

Before Active Operations

Create a plan to minimize dust before you start site work. For example Rule 310, Section 305.11 describes dust control measures to implement before site work begins. According to Section 305.11 you must either pre-water the site to depth of cuts, allowing time for penetration, or you must phase work to reduce the amount of disturbed surface areas at any one time.

If you choose to pre-water the site, you should pre-water the areas to be disturbed prior to commencing a dust-generating operation. A rule of thumb is 1 acre-foot of water (325,851 gallons) per acre of land. Pre-watering areas to depth of cuts will reduce the amount of water required for dust control. Pre-watering does not mean flooding the area to be disturbed, which may make the area unworkable. Nor does it mean allowing the watered area to dry-out before the dust-generating operation occurs, since that would prevent adequate dust control.

If you choose to phase work as a dust control measure to reduce the amount of disturbed surface areas at any one time, you must show how you will phase the project to create the least amount of disturbance at any one time. You may use the project site

drawing to show the various project phases, along with a time line showing relative start and stop times. Indicate on the application that you have shown the various project phases on the project site drawing.

During Active Operations

Water must be applied continuously in front of or in conjunction with a scraper/grader/dozer. Water applied behind equipment is usually intended for compaction purposes and not dust control. If a water truck is required to leave the project site for refilling, the contingency measure must be implemented, as needed, to comply with Rule 310, Section 303 – Visible emissions requirements for Dust-Generating Operations.

If you choose to limit vehicle speed, you must indicate the maximum number of vehicle trips that will be allowed and how the speed of such vehicles will be limited.

Stabilization for any inactive period, of any length, 24 hours per day, seven days per week including weekends, after work hours, holidays

How are you going to stabilize your site during non-work hours including any and all times there are no active operations occurring but the site has not been permanently stabilized? How will you control wind generated dust?

Permanent Stabilization of Disturbed Surface Areas required within ten days following the completion of the Dust-Generating Operation if finished for a period of 30 days or longer

How will the open areas of the site be permanently stabilized? How will the site be stabilized if construction is halted?

Open areas and vacant lots need to remain stabilized (i.e., maintain a visible crust, vegetation, or surface gravel) and inaccessible to motorized vehicles. When your site is permanently stabilized and your project is complete, you should cancel your Dust Control Permit. Maricopa County has permit cancellation request forms available at 1001 N. Central Avenue, 4th Floor, or you can download the form from: <http://www.maricopa.gov/aq/divisions/compliance/dust/resources.aspx>

Bulk Material Handling

Off-Site Hauling onto Paved Areas Accessible to the Public

Will you be conducting debris clean up or lot clean up? Will you be exporting materials?

Hauling/Transporting within the Boundaries of the Work Site but not crossing a Paved Area Accessible to the Public

Will you be moving dirt or rock from one area to another area on your site?

Hauling/Transporting within the Boundaries of the Work Site and Crossing and/or accessing a Paved Area Accessible to the Public

Crossing a paved area is when you are traveling perpendicular to the paved area, typically entering and leaving it with the primary purpose of arriving at a destination on the other side. If you are not crossing a paved area (not traveling perpendicular to a paved area), then you are traveling along the paved area. Traveling along the paved area may take you outside the work area, unless such area has been barricaded to public travel.

Bulk Material Stacking, Loading, and Unloading Operations

Will you be trenching, backfilling, and/or importing/exporting Bulk Material?

Stacking, loading, and unloading operations include any time Bulk Materials are loaded into a truck or when materials are put into spoils piles from trenching operations.

If you choose to use water to control dust for cut and fill activities, a rule of thumb is (1) 10,000 gallon water pull for each 7,000 cubic yards of material moved per day. When determining the total amount of water necessary for a project, another rule of thumb is that it takes at least 30 gallons of water to control dust from each cubic yard of material to be moved.

Open Storage Piles

How will you control dust from storage or spoils piles? Will you have spoils and/or storage piles for any length of time?

Open storage piles include piles that are on-site for any length of time. If you apply water or dust suppressant(s) to open storage piles when not conducting stacking, loading, and unloading operations, make sure that you limit unauthorized vehicle access to the area.

Trackout, Carry-out, Spillage, and Erosion

Trackout Control Device

What will you use as a trackout control device if trenching removes an existing gravel pad? What will you use as a control device during curb and gutter installation? How will you direct traffic to the designated exit locations and restrict traffic from using other exit points?

Trackout control devices are preventative devices intended to reduce the amount of dirt transferred onto paved areas and entrained into the atmosphere. Trackout control devices are required at every exit to a paved area accessible to the public (any retail parking lot or public roadway that is open to public travel primarily for purposes unrelated to the dust-generating operation) for job sites 2

acres or larger or when 100 cubic yards of bulk material are hauled on-site or off-site per day. Trackout control devices include, but are not limited to, the following:

Gravel Pad

A layer of washed gravel, rock, or crushed rock that is at least one inch or larger in diameter that is maintained at the point of intersection of a paved area accessible to the public and a work site entrance to dislodge mud, dirt, and/or debris from the tires of motor vehicles and/or haul trucks, prior to leaving the work site.

Grizzly or Rumble Grate

A device (i.e., rails, pipes, or grates) used to dislodge mud, dirt, and/or debris from the tires and undercarriage of motor vehicles and/or haul trucks prior to leaving the work site.

Paving

Application and maintenance of asphalt, concrete, or other similar material to a roadway surface (i.e., asphaltic concrete, concrete pavement, chip seal, or rubberized asphalt).

Wheel Wash System

A system, station, or device either temporary or permanent, that utilizes a bath or spray of water for the purpose of cleaning mud, soil, and rock from the tires and undercarriage of vehicles to prevent tracking of those materials onto paved surfaces.

Rule 310, Section 306 addresses dust control measures for trackout control. According to Section 306 you must prevent trackout by installing, at all access points to the site, a trackout control device such as a grizzly or rumble grate, a wheel wash system, or a gravel pad, defined in Rule 310, Section 217 to be at least 30 feet wide, 50 feet long, and 3 inches deep. Or you must pave starting from the point of intersection with a paved area accessible to the public and extending for a centerline distance of at least 100 feet and a width of at least 20 feet.

It is a violation of Rule 310 if your site is required to have a trackout control device and does not, regardless of whether trackout is present.

Cleaning

Trackout/carry-out is 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. You are required to immediately clean trackout/carry-out extending 25 feet or more. Trackout/carry-out that is less than 25 feet requires cleaning by the end of the work day. During import/export operations and following rain events, cleaning may need to be done on a consistent basis to control trackout/carry-out.

Cleaning trackout/carry-out includes removing any and all bulk material that has been deposited onto public roadways, medians, gutters, and sidewalks. Cleaning trackout/carry-out can be accomplished by manually sweeping up the deposits, by operating a street sweeper or wet broom, or by power washing. Some street sweepers (e.g., street sweepers with steel brushes) are more efficient than others, especially on stubborn trackout/carry-out.

Be sure to check other applicable regulations. For instance, some work sites are located in areas where the paved areas may not be cleaned by power washing with water due to Storm Water Pollution Prevention Plans (SWPP), National Pollutant Discharge Elimination Standards (NPDES), or Arizona Pollutant Discharge Elimination System (AZPDES).

It is a violation of Rule 310 if you have not cleaned trackout/carry-out, regardless of whether a trackout control device is present. If a street sweeper has been chosen as the primary control measure and is needed immediately but is not available, then you must employ the contingency measure.

Weed Abatement by discing or blading

If this is a long project, will weed removal or weed control be an issue in the future? Weed abatement for the purpose of this question is the removal of a weed and its roots by turning over the soil, usually with a disc or blade implement, thereby disturbing the surface area and removing a means of stabilizing the surface area.

Blasting operations

Will blasting be conducted for removal of structural concrete? Is there an available site for stockpiling material? Will underlying material require blasting?

Demolition activities

If concrete removal quantity is sizable, is there an available dump site? Has dust control for this staging or storage area been addressed?

Dust Suppressants other than water

Although water is a dust suppressant, the information required by Table J in Section 3 in the Dust Control Plan should not include information on water supply and water application systems.

The information required by Table J in Section 3 of the Dust Control Plan is for all other dust suppressants that you use. Fill out the applicable areas in Table J in Section 3 of the Dust Control Plan. Be sure to attach information on environmental impacts and approvals or certifications related to appropriate and safe use for ground application. Also, attach product specification(s) and application sheet(s) or label instructions.

Different types of soil require more intensive water use or the use of water in combination with dust suppressants, in order to meet the requirements of Rule 310. Brief descriptions of dust suppressants and related information can be found in the next segment of these instructions.

4(d). DUST SUPPRESSANTS SUMMARY

Dust suppressants are defined in Rule 310 as: water, hygroscopic material, solution of water and chemical surfactant, foam, non-toxic chemical stabilizer or any other dust palliative, which is not prohibited for ground surface application by the Environmental Protection Agency (EPA) or the Arizona Department Of Environmental Quality (ADEQ) or any applicable law, rule, or regulation, as a treatment material for reducing fugitive dust emissions.

Dust suppressants work by either agglomerating the fine particles, adhering/binding the surface particles together, or increasing the density of the road surface material. They reduce the ability of the surface particles to be lifted and suspended by either vehicle tires or wind and non-water suppressants do so with a minimum amount of added water and usually a longer useful life than water alone.

One important factor in evaluating dust suppressants is the long-term monetary cost versus that of water alone. Environmental impacts of both methods on water quality and plant life must also be considered.

More detail can be found on the MCAQD Dust Compliance website at: www.maricopa.gov/aq/divisions/compliance/dust/resources.aspx

DUST SUPPRESSANT CATEGORIES:

- 1. Water-Attracting Chemicals:** Chlorides, Salts, Brine Solutions.
- 2. Organic, Non-Bituminous Chemicals:** Lignosulfonates, Sulphite, Liquors, Tall Oil Pitch, Pine Tar, Vegetable Oils, Molasses.
- 3. Electro-Chemical Stabilizers:** Sulphonated Petroleum, Ionic Stabilizers, Bentonite.
- 4. Polymers:** Polyvinyl Acrylics, Acetates.
- 5. Microbiological Binders:** Cryptogams, Blue-Green Algae Inoculants, Enzyme Slurries.

DUST SUPPRESSION TECHNOLOGIES:

In addition to categories of dust suppressants, the subject can also be divided by dust suppression technologies including the following:

- 1. Wetting Agents:** Surfactant (see below) formulations that improve the ability of water to wet and agglomerate fine particles.
- 2. Foaming Agents:** Surfactant formulations used to convert water and air into a dry, stable, small-bubbled foam with a consistency similar to shaving cream.
- 3. Binding/Agglomerating Agents:** Performs similar functions as wetting and foaming agents but provides a longer residual effect than water alone and thus is used when it is either impractical or uneconomical to control dust using just water technologies.
- 4. Crusting Agents:** Binding agents that are chemically similar to latex paint in that their primary active components are water-based latex polymers that cure to form a mechanically stable water-insoluble film.

DUST SUPPRESSION MATERIALS:

- 1. Surfactants:** Surface-active agents, make water more efficient by making water "wetter", lowering its surface tension allowing drops of water to spread out and contact surfaces more effectively
- 2. Tackifiers:** Substances used with water to hold together mulches and other dust suppressants, binding small particles together without forming a hard crust
- 3. Flocculants:** Chemicals that cause a dispersed colloidal system (such as clay) to coagulate and form flocs. Most flocculants are either multivalent cations such as calcium, magnesium, aluminum, or ion polymers. High pH, high salinity, and high temperature can also cause clay flocculation.

4(e). ADDITIONAL ASSISTANCE

You can reach the MCAQD Dust Compliance Division offices at 1001 North Central Avenue, Suite 400 in Phoenix, Arizona, by calling 602-506-6010, or on their website at www.maricopa.gov/aq/divisions/compliance/dust

Additional useful information and websites are listed below:

- Dust Compliance main webpage: www.maricopa.gov/aq/divisions/compliance/dust/Default.aspx
- MCAQD Complaint Line for all complaints including dust related items: 602-506-6010
- Dust Compliance resources including:
 - Sample Dust Control Logs
 - Applications
 - Other Forms

- Informational brochure can be found at www.maricopa.gov/aq/divisions/compliance/dust/resources.aspx
- Information on current fees can be found on the MCAQD's web site: www.maricopa.gov/aq/divisions/permit_engineering/permit_fees.aspx
- Questions concerning Asbestos NESHAP regulations should be referred to the Maricopa County's Asbestos NESHAP Coordinator at 602-506-6708 or 602-506-0421. Forms, contacts, regulations and additional information not covered in the application package may be obtained on the MCAQD website at http://www.maricopa.gov/aq/divisions/compliance/air/asbestos_neshap/Default.aspx
- Maricopa County Air Pollution Control Regulations Rule 200 (Permit Requirements) and Rule 310 (Fugitive Dust from Dust-Generating Operations) which contain information regarding the requirements and work practices associated with this application can be found at: www.maricopa.gov/aq/divisions/planning_analysis/AdoptedRules.aspx
- Document Request Forms, in the event the permit and application are not received after the processing and mail period have passed: www.maricopa.gov/materials/Document_Request/public_record_request.asp
- Assistance in completing the application may be available by calling the Training Line at 602-372-1467 or online at: <http://www.maricopa.gov/aq/divisions/compliance/dust/Default.aspx>

4(f). INSTRUCTIONS FOR COMPLETING THE DUST CONTROL PLAN

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 Control Measure Instructions on 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).**
- 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 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 Plan has been approved, you must post your Dust Control Plan on-site, as required by Rule 310, Section 409

Rule 310, Section 302.3 (Dust Control Plan requirements) requires the submission of a Dust Control Plan with your application. You may fill out Section 3 of the Dust Control Plan and submit it as your Dust Control Plan or you may write your own Dust Control Plan describing all dust control measures to be used during the project and submit it for approval as your Dust Control Plan. Once approved, the Dust Control Plan must be posted in a conspicuous location at the work site, within on-site equipment, or in an on-site vehicle, or otherwise kept available on-site at all times (Rule 310, Section 409). Additionally, according to Rule 310, Section 401.2 complete copies of the approved Dust Control permit, including the Dust Control Plan, must be supplied to all project contractors and subcontractors.